

TEACHER EFFECTIVENESS: ROLE OF ADVERSITY QUOTIENT, ALIENATION AND CHANGE PRONENESS

A Thesis

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award of the degree of

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in
Education

By
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DECLARATION

I, Simranjit Cour, hereby declare that the doctoral thesis entitled, "*Teacher Effectiveness: Role of Adversity Quotient, Alienation and Change Proneness*", submitted for awarding the degree of Doctor of Philosophy in Education to School of Education, Lovely Professional University under the abled supervision of Dr. Nimisha Beri, Professor, Lovely Professional University, is an original work. No part or share of this thesis has been previously established for the basis to award any fellowship or degree.



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CERTIFICATE

This is to certify that the doctoral dissertation prepared by Simranjit Cour, entitled as, “***Teacher Effectiveness: Role of Adversity Quotient, Alienation and Change Proneness***”, to award the degree of Doctor of Philosophy in Education by Lovely Professional University, has been prepared and completed under my supervision and guidance. The work has been carried out by her at the School of Education, Lovely Professional University, Phagwara, Punjab.

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ABSTRACT

A teacher plays an essential part in moulding and developing the overall personality of the students thereby shaping our society. They not only promulgate education but also, value sets that are advanced forward from one generation to another. Therefore, it is vitally important that teachers ought to be effective. The personality of a teacher is not only reflected by him or her but also radiated by his or her students as they hold a high pedestal of being “Guru” who foster a good value system in the students who are the future of our country. Effective teachers are able to expose and explore the potential of the ones who come in contact with them. Therefore, in the educational system, effective teachers are more cardinal than any other factors of education taken together. A teacher ought to be a coalesced individual, competent in arts and sciences of the human relations and resilience. The teachers should be conscious of behavioural patterns in the world as they have to be well accommodated and adjusted accordingly. Therefore, being prone to change helps in the enhancement of teacher effectiveness. Maladjustment at school and various day to day challenges deteriorates the effectiveness of teachers and also has a negative impact on their students. Therefore, it is important for a teacher to have adversity quotient apart from intelligence quotient and also it is essential to study the negative role of the phenomena of alienation on teacher effectiveness. In today’s changing era of the 21st century, teachers face contemporary challenges. There are rapid changes in teaching line with rapid growth of researches in education field and education technology. This requires greater efforts on the part of teachers. Therefore, this study has been conducted for studying role of adversity quotient, alienation and change proneness on teacher effectiveness of teachers.

In this study, the main objectives are, “To study the levels of teacher effectiveness, adversity quotient, alienation and change proneness among teachers; To find the difference in teacher effectiveness, adversity quotient, alienation and change proneness of teachers with respect to type of school, gender and experience; To study the relationship of teacher effectiveness with adversity quotient, alienation and change proneness of teachers; To study the role of adversity quotient, alienation and change proneness on teacher effectiveness of teachers”. In this study, the factors for choosing

the districts from each region are the ones having the highest population, highest number of schools and teachers in each region with an additional constraint of literacy rate above 75%. So, two districts from Majha region (Amritsar and Gurdaspur), two districts from Doaba region (Hoshiarpur and Jalandhar) and two districts from Malwa region (Ludhiana and Patiala) of Punjab (India) have been selected which constitute 50% (49.9%; n=84281) secondary school teacher population of Punjab. The school selection from the selected districts of each region of Punjab was done through purposive sampling technique wherein only those schools were to be chosen where teachers from all categories of experience i.e. low (less than five years of experience), average (five to ten years of experience) and high (more than ten years of experience) respectively would be available. Due to hesitation of some teachers to fill data, the researcher had to proceed with convenient sampling for selection of teachers from the selected schools. The data collection was done physically in person with the respondent teachers. The sample size of the present study is five hundred secondary school teachers.

The researcher utilized instruments of research for measuring the constructs viz. teacher effectiveness, adversity quotient, alienation, change proneness of research. “Teacher Effectiveness Scale by Kulsum (2011); Adversity Quotient Scale constructed by the investigator; Alienation Scale modified using Alienation Scale by Ojha (2010) and Change Proneness Inventory by Mukhopadhyay (2012)” were used. The reliability and validity of all the scales were established by statistical packages IBM SPSS-23 and IBM AMOS-23. Content validity, concurrent validity, item analysis, convergent validity, E.F.A. (Exploratory factor analysis), C.F.A. (Confirmatory factor analysis), average variance extracted, composite reliability, Cronbach’s Alpha, overall and dimension-wise z-score norms were established for the scales.

Different kinds of statistical techniques have been applied for the data analysis based on objectives of the study using IBM SPSS-23. Descriptive statistics like mean; standard deviation and Kolmogorov-Smirnov test; Shapiro-Wilk test for normality have been applied for understanding nature of the data which provided evidence of normality. Percentage analysis on teachers’ scores to find out their level (very high to

very low) of teacher effectiveness, adversity quotient, alienation and change proneness has been done. Interaction effect ANOVA has been used to find significant differences in teacher effectiveness, adversity quotient, alienation and change proneness of teachers with respect to “Type of School, Gender and Experience” classified into private and government; female and male; low (experience < five years), average (experience = five-ten years) and high (experience > ten years) respectively. Tukey’s Post-Hoc HSD Test is used for finding the significant difference in-between teachers on teacher effectiveness, adversity quotient, alienation and change proneness with respect to “Experience”. For finding significant differences between various sub-groups after interaction effect ANOVA, t-test has been applied. To analyse the relationship of “Teacher Effectiveness” with adversity quotient, alienation, change proneness of teachers, correlation method viz. Karl Pearson’s coefficient method has been utilised. For studying role of adversity quotient, alienation, change proneness on teacher effectiveness of teachers, regression analysis has been employed.

By percentage analysis, it has come to fore that majority of the secondary school teachers possess “Average” teacher effectiveness level followed by “Above Average, Below Average, Low, High, Very High and Very Low” teacher effectiveness levels. Majority of the secondary school teachers possess average level in preparation for teaching and planning followed by “Above Average, Below Average, Low, Very Low, High, Very High” levels of preparation for teaching and planning. In majority, the secondary school teachers possess average level in classroom management then “Below Average, Low, Very Low, Above Average, High” levels of classroom management. Most of the secondary school teachers possess average level followed by “Above Average, Below Average, Low and Very Low” levels of “Knowledge of subject-matter etc.” Most of the secondary school teachers possess average level in teacher characteristics followed by “Above Average, Below Average, Low, High, Very Low” levels of teacher characteristics. Majority of the secondary school teachers possess average level in interpersonal relations then “Below Average, High, Very High, Low, Above Average, Very Low” levels of interpersonal relations.

Maximum number of the secondary school teachers possess an average level followed by “Below Average, Above Average, Low, High, Very High and Very Low” levels of adversity quotient. Majorly, secondary school teachers possess average level followed by “Above Average, Below Average, Very Low, Low, Very High and High” levels of control. Majority of secondary school teachers have average ownership and endurance level followed by “Above Average, High, Below Average, Low, Very Low and Very High” levels respectively. Majorly, secondary school teachers possess above average level followed by “Average, Below Average, Very Low, Low, High and Very High” levels of reach. Majority of the secondary school teachers possess below average level followed by “Average, Above Average, Low, High, Very Low and Very High” levels of alienation respectively. In majority, the secondary school teachers perceive below average work alienation followed by “Average, Low, Above Average, High, Very Low and Very High” levels respectively. Majorly, the secondary school teachers possess low level followed by “Average, Below Average, High, Above Average, Very High, Very Low” levels of social isolation. Also in majority, the secondary school teachers possess below average level followed by “Average, Very High, High, Above Average, Low and Very Low” levels of cultural estrangement. Most of the secondary school teachers possess average level of change proneness. After this, majority of the study sample of secondary school teachers lie at “Below Average, Above Average, High, Low, Very High and Very Low” levels of change proneness.

In comparative analysis, private secondary school teachers are more effective in “Preparation for teaching and planning, Teacher characteristics and Interpersonal relations” than the government secondary school teachers. The private secondary school teachers and government secondary school teachers are equally effective in their “Classroom management and Knowledge of subject-matter etc.” For teacher effectiveness, the data provides sufficient evidence that private type of schools’ secondary teachers as compared to government type of schools’ secondary teachers are more effective teachers. Female secondary school teachers are more effective in their “Knowledge of subject-matter etc., Interpersonal relations” than male secondary school teachers. The female secondary school teachers and male secondary school

teachers are equally effective in their “Preparation for teaching and planning and Teacher characteristics”. The findings make it quite evident that in teacher effectiveness, female secondary school teachers as compared to male secondary school teachers are more effective teachers.

The secondary school teachers having low, average and high experience do not differ significantly in teacher effectiveness dimensions viz. “Knowledge of subject-matter etc., teacher characteristics”. Teachers of high experience scored more on teacher effectiveness, “Preparation for teaching and planning and Interpersonal relations” than teachers of low experience. Teachers of average experience had scored more in “Classroom management” than teachers of low experience meaning thereby that teachers of average experience are better in handling and managing their classrooms. The teachers in teacher effectiveness dimensions viz. “Preparation for teaching and planning, Classroom management, Interpersonal relations” due to interaction in-between various subgroups aren’t differing significantly. The interaction in-between “Type of School and Gender” of secondary school teachers on teacher effectiveness and its dimensions i.e. “Knowledge of subject-matter etc. and Teacher characteristics” of secondary school teachers was not found insignificant. The teachers’ perception on teacher effectiveness and its dimension i.e. “Preparation for teaching and planning, Classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” due to interaction in-between “Type of School and Experience; Gender and Experience; Type of School, Gender and Experience” for various subgroups isn’t differing significantly.

Private secondary school teachers have more “Adversity Quotient, Control, Ownership and Endurance” comparatively to their government counterparts. The teachers with regards to their “Type of School” have equal reach in adversities at school. Male gender of teachers has better adversity quotient and reach than their female counterparts. Also, the results indicate that teachers with regards to gender, perceive equal control, ownership and endurance. Teachers having experience i.e. low, average and high equally perceive their reach towards adversity. The main effect of experience was found significant for adversity quotient and its dimensions control, ownership and endurance of secondary school teachers. The teachers of high

experience have more adversity quotient than secondary school teachers of low experience. The average experienced secondary school teachers have more adversity quotient in comparison to low experienced secondary school teachers. The secondary school teachers of average experience have more control than secondary school teachers of low experience. The average experienced secondary school teachers have more ownership and endurance in comparison to low experienced secondary school teachers. Interaction in-between “Type of School and Gender; Type of School and Experience; Gender and Experience; Type of School, Gender and Experience” of secondary school teachers on adversity quotient and its dimensions control, ownership and endurance, reach was found to be insignificant.

The government secondary school teachers have more alienation and its dimension i.e. work alienation than private secondary school teachers. The private secondary school teachers have more social isolation and cultural estrangement than government secondary school teachers. The secondary school female teachers and male teachers equally perceive alienation and its dimensions i.e. social isolation and cultural estrangement. Whereas, female secondary school teachers experience more work alienation than the male secondary school teachers. Experience of teachers i.e. low, average and high experience is significantly differing in alienation and its dimension viz. work alienation. The teachers of high experience scored less on alienation than teachers of low experience. Also, the low experienced teachers have more work alienation than high experienced teachers. The main effect of experience on alienation dimensions viz. social isolation and cultural estrangement of teachers has been found insignificant. The interaction in-between “Type of School and Gender; Gender and Experience” of secondary school teachers on alienation and its dimensions viz. work alienation, social isolation and cultural estrangement for various sub-groups does not differ significantly. For alienation and its dimensions i.e. work alienation and cultural estrangement, results of interaction effect of type of school and experience was found to be significant. The perception of teachers on the scores of social isolation as a result of interaction of type of school and experience for various sub-groups does not differ significantly. Secondary school teachers on the scores of alienation and its dimensions work alienation and social isolation as a result of

interaction of type of school, gender and experience for different sub groups does not differ significantly. Also, secondary school teachers' alienation dimension viz. cultural estrangement as a result of interaction of type of school, gender and experience for different sub-groups differs significantly.

Private type of schools' secondary teachers as compared to government type of schools' secondary teachers have higher change proneness. The male gender of teachers has higher change proneness comparatively to its female gender counterparts. Average experienced teachers have higher change proneness comparatively to their low experienced counterparts. The high experienced secondary school teachers have more change proneness than low experienced secondary school teachers. Whereas, secondary school teachers having average experience do not differ significantly in their change proneness from teachers having high experience. Interaction effect of type of school and gender; type of school, gender and experience of secondary school teachers on change proneness is found to be not significant.

In correlation analysis, "Adversity Quotient and its dimensions viz. Control, Ownership and Endurance, Reach" have a significant bivariate correlation with Teacher Effectiveness and its dimensions viz., "Preparation for teaching and planning, Classroom management, Knowledge of subject-matter etc., Teacher characteristics, Interpersonal relations". Alienation and its dimensions i.e. Work Alienation, Social Isolation, Cultural Estrangement have a vice-versa significant negative bivariate correlation with Teacher Effectiveness and its dimensions i.e., Preparation for teaching and planning, Classroom management, Knowledge of subject-matter etc., Teacher characteristics, Interpersonal relations". The correlation between alienation dimension viz. social isolation and teacher effectiveness dimension viz. teacher characteristics is found to be not significant. Change Proneness has a positively bivariate correlation with Teacher Effectiveness and its dimensions viz., "Preparation for teaching and planning, Classroom management, Knowledge of subject-matter etc., Teacher characteristics, Interpersonal relations".

The regression analysis revealed that adversity quotient, alienation, change proneness play a moderately significant role on teacher effectiveness. Alienation

followed by Change proneness and then Adversity quotient contribute respectively the teacher effectiveness. They play a mild significant role on teacher effectiveness dimensions viz. “Preparation for teaching and planning, Classroom management, Knowledge of subject-matter etc., Teacher characteristics, Interpersonal relations” of secondary school teachers. The results indicated good fit models with statistically significant contribution.

Together, the “Adversity Quotient dimensions viz. Control, Ownership and Endurance, Reach”; Alienation dimensions viz. Work alienation, Social isolation, Cultural estrangement and Change proneness play a moderately significant role on teacher effectiveness with better contribution by cultural estrangement and mild by ownership and endurance. Also, they play a mild significant role on teacher effectiveness dimensions viz. “Preparation for teaching and planning, Classroom management, Knowledge of subject-matter etc., Teacher characteristics, Interpersonal relations” of secondary school teachers. The results indicated good fit models. Apart from the insignificant role of alienation dimension viz. social isolation on teacher effectiveness dimension viz. teacher characteristics, the predictors had a statistically significant contribution.

Keywords: Teacher Effectiveness, Adversity Quotient, Alienation, Change Proneness

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Investigator

TABLE OF CONTENTS

Declaration		i
Certificate		ii
Abstract		iii-x
Acknowledgement		xi-xii
Table of Contents		xiii-xiv
List of Tables		xv-xix
List of Figures		xx-xxv
Description of Acronyms		xxvi-xxviii
List of Appendices		xxix
CHAPTER	DESCRIPTION	PAGE NO.
I	BACKGROUD OF THE STUDY	1-83
1.1	Introduction	1-3
1.2	Teacher Effectiveness	3-9
1.3	Review of Related Literature of Teacher Effectiveness	9-23
1.4	Adversity Quotient	24-29
1.5	Review of Related Literature of Adversity Quotient	29-40
1.6	Alienation	41-46
1.7	Review of Related Literature of Alienation	46-56
1.8	Change Proneness	56-61
1.9	Review of Related Literature of Change Proneness	61-72
1.10	Early Studies of Teacher Effectiveness (Dependent Variable) with Adversity Quotient, Alienation and Change Proneness (Independent Variables)	72-73
1.11	Significance of the Problem	73-78
1.12	Statement of the Problem	78
1.13	Operational Definitions of the Terms	78-79
1.14	Objectives	79
1.15	Hypotheses	80-82
1.16	Delimitations	82
1.17	Outline of the Thesis	83

II	METHOD AND PROCEDURE	84-131
2.1	Population/ Sampling Frame	84-85
2.2	Sample	85-89
2.2.1	Procedure	90
2.3	Tools	90
2.4	Description of Adversity Quotient Scale	90-105
2.5	Description of Alienation Scale	106-118
2.6	Description of Change Proneness Inventory	119-123
2.7	Description of Teacher Effectiveness Scale	123-128
2.8	Research Design of the Study	129-130
2.9	Statistical Techniques	130-131
III	ANALYSIS AND INTERPRETATION	132-297
3.1	Introduction	132-134
3.2	Data Screening	134-136
3.3	Descriptive Analysis	136-160
3.4	Comparative Analysis	160-251
3.5	Correlational Analysis	251-263
3.6	Regression Analysis	263-297
IV	CONCLUSIONS, IMPLICATIONS, RECOMMENDATIONS, LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH	298-328
4.1	Objectives of the Study	298
4.2	Hypotheses of the Study	298-300
4.3	Conclusions	300-318
4.3.1	Descriptive Analysis	300-304
4.3.2	Comparative Analysis	304-315
4.3.3	Correlational Analysis	315-317
4.3.4	Regression Analysis	317-318
4.4	Implications and Recommendations	318-325
4.5	Limitations and Directions for Future Research	325-328
	BIBLIOGRAPHY	329-397

LIST OF TABLES

TABLE NO.	DESCRIPTION	PAGE NO.
2.1	Total distribution of population in districts from each region of Punjab	84
2.2	Total population distribution of secondary school teachers in districts from each region of Punjab	85
2.2.1	District-wise percentage literacy rate of population in each region of Punjab	86
2.3	Sample profile with respect to “Type of School, Gender and Experience”	89
2.4	Example of quantitative assessment	92
2.5	Content validity for Adversity Quotient Scale	93
2.6	t-value for various items of the Adversity Quotient Scale	94
2.7	KMO and Bartlett’s Test of Sphericity	95
2.8	Results of the Exploratory Factor Analysis of the Adversity Quotient Scale	96
2.9	Measurement model goodness of fit of Adversity Quotient Scale	97
2.10	Concurrent validity of the Adversity Quotient Scale	101
2.11	Reliability statistics of Adversity Quotient Scale	102
2.12	Scoring procedure of Adversity Quotient Scale	102
2.13	Number of items and different dimensions of Adversity Quotient Scale	103
2.14	z-score norms of Adversity Quotient Scale and its dimensions	104
2.15	z-score norms for interpreting the levels of Adversity Quotient Scale and its dimensions	105
2.16	Content validity for Alienation scale	107
2.17	KMO and Bartlett’s Test of Sphericity	108
2.18	Results of the Exploratory Factor Analysis of the Alienation scale	109
2.19	Measurement model goodness of fit of Alienation scale	110
2.20	Reliability statistics of Alienation scale	115
2.21	Scoring procedure of Alienation scale	116

2.22	Number of items and different dimensions of Alienation scale	116
2.23	z-score norms of Alienation scale and its dimensions	117
2.24	Norms for interpreting the levels of Alienation scale and its dimensions	118
2.25	Scoring procedure of Change Proneness Inventory	119
2.26	Reliability statistics of Change Proneness Inventory	120
2.27	Item-total correlation of the Change Proneness Inventory	121
2.28	z-score norms of Change Proneness Inventory	122
2.29	Norms for interpreting the levels of Change Proneness Inventory	123
2.30	Dimensions of Teacher Effectiveness Scale	124
2.31	Teacher Effectiveness Scale's Reliability Statistics	125
2.32	Convergent validity of the Teacher Effectiveness Scale	126
2.33	z-score norms of Teacher Effectiveness Scale	127
2.34	Norms for interpreting the levels of Teacher Effectiveness Scale and its dimensions and its dimensions	128
3.1	Kolmogorov-Smirnov and Shapiro-Wilk tests of normality of study variables Adversity Quotient, Alienation, Change Proneness, Teacher Effectiveness	135
3.2	Percentage-wise levels of Teacher Effectiveness among teachers	136
3.3	Dimension-wise levels of Teacher Effectiveness among teachers	138
3.4	Percentage-wise levels of Adversity Quotient among teachers	145
3.5	Dimension-wise levels of Adversity Quotient among teachers	147
3.6	Percentage-wise levels of Alienation among teachers	152
3.7	Dimension-wise levels of Alienation among teachers	153
3.8	Percentage-wise levels of Change Proneness among teachers	158
3.9	Descriptive statistics of Teacher Effectiveness with respect to "Type of School, Gender and Experience"	162-163
3.10	2x2x3 ANOVA Summary of Teacher Effectiveness with respect to "Type of School, Gender and Experience"	164
3.11	Tukey's Post-Hoc HSD test summary	171-172
3.12	't'-values Summary for the sub-groups of Teacher Effectiveness	177

	and its dimensions i.e. “Knowledge of subject-matter etc. and Teacher characteristics” of teachers	
3.13	Descriptive statistics summary of Adversity Quotient with respect to “Type of School, Gender and Experience”	188-189
3.14	2x2x3 ANOVA Summary of Adversity Quotient with respect to “Type of School, Gender and Experience”	190
3.15	Tukey’s Post-Hoc HSD test summary	195
3.16	Descriptive statistics of Alienation with respect to “Type of School, Gender and Experience”	203-204
3.17	2x2x3 ANOVA Summary of Alienation with respect to “Type of School, Gender and Experience”	205
3.18	Tukey’s Post-Hoc HSD test summary	210
3.19	‘t’-values summary for the sub-groups with respect to Alienation and its dimensions Work Alienation and Cultural Estrangement of teachers	213-216
3.20	‘t’-values summary for the subgroups with respect to “Cultural Estrangement” of teachers	223-227
3.21	Change Proneness Descriptive statistics with respect to “Type of School, Gender and Experience”	236-237
3.22	2x2x3 ANOVA summary of Change Proneness with respect to “Type of School, Gender and Experience”	238
3.23	Tukey’s Post-Hoc HSD test summary of Change Proneness of teachers with respect to Experience	240
3.24	‘t’-value summary for subgroups of Change Proneness of teachers w.r.t. Type of School x Experience	242-243
3.25	‘t’-values summary for subgroups of Change Proneness of teachers w.r.t. Gender x Experience	246
3.26	Correlation summary of Teacher Effectiveness with Adversity Quotient, Alienation and Change Proneness of teachers	252
3.27	Summary of regression analysis between Adversity Quotient, Alienation, Change Proneness (independent variables) and	264

	Teacher Effectiveness (dependent variable)	
3.28	Summary of ANOVA for regression Analysis	264
3.29	Co-efficient summary for regression Analysis	265
3.30	Regression analysis summary between adversity quotient, alienation, change proneness (independent variables) and “Preparation for teaching and planning” (dependent variable)	266
3.31	Summary of ANOVA for regression analysis	267
3.32	Coefficients summary for regression analysis	267
3.33	Regression analysis summary between adversity quotient, alienation, change proneness (independent variables) and classroom management (dependent variable)	268
3.34	Summary of ANOVA for regression analysis	269
3.35	Coefficients summary for regression analysis	269
3.36	Regression analysis summary between adversity quotient, alienation, change proneness (independent variables) and “Knowledge of subject-matter etc.” (dependent variable)	270
3.37	Summary of ANOVA for regression analysis	270
3.38	Coefficients summary for regression analysis	271
3.39	Regression analysis summary between adversity quotient, alienation, change proneness (independent variables) and teacher characteristics (dependent variable)	272
3.40	Summary of ANOVA for regression analysis	273
3.41	Coefficients summary for regression analysis	273
3.42	Regression analysis summary of dimension-wise prediction on “Interpersonal relations” (dependent variable)	274
3.43	Summary of ANOVA for regression analysis	274
3.44	Coefficients summary for regression analysis	275
3.45	Regression analysis of dimension-wise prediction on teacher effectiveness (dependent variable)	276
3.46	Summary of ANOVA for regression analysis	277
3.47	Co-efficient summary for regression analysis	277

3.48	Regression analysis of dimension-wise prediction on “Preparation for teaching and planning”	279
3.49	Summary of ANOVA for regression analysis	279
3.50	Co-efficient summary for regression analysis	280
3.51	Regression analysis of dimension-wise prediction on classroom management	281
3.52	Summary of ANOVA for regression analysis	281
3.53	Co-efficient summary for regression analysis	282
3.54	Regression analysis summary of dimension-wise prediction on “Knowledge of subject-matter etc.”	284
3.55	Summary of ANOVA for regression analysis	284
3.56	Co-efficient summary for regression analysis	285
3.57	Regression analysis of dimension-wise prediction on teacher characteristics (dependent variable)	286
3.58	Summary of ANOVA for regression analysis	286
3.59	Co-efficient summary for regression analysis	287
3.60	Regression analysis of dimension-wise prediction on interpersonal relations (dependent variable)	288
3.61	Summary of ANOVA for regression analysis	288
3.62	Co-efficient summary for regression analysis	289

LIST OF FIGURES

FIGURE NO.	DESCRIPTION	PAGE NO.
2.1	Total sample distribution from districts of each region of Punjab.	88
2.2	Confirmatory Factor Analysis Model of Adversity Quotient Scale	100
2.3	Alienation Scale's Confirmatory Factor Analysis Model	113
2.4	(2 x 2 x 3) factorial ANOVA Research Design	129
2.5	Research design for regression analysis to study the role of Adversity Quotient, Alienation, Change Proneness on Teacher Effectiveness of teachers	130
3.1	Graphical representation of levels of Teacher Effectiveness among teachers	137
3.2	Graphical representation of levels of "Preparation for teaching and planning" among teachers	139
3.3	Graphical representation of levels of "Classroom management" among teachers	140
3.4	Representation of levels of "Knowledge of subject-matter etc." among teachers Graphically	141
3.5	Graphical representation of levels of teacher characteristics among teachers	142
3.6	Graphical representation of levels of interpersonal relations among teachers	143
3.7	Graphical representation of levels of Adversity Quotient among teachers	146
3.8	Graphical representation of levels of Control among teachers	148
3.9	Graphical representation of levels of Ownership and Endurance among teachers	149
3.10	Graphical representation of levels of Reach among teachers	150
3.11	Graphical representation of levels of Alienation among teachers	153

3.12	Graphical representation of levels of Work Alienation among teachers	154
3.13	Graphical representation of levels of Social Isolation among teachers	155
3.14	Graphical representation of levels of Cultural Estrangement among teachers	156
3.15	Graphical representation of levels of Change Proneness among teachers	159
3.16	Comparative analysis of “Preparation for teaching and planning” with respect to Type of School presented graphically	166
3.17	Graphical representation of comparative analysis of Teacher characteristics” with respect to Type of School	166
3.17.1	Graphical representation of comparative analysis of Teacher characteristics” with respect to Type of School	167
3.18	Graphical representation of comparative analysis of Teacher Effectiveness with respect to “Type of School”	168
3.19	Comparative analysis of “Knowledge of subject-matter etc.” With respect to Gender presented graphically	169
3.20	Graphical representation of comparative analysis of Interpersonal Skills with respect to Gender	170
3.21	Graphical representation of comparative analysis of Teacher Effectiveness with respect to Gender	170
3.22	Comparative analysis of Teacher Effectiveness with respect to Experience presented graphically	173
3.23	Graphical representation of comparative analysis of preparation for teaching and planning with respect to Experience	174
3.24	Graphical representation of comparative analysis of classroom management with respect to Experience	175
3.25	Graphical representation of comparative analysis of	176

	interpersonal relations with respect to Experience	
3.26	Graphical representation of comparative analysis of “Teacher Effectiveness” with respect to Type of School* Gender	179
3.27	Comparative analysis of “knowledge of subject-matter etc.” With respect to Type of School* Gender presented graphically	180
3.28	Graphical representation of comparative analysis of “Teacher characteristics” with respect to Type of School* Gender	181
3.29	Comparative analysis of Adversity Quotient with respect to Type of School presented graphically	191
3.30	Graphical representation of comparative analysis of Control with respect to Type of School	192
3.31	Comparative analysis of Ownership and Endurance with respect to Type of School by graphical representation	192
3.32	Comparative analysis of Reach with respect to Gender by graphical representation	193
3.33	Comparative analysis of Adversity Quotient with respect to Gender by graphical representation	194
3.34	Graphical representation of comparative analysis of Adversity Quotient with respect to Experience	196
3.35	Comparative analysis of Control with respect to Experience by graphical representation	197
3.36	Comparative analysis of Ownership and Endurance with respect to Experience by graphical representation	198
3.37	Graphical representation of comparative analysis of Alienation with respect to Type of School	206
3.38	Graphical representation of comparative analysis of Work Alienation with respect to Type of School	207
3.39	Graphical representation of comparative analysis of Social	207

	Isolation with respect to Type of School	
3.40	Graphical representation of comparative analysis of Cultural Estrangement with respect to Type of School	208
3.41	Graphical representation of comparative analysis of Work Alienation with respect to Gender	209
3.42	Comparative analysis of Alienation with respect to Experience by graphical representation	211
3.43	Graphical representation of comparative analysis of Work Alienation with respect to Experience	212
3.44	Graphical representation of comparative analysis of Alienation with respect to Type of School* Experience	218
3.45	Graphical representation of comparative analysis of Work Alienation with respect to Type of School* Experience	220
3.46	Comparative analysis of cultural estrangement with respect to Type of School* Experience by graphical representation	222
3.47	Comparative analysis of Cultural Estrangement with respect to Type of School* Gender* Experience by Graphical representation	232
3.48	Comparative analysis of Change Proneness with respect to Type of School by graphical representation	239
3.49	Graphical representation of comparative analysis of Change Proneness with respect to Gender	240
3.50	Graphical representation of comparative analysis of Change Proneness with respect to Experience	241
3.51	Graphical representation of comparative analysis of Change Proneness with respect to Type of School* Experience	245
3.52	Graphical representation of comparative analysis of Change Proneness with respect to Gender* Experience	248
4.1	Diagrammatic Representation of Comparative Analysis of Teacher Effectiveness w.r.t. Type of School	305
4.2	Diagrammatic Representation of Comparative Analysis of	305

	Teacher Effectiveness w.r.t. Gender	
4.3	Diagrammatic Representation of Comparative Analysis of Teacher Effectiveness w.r.t. Experience	306
4.4	Diagrammatic Representation of Comparative Analysis of Teacher Effectiveness w.r.t. Type of School*Gender	307
4.5	Diagrammatic Representation of Comparative Analysis of Adversity Quotient w.r.t. Type of School	308
4.6	Diagrammatic Representation of Comparative Analysis of Adversity Quotient w.r.t. Gender	309
4.7	Diagrammatic Representation of Comparative Analysis of Adversity Quotient w.r.t. Experience	309
4.8	Diagrammatic Representation of Comparative Analysis of Alienation w.r.t. Type of School	310
4.9	Diagrammatic Representation of Comparative Analysis of Alienation w.r.t. Gender	311
4.10	Diagrammatic Representation of Comparative Analysis of Alienation w.r.t. Experience	312
4.11	Diagrammatic Representation of Comparative Analysis of Alienation w.r.t. Type of School*Experience	313
4.12	Diagrammatic Representation of Comparative Analysis of Alienation w.r.t. Type of School*Gender*Experience	313
4.13	Diagrammatic Representation of Comparative Analysis of Change Proneness w.r.t. Type of School, Gender and Experience	314
4.14	Diagrammatic Representation of Comparative Analysis of Change Proneness w.r.t. Type of School*Gender, Type of School*Experience, Gender*Experience and Type of School*Gender*Experience	315
4.15	Diagrammatic Representation of Correlational Analysis of Teacher Effectiveness with Adversity quotient, Alienation, Change Proneness	315

4.16	Diagrammatic Representation of Regression Equation of Role of Adversity quotient, Alienation and Change Proneness on Teacher Effectiveness	317
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DESCRIPTION OF ACRONYMS

ACRONYM	DESCRIPTION
TE	Teacher Effectiveness
PTP	Preparation for teaching and planning
CM	Classroom management
KSM	Knowledge of subject-matter etc.
TC	Teacher characteristics
IR	Interpersonal relations
AQ	Adversity Quotient
Ctrl	Control
OE	Ownership and Endurance
An	Alienation
SI	Social Isolation
WA	Work Alienation
CE	Cultural Estrangement
CP	Change Proneness
TOS	Type of School
Pvt	Private
Govt	Government
Exp	Experience
Avg	Average
N	Number of individuals
CVR	Content Validity Rate
KMO	Kaiser-Meyer-Olkin Measure of Sampling Adequacy
EFA	Exploratory Factor Analysis
CFA	Confirmatory Factor Analysis
RMSEA	Root Mean Square Error of Approximation
IFI	Incremental Fit Index
GFI	Goodness of Fit Index
CFI	Comparative Fit Index

NFI	Normed Fit Index
TFI	Relative Fit Index
TLI	Tucker- Lewis Index
AVE	Average Variance Extracted
CR	Composite Reliability
r	Correlation Coefficient
ANOVA	Analysis of Variance
K-S Test	Kolmogorov-Smirnov Test
%age	Percentage
%	Percentage
SD	Standard Deviation
SS	Sum of Squares
Df	Degree of Freedom
MS	Mean Square
PSFT	Private School Female Teachers
PSMT	Private School Male Teachers
GSMT	Government School Male Teachers
GSFT	Government School Female Teachers
PTLE	Private School Teachers Having Low Experience
PTAE	Private School Teachers Having Average Experience
PTHE	Private School Teachers Having High Experience
GTLE	Government School Teachers Having Low Experience
GTAE	Government School Teachers Having Average Experience
GTHE	Government School Teachers Having High Experience
PFTLE	Private School Female Teacher Having Low Experience
PFTAETAE	Private School Female Teacher Having Average Experience
PFTHE	Private School Female Teacher Having High Experience
PMTLE	Private School Male Teacher Having Low Experience
PMTAETAE	Private School Male Teacher Having Average Experience
PMTHE	Private School Male Teacher Having High Experience
GFTLE	Government School Female Teacher Having Low Experience

GFTAE	Government School Female Teacher Having Average Experience
GFTHE	Government School Female Teacher Having High Experience
GMTLE	Government School Male Teacher Having Low Experience
GMTAE	Government School Male Teacher Having Average Experience
GMTHE	Government School Male Teacher Having High Experience
FTLE	Female Teachers Having Low Experience
FTAE	Female Teachers Having Average Experience
FTHE	Female Teachers Having High Experience
MTLE	Male Teachers Having Low Experience
MTAE	Male Teachers Having Average Experience
MTHE	Male Teachers Having High Experience
IV	Independent Variable
DV	Dependent Variable
R	Coefficient of Correlation
R²	Coefficient of Determination
S.E.E.	Standard Error of the Estimate
VIF	Variance Inflation Factor
C	Control
R	Reach
G	Gender
E	Experience

LIST OF APPENDICES

DESCRIPTION	PAGE NO.
Appendix A: Teacher Effectiveness Scale	i-vii
Appendix B: Adversity Quotient Scale	viii-x
Appendix C: Alienation Scale	xi-xiii
Appendix D: Change Proneness Inventory	xiv-xvi

CHAPTER I

BACKGROUND OF THE STUDY

1.1 INTRODUCTION:

The success of an individual is dependent on his or her mental setup and abilities. Also, at the very same time, it is found that more than the individual's ability, the thing that matters the most is the individual's psychological disposition. In other words, it can be said that an individual's success is also dependent on the factors of non-cognition rather than only the cognitive factors. One can also observe around that, many toppers with top scores at schools, colleges or universities have proven to face failures later in their lives be it personally or professionally and on the contrary, average performers became quite successful. Therefore, the individual's overall personality, their attitude and perception of self, world and humanity is more essential for being successful in life rather than just being limited towards academic success. The assessment and evaluation of oneself by an individual in the right direction is the basis of his or her success as well as failure.

This is also quite true in the case of the people in the noble profession known as 'teaching'. Some people are born as gifted teachers. Rather than just having the qualifications for being a teacher for his or her knowledge base, a good teacher also possesses other qualities such as the art of good communication skills, being a psychologist, a philosopher, an empathizer, a facilitator, a guide etc. In other words, it can be said, the teachers' non-cognitive areas are very essential as well rather than just the cognitive ones. One can clearly view the traces of the same in the past history of teaching.

Since the very beginning of the second-half of the twentieth century, the countries who were at the developing stage, made greater strides towards their goal of achieving universal elementary education. In the mid-eighties of the twentieth century in wide majority, about 3/4th of elementary school age children attended schools in these developing countries. But only a small proportion of strength of these elementary school children completed their elementary education. Rate of dropping out was at about more than fifty percent before completing elementary education was common. In these countries, the main challenge faced by the schools was how the quality of the education can be improved for these children. From 1964 to 1966, the Education Commission

indicated that, for contribution towards national development and for influencing the quality of education, the most significant and essential factors/characteristics of teachers are their character, competence and quality. Kothari Commission stated that, the nation's destiny is shaped inside the classrooms. Therefore, the teachers behold the responsibility of shaping the destiny of our future generations and our nation. Various education reports and commissions have had the opinion that that a nation's quality is dependent on the citizens' quality. Furthermore, the citizens' quality depends on the quality of a single utmost essential factor apart from the other influencing factors which is, 'the quality of the nation's teachers'.

It has been observed that apart from the external factors and conditions at the educational institutions, the academic transaction between the pupils and teachers becomes effective when it is added with the psychological dispositions playing positive role on the effectiveness of the teachers. Now teachers are suffering with the so called 'busy syndrome'. For teachers, it is becoming difficult to balance between work and personal life. The teacher's stress, alienation, rigidity and the constant work and life pressures is making them quite irritable. The diversity and expectations among the teachers-teachers as well as teachers-pupils is presenting many challenges demanding adaptiveness and flexibility in their communications and teaching-learning transactions. The responsible ones behind this are the ones having behaviors such as tendency to blame others, negative role-models, exploiting the sub-ordinate staff, being rude, declining incivility, future uncertainty, escapism, pessimism etc. There is a rise in demand for doing more with limited resources, the need to be more persuasive in nature, being quiet and calm. So, it is imperatively important to develop abilities of emotional-sensitivity, emotional-learning, emotional-processing and emotional-memory thereby forming intelligence at emotional level at the very core in teachers as well as pupils (Hein, 2005). This therefore reveals the nascent need for being resilient, non-alienated and acceptable for innovativeness in teaching-learning process.

Therefore, a teacher is a decision-maker and an educational leader indirectly influencing and directly affecting the pupils. The teacher's responsibility is to inculcate values; to inspire and guide his pupils; to enrich his pupils; to teach pupils effectively inside and outside the classrooms in consonance with development of educational technology and educational innovations. Furthermore, when required, the teachers have to discharge several duties of school administration such as arranging school functions,

framing of timetable, conducting the extra-curricular activities, maintaining records of the school office, conducting the examinations and many more administrative-related duties. The effective teachers can be understood as to be the ones helping in the understanding of proper habits of work, developing basic skills, value-judgment, desirable attitudes and sufficient personal adjustment of the pupils (Ryans, 1960). A teacher's role is to facilitate character moulding of pupils and helping in intellect development, mental, physical and emotional growth of pupils.

It is widely accepted that the teachers are an essential and profound vehicle driving to improve school education's quality. The education system's strengthening and revitalization is dependent on its teachers. The ones who matter the most are the teachers (Goldhaber & Anthony, 2007). For the nation's educational standards' upliftment, a teacher plays a crucial and essential role. Therefore, the present investigation has been done to study the role of teachers' adversity quotient, alienation and change proneness on their teacher effectiveness. Today, the nation demands a teacher who is more effective inside as well as outside the classroom; who is very optimistic with high adversity quotient and non-alienated; be prone to change for innovativeness in teaching-learning experience for influencing the pupils thereby enabling them to become better citizens, contributing personalities and achieve the best in consonance with the modernization in this twenty-first century.

1.2 TEACHER EFFECTIVENESS:

An effective teacher has good qualifications and several skills with the best skill-set. These skills include using effective pedagogical teaching, having special-needs students' knowledge, being a reader with good verbal ability, content-specific knowledge of subjects he/she teaches and so on. Personal traits of a teacher such as being positive, having a caring attitude, respecting the students, zest for teaching, reflective teaching and having strong dedication contributes towards teacher effectiveness in the classroom. Also, another important skill is "classroom management" and organization skills. Planning for Instructions, allocation of time for the academics, making the students engaged in teaching-learning process, have strategies for questioning, sequencing instruction correctly, learning-monitoring, usage of relevant and appropriate instructional strategies and being able to differentiate learning for all the students individually are all important characteristics of an effective teacher.

Effectiveness ability in teachers produces desired fruitful results. Whenever an aspect is deemed effective then, intended or desired outcomes are therefore effective and useful meaning that it is the degree and extent to which there is an achievement of objectives and solution of targeted problems. The determination of effectiveness is done without cost reference. Effectiveness means doing the right things in layman terms. Teacher effectiveness term refers or means the teachers' measurement of success to carry out institutional as well as the other duties demanded and specified through/by the nature of their position. The teacher effectiveness is the efficacy in the instructional strategies, "classroom management", feedback, student management, evaluation, "interpersonal relations", preparation for teaching, planning for teaching, knowledge of subject matter etc. Teacher effectiveness comprises of two words which are familiar i.e. "teacher" and "effectiveness". A teacher is someone who teaches to impart skills and knowledge to the pupils. When one has the capability of being successful in producing intended results, it is deemed as their effectiveness (Collin's English Dictionary).

According to Krishna and Nightingale (1994), the qualities possessed by the effective teachers are:

- An effective teacher teaches by adopting various kinds of teaching methods and employs different types of A-V aids.
- An effective teacher has high moral prestige.
- An effective teacher has in-depth intellect.
- An effective teacher also has a good sense of humour.
- An effective teacher has ease and confidence to teach.
- An effective teacher has an all-round developed personality.
- An effective teacher maintains a good relationship with the learners.
- An effective teacher manages the classroom well.
- An effective teacher motivates and stimulates learners for independent thinking.

Also, according to findings of Kulsum (2000, 2011), teacher effectiveness is the teachers' attainment of the needed competence in their roles and functions in the areas of preparation for teaching and planning, classroom management, knowledge of the subject-matter; its delivery and presentation including blackboard summary, teacher characteristics and interpersonal relations. Therefore, the main teacher effectiveness factors are:

- The planning and preparation for teaching;

- Effective classroom management;
- The knowledge of subject matter, its presentation and delivery which includes the blackboard summary;
- Teacher characters' personality make-up and
- Their inter-personal relations with others like the learners, with parents, other teachers, community and society at large.

There have been different proposed models of teacher effectiveness from time to time. The most essential models are discussed as follow:

“McBer (2000) Model of Teacher Effectiveness”

According to the McBer (2000) teacher effectiveness model, the effective teachers are present in all types of schools having diversity in their backgrounds. The following is the sequence of the aspects which are interrelated leading to the progress of students.

- *The teaching skills:*

The teaching skills are the teaching specific skills and micro behaviour which can be identified as well as learned.

- *The climate of the classroom:*

The climate of the classroom is the measurement of the output of the learners' collective perceptions about the teacher's working in the classroom.

- *Professional Characteristics:*

These characteristics are the underlying behavioural patterns and dispositions that are driving the teachers about what to do. These are fundamental commitments, attitudes and values.

“Clark and Walsh's Model of Effective Teacher”

Clark and Walsh (2002) model of effective teacher emphasized areas of effective teacher's teaching which receives a lot of attention in evaluation and education of teachers. These are mainly knowledge of content, knowledge of pedagogy and more recently, knowledge of content of pedagogy and also personal knowledge of teacher with knowledge of content. This model of effective teachers suggests that it's not only the teachers' knowledge in these domains but also 'how' and 'in what way' this knowledge

interacts and overlaps teacher's environment i.e. emotional, physical, social and intellectual.

- *Knowledge of Discipline:*

The knowledge of the discipline in a teacher is the precursor of the ability and capability to teach effectively a particular or specific discipline.

- *Knowledge of Pedagogy:*

Pedagogy is the science and art of teaching. Knowledge of pedagogy entails "classroom management" knowledge, classroom activities organization, techniques for motivating the students, having personal knowledge of a particular or specific student and the student's family and also the skills of social interactions.

- *Contextual knowledge:*

Contextual knowledge entails classroom knowledge, school knowledge, cultural knowledge, community knowledge, educational system knowledge and student knowledge.

- *Teacher's Personal Knowledge:*

Teacher's personal knowledge includes behavioural moral codes like integrity, honesty and also, the teacher's personal self-belief and philosophy.

Early Studies on Factors Affecting Teacher Effectiveness

The following are the factors affecting the effectiveness of teachers according to early researches by different researchers:

- *Teacher Effectiveness and Academic Achievement:*

The academic achievement provides evidence for the individual's scholastic performance in outcomes of learning and curricular subject. According to Collinson (1996), knowledge of the subject matter has a positive correlation with teacher effectiveness. An effective teacher needs to have an in-depth knowledge of their subject.

- *Teacher effectiveness and Intelligence:*

For the adjustment to learn from previous experience and environment, intelligence plays a helpful role. Intelligence is the vitally important factor for getting success in work and school by an individual (Linda, 1990). Thinking critically and

problem-solving are the abilities included in intelligence. Teaching success and intelligence have a positively significant relationship. The high level of intelligent teachers scored off being more competent as well as effective in their teaching-learning processes (Deva, 1966).

- *Teacher Effectiveness and Teacher Education:*

The intention of teacher education is for the preparation of effective teachers. During this time, the individual is transformed into a competent and committed professional of teaching who is well equipped with all necessary and important skillset and has readiness for professionalism for doing his/her duties to take place successfully as well as effectively. Before entering into the teaching career by the teacher, it is essential that the teacher is familiar with the understanding of a student's psychology and teaching responsibility at school. Also, there must be an understanding of the basics of foundations of sociology, psychology, physiology etc. of education. The Kothari commission (1966) emphasized on the sound teacher education system need for preparing effective and competent teachers.

- *Teacher Effectiveness and Socioeconomic Status:*

The acceptance of the people is determined by the accepted socio-economic norms affecting them. The position of a person in society is determined by his/her social status. This status is determined by the job, education qualification, standard of living, social prestige, salary etc. The teacher's socio-economic status influences his/her teacher effectiveness (Deva, 1966; Linda, 1990).

- *Teacher Effectiveness and Personality Factors:*

The teacher effectiveness according to various researchers is found significantly related to the personality factors such as self-concept, social adjustment, emotional adjustment, confidence and relationship of the teacher-student. Some of these characteristics and factors are common to all the professionals but few of them are specifically needed for successful teaching (Nelson, 1998).

- *Teacher Effectiveness and Adjustment:*

Everyone tries to sustain and adjust according to the situation they are facing or they are in. If the teachers can adjust well in home-related and work-related departmental circumstances then, the coping mechanism also becomes easy for them from the same. So, they get along easily with their colleagues and students (Wangoo, 1984).

- *Teacher Effectiveness and Interest:*

The overt behaviour of a teacher is moulded by their interest in their teaching occupation. The interest in the student's achievement, student's welfare and entire school's performance are shown in the effective teachers. When teachers have no interest in their occupation then they would not do justice to their students, to the subjects that they teach and to the organization where they work in. For determining the teacher effectiveness, all these characteristics and factors must be taken into account for consideration (Birney, 1990).

- *Teacher Effectiveness and Teacher-student Relationship:*

The teachers will perform their duties with satisfaction and interest when they have a good teacher-student relationship. The students will approach the teachers freely without hesitation when teachers are friendly towards them. Therefore, this puts an influence on teacher effectiveness. The students' behavioural problems can be tackled with the help of teachers when there is a sound healthy relationship between the teacher-student. Therefore, a good teacher-student relationship is an important factor and characteristic of teacher effectiveness (Taylor et al., 1997).

- *Teacher Effectiveness and Job Satisfaction:*

Job satisfaction is the satisfaction at the job of the employees. The reason for the successful relationship of teachers with colleagues, school administrators and students is their satisfaction at the job. Job satisfaction acts as an essential predictor of teacher effectiveness (Novack, 1999).

- *Teacher Effectiveness and Teaching Strategies:*

To teach effectively, the teaching methodology must be changed and altered in accordance with the developments happening in modern society. Variety of strategies suitable for the specific objective of teaching-learning and its circumstances is adopted by

an effective teacher. For improvising the teacher effectiveness in teaching to a large extent, the teachers successfully introduce novel techniques as well as new strategies for implementation in the teaching-learning process. Adopting a blend of a variety of activities concurrently or sequentially for attaining required objectives and goals is done by effective teachers. (Brown & Melntyre, 1993).

1.3 REVIEW OF RELATED LITERATURE OF TEACHER EFFECTIVENESS:

Apart from factors reported by various early researchers, teacher effectiveness is influenced by a variety of variables with main or joint effect with variables like gender, locale, age, teaching experience, type of school, school status etc. The influence of these areas and factors has been studied and reported by various other researchers further.

Skill possession and knowledge possession are part of teacher competence. Using in the classroom these skills and knowledge, have been referred to as teacher performance. Therefore, to understand and investigate teacher effectiveness, one is to link teacher performance and teacher competence along with teacher goals accomplishment which is, therefore, teacher effectiveness (Medley, 1982).

Comadena (1991) examined the relationship between teachers' use of power and teacher effectiveness in samples of adult learners and traditional undergraduate students. The primary goal was to provide educators with practical information that may assist them in adapting their classroom communication styles to different student audiences. Seventy one traditional undergraduate students and one hundred and five adult learners enrolled in a variety of courses offered through the college of continuing education at a large Midwestern university, completed questionnaires designed to measure teacher effectiveness and use of power in the classroom. Findings showed that in this sample of adult learners, teacher effectiveness ratings were significantly and negatively related to teachers' use of coercive power and positively related to teachers' use of expert power. In the sample of traditional undergraduate students, teacher effectiveness ratings were significantly correlated with teachers' use of expert and referent power.

Money (1992) conducted study to determine student and faculty perceptions of teacher effectiveness. Study findings revealed that (considering input from all respondents), knowledge of subject matter was ranked first in importance, although students in both nursing and technology ranked this factor higher than faculty; effective communication was ranked second, although nursing students ranked the importance of

this factor lower than faculty in both groups; the factor ranked third by respondents was well organized material, with nursing students ranking this factor higher than faculty in either group; ability to motivate and ability to inspire were tied for fourth place in terms of importance to teacher effectiveness; friendly and open demeanour was ranked sixth by respondents, with technology students rating this factor slightly higher in importance than nursing students; and classroom control was ranked last, with no differences found between any of the groups.

Kennedy (1993) examined the relationship between principal leadership functions and teacher effectiveness. The results illustrated a significant correlation between nine out of ten “Principal Instructional Management Rating Scale” subscales and the eight “Our Class and Its Work” subscales. Therefore, the results of the study indicated a significant correlation between principal leadership functions and teacher effectiveness when measured by these instruments in the fifteen schools of the sample.

Abraham (1994) investigated the relationship among levels of job satisfaction, teacher effectiveness and length of service tenure among forty five college lecturer teachers. The study was carried out in two phases. The data analysis indicated that job satisfaction was independent of length of service and related solely to an individual’s attitude towards his or her job. The teachers with high and medium levels of job satisfaction were more effective teachers than those with low job satisfaction.

Collins (1995) sought to establish whether perceptions of teacher effectiveness were influenced by individual personality. Teacher effectiveness questionnaire to establish teachers’ views was designed through research and consultation with other teachers, piloted initially with a preliminary group of ten teachers, then redesigned in the light of these responses. In the study, significant differences in views of effective teaching were found by age, gender and personality types. Sensing types were found to hold strongly different views on responsiveness and on theory. Teamwork, planning and management were found to be less affected by personality and more by contextual elements. Responsiveness was found to differ according to age.

Cheng (1996) proposed a new conceptual framework of total teacher effectiveness whereby the total quality of the teacher competence layer contributes to the total quality of the teacher performance layer and the latter contributes to the total quality of the student learning experience layer and then to the quality of the student learning outcomes

layer. He explained that the framework suggests a holistic approach to improve teacher effectiveness with the emphasis on the improvement of whole layers of teacher competence and performance instead of fragmentary improvement of teaching behaviour. He advised that in order to ensure total layer quality and maximize teacher effectiveness, a congruence development cycle should be established within the teacher layers to ensure congruence and pursue total teacher effectiveness

The finding by Das (1997) regarding teacher effectiveness disclosed that there is no appreciable impact of B.Ed. programme on respondents, the cause of which suggested further investigation about the function of B.Ed. programme as part of study. From the status of the programme it was argued that the training is not vigorous or not qualitative.

Patrick and Smart (1998) aimed to clarify the nature of teacher effectiveness and develop a measure for evaluating teacher effectiveness. The study was conducted in two phases. In phase one, one hundred and forty eight undergraduate students were asked to identify qualities of effective teachers. In phase two, items from existing instruments, intended to measure effective teaching, were combined with items generated from students in phase one to form a meta-inventory. The meta-inventory was administered to two hundred and sixty six undergraduate psychology students. Factor analysis revealed that teacher effectiveness is multi-dimensional in nature, comprising three factors viz. respect for students; ability to challenge students; organisation and presentation skills. In addition, the findings from the study supported several teacher effectiveness dimensions evident in past research.

Munro (1999) examined changes in teacher effectiveness. It was monitored by changes in the display of effective teacher behaviours consistent with a social-constructivist model of learning; changes in perceived ability to facilitate learning in classes; and changes in student performance. The findings support the prediction that involvement in a systematic exploration of the learning process with teachers explicating their knowledge of learning has a direct impact on the display of effective teaching behaviours and on teachers' personal explicit theory of learning.

Hussain (2000) explored the key factors in teacher effectiveness in special educational needs teaching in Malaysia. The five key factors identified by the researcher are teacher characteristics, leadership, classroom management, involvement and support,

resources. Analysis of the Q-sort indicated that respondents perceived teacher characteristics, leadership, classroom management, involvement and support, resources as important in teacher effectiveness, even though the respondents did not agree with some of the statements. Analysis of variance and Multivariate analysis of variance analysis revealed some significant differences especially in the variables gender, age and teaching experience for special children.

Gordon (2001) conducted a qualitative as well as a quantitative study on elementary school teachers on teacher effectiveness domain viz. “classroom management”. The main objective of the study was to, “assess the teacher efficacy of the teachers with regards to classroom management of students at risk”. The study revealed that teacher efficacy is an essential marker of “classroom management” domain of teacher effectiveness.

Ghali (2002) studied and explored the factors influencing teacher effectiveness. The main objectives of this study were to, “find out the difference in teacher effectiveness with respect to their age, gender, experience, teaching experience, marital status, designation, qualification, institution status, type of institute management”. It was revealed that a significant difference exists within the teachers having age up to 35 years and above. It was also found that the gender, experience, teaching experience, marital status, designation, qualification, institution status and the institute management type of the teachers do not significantly influence teacher effectiveness.

The main goal and objective of the study by Bray-Clark and Bates (2003) was to study the teachers’ beliefs about self-efficacy and teacher effectiveness. This study disclosed that in teacher effectiveness, the teacher efficacy is an essential variable which has a consistent relationship with student outcome and teacher behaviour.

Loyd (2004) analysed teacher effectiveness in his study and concluded that perceiver score of urban teachers has no sufficient information for prediction of teacher effectiveness analysed by the scores of academic gains.

Singh and Kaur (2005) conducted a study on, “the relationship between teacher effectiveness and teaching competency”. The main objectives of the study were to, “study the teacher effectiveness and teaching competency of the teachers with respect to gender; to study the role of teaching competency on the teacher effectiveness”. The study found

that with respect to gender in teacher effectiveness, the male teachers are less effective than female teachers; female teachers and male teachers don't significantly differ in their teaching competency. Also, in the teachers, their teaching competency has a significant role in their teacher effectiveness.

The main objective of the study by Bansibihari and Surwade (2006) was to, "explore the emotional maturity's effect on teacher effectiveness". It was revealed that with respect to gender, the male teachers are less stable/mature emotionally than female teachers. The teachers who were more emotionally stable/mature were more effective teachers.

Kaur (2006) studied and analysed teacher effectiveness of the school teachers. The main objectives of the study were, "to do a comparison of teacher effectiveness between female teachers and male teachers; compare teacher effectiveness between private school teachers and government school teachers". The study revealed that female teachers and male teachers are differing significantly in their teaching effectiveness. The male teachers weren't better in classroom management, personality and less effective as compared to the female teachers. The ratings by the school principals revealed that the government school teachers are less cordial in maintaining relationships as compared to private school teachers.

According to Gu and Day (2007), for teacher effectiveness, teachers' resilience is a necessary condition. The teachers are enabled to flourish, sustain and thrive their effectiveness by their resilience.

Mohalik (2007) conducted a study on, "the teacher effectiveness of teachers with regards to in-service teachers' education program". The study's main objective was, "to study the in-service teacher education program's effect on teacher effectiveness". It was revealed by the findings that the in-service teacher training program has a positive and significant effect on teacher effectiveness.

Hanspal and Sahu (2008) study on teacher effectiveness had an objective to study the former with respect to gender, achievement, qualification and experience. This study found that there are significant differences and influence in teacher effectiveness with regards to achievement, experience and gender. The highly experienced and qualified

male teachers were having more teacher effectiveness in comparison to their female teacher counterparts.

Puri (2008) conducted a research study on teacher effectiveness of the teacher educators. The main objective of the study was, “to study teacher effectiveness of the teacher educators with respect to their gender, qualification”. The study revealed that the female teacher educators are less effective teachers in comparison to the male teacher educators. There existed no significant difference between teacher educators having their master degree in education and teacher educators having their doctoral degrees in their teacher effectiveness.

Bhardwaj (2009) studied the teacher effectiveness of secondary school teachers. The main objective of this study was, “to do a comparison between private and government secondary school teachers in their teacher effectiveness”. Results of this study disclosed that the teachers of private secondary schools have better teacher effectiveness and also are more effective in “Classroom management; Inter-personal relations; Knowledge of subject matter etc. and Preparation and planning for teaching” dimensions as compared to the government secondary school teachers.

According to Hunt et al. (2009), teachers who are effective, are consistent in achieving the goals that lay their focus on desirable outcomes for their pupils. Attitudes, teaching performance and knowledge are encompassed in teacher effectiveness.

Malik (2009) studied teacher effectiveness of secondary school teachers. The study’s main objectives were, “to find out the secondary teachers’ effectiveness in teaching with respect to their locality and gender”. The study results concluded that there was no influence of locality and gender on the secondary teachers’ effectiveness in teaching.

Singh (2009) conducted a research study on teacher effectiveness of senior secondary school teachers. The study’s main objectives were, “to do a comparison of the teacher effectiveness with regards to the secondary school teachers’ specialization in the subject; gender and service length”. This study was delimited to senior secondary schools. The study’s results revealed that the service length has no role in secondary school teachers’ teacher effectiveness. The female teachers were better effective teachers in areas of teacher effectiveness namely as a guide; as an advisor, and as a motivator.

Teachers teaching in the science stream were less effective teachers as compared to the arts stream teachers.

The main objectives of the study by Dhillon and Kaur (2010) were, “to assess the teacher effectiveness of teachers with regards to their type of school and gender”. The findings of the study revealed that there exists insignificant differences in female teachers and male teachers in teacher effectiveness. Also, there exists insignificant differences in teacher effectiveness of the teachers with respect to their type of schools.

Kauts and Saroj (2010) conducted a study namely, “study of teacher effectiveness and occupational stress in relation to emotional intelligence among teachers at secondary stage”. This study mainly disclosed that when there is high emotional intelligence, teachers suffer from low occupational stress and they have higher teacher effectiveness. Also, when they fall at low level, they suffer from high occupational stress.

Sodhi (2010) conducted a study which studied the difference between female and male secondary school teachers’ effectiveness. The main objective of the study was, “to assess the teacher effectiveness of teachers with regards to their gender”. This study put forth that female teachers of secondary schools were equally effective teachers in comparison to male teachers of secondary schools.

Bai (2011) studied, teacher effectiveness of college teachers in regards to their professional satisfaction. The study’s main objectives were, “to find out the difference between unsatisfied teachers and satisfied teachers in their teacher effectiveness”. The study’s results revealed that unsatisfied teachers scored lower than the satisfied teachers in their teacher effectiveness. The unsatisfied teachers were therefore less effective teachers than the satisfied teachers.

Katoch (2011) studied the relationship between teacher effectiveness and temperament. The study disclosed that the most effective teachers had higher scores namely on accepting, tolerance and ascendant traits of temperament than the least effective teachers. The other main objective of the study was, “to study teacher effectiveness with respect to gender”. The findings revealed differences in teacher effectiveness of the teachers with regards to gender.

Kaur (2011a) studied secondary school teachers’ teacher effectiveness. This study which was descriptive in nature which revealed that the government secondary school

teachers of Panchkula district, Haryana (India) were more effective teachers than the government secondary school teachers of Mohali district, Punjab (India).

Kaur (2011b) studied secondary school teachers' teacher effectiveness. The study's main objectives were, "to do the comparison of the female secondary school teachers and male secondary school teachers in their teacher effectiveness". The study revealed that male secondary school teachers were equally effective teachers as compared to female secondary school teachers.

Kauts and Hans (2011) in their research study namely, "study of teacher effectiveness and organisational climate in relation to emotional intelligence among teachers at secondary stage" put forth in terms of teacher effectiveness that teacher effectiveness level is gender neutral. More emotional intelligence meant more teacher effectiveness and the scenario is opposite when the conditions are vice-versa.

Kauts and Mittu (2011) performed research study on, "study of teacher effectiveness in relation to locus of control and stress of teacher educators". It was pointed in terms of teacher effectiveness that via various stress levels, significant affect is exerted on teacher effectiveness. By comparative analysis it is argued that teachers suffering from more stress have better teacher effectiveness comparatively to less and moderate stressed teachers. The root reason behind stress in themselves is by "self". In majority, they have their own control.

Padhi and Verma (2011) conducted a study on, "teacher effectiveness of teachers of secondary schools". This study's main objectives were to find out the teacher effectiveness of teachers of secondary schools in respect to their place of habitation and type of school. The study results revealed that urban secondary school teachers were equally effective teachers as compared to rural secondary school teachers. The private secondary school teachers were equally effective as compared to the government secondary school teachers in their teacher effectiveness.

The main objective of the study by Singh and Pal (2011) was to analyse teacher effectiveness by comparing it within the upper-primary school teachers and primary school teachers. The study results put forth that there were insignificant differences between upper-primary and primary school teachers' effectiveness in teaching.

Aggarwal (2012) conducted on teacher effectiveness of teachers of higher secondary schools. One of the study's main objective was, "to measure the teacher effectiveness of non-aided higher secondary school teachers and government higher secondary teachers". The study revealed the government school teachers had more "Teacher effectiveness" than the non-aided and aided school teachers. The government school teachers had better "Academic knowledge and Professional knowledge" and also, they had a better relationship with their principals, students and students' parents.

Goel (2012) examined teacher effectiveness of school teachers. One of the study's main objective was, "to find out the teacher effectiveness of teachers with respect to their gender". The results revealed that most of the school teachers were effective in their teaching. The male teachers were revealed to be less effective teachers than the female teachers.

Sharma and Siddiqui (2012) studied secondary school teachers' effectiveness in teaching. One of the study's main objective was, "to find out the difference between female and male secondary school teachers' effectiveness in teaching and also assess it with respect to academic background". The study revealed that there was no significant difference between female and male secondary school teachers' effectiveness in teaching. The teachers having high academic background had higher scores in the assessment scale.

Singh (2012) studied the teacher effectiveness of the school teachers. The main objective of the study was, "to find out the difference in the teacher effectiveness of the school teachers with respect to type of school, gender and locality". It was revealed that there is were insignificant differences between private and government school teachers in their teacher effectiveness; there were insignificant differences between female and male school teachers in their teacher effectiveness and there is were insignificant differences between rural and urban school teachers in teacher effectiveness.

Sreenivasulu and Reddy (2012) studied high school teachers' teacher effectiveness. The main objective of the study aimed at, "an investigation studying the impact on teacher effectiveness of high school teachers by stress and mental health". The results of the study revealed that for high school teachers, there exists insignificant impact of stress and mental health on the teacher effectiveness. The study also mentioned that stress can have some level of influence on teacher effectiveness of high school teachers but not up to the maximum level.

Darling-Hammond et al. (2013) developed and assessed study on, “the teacher effectiveness of the teachers at the beginning”. The research study pointed out by disclosing that performance assessment of a teacher is a significant predictor of his/her teaching effectiveness. Also, many other sub-scales like reflection and assessment in mathematics; assessment, planning and development of academic language in the English language predicted effectiveness. The effectiveness in a teacher includes teachers’ feelings which were strongest whenever teachers had a feeling of getting well supported by their program in completing assessment process and learning to teach.

Gupta (2013) conducted a study on teacher effectiveness of school teachers. One of the main objective of the study was, “to study teacher effectiveness with respect to type of school and gender”. The results revealed that insignificant differences existed in teacher effectiveness with respect to the type of school and gender. Also, the investigator mentioned that the female teachers were slightly less effective than the male teachers. The government school teachers were slightly less effective than private school teachers.

Kaur (2013) studied the teacher effectiveness of the female teachers. One of the study’s main objective was, “to find out the female teachers’ teacher effectiveness with respect to type of school”. The study results revealed that the government school female teachers were more effective than private school female teachers in their teacher effectiveness.

Varughese (2013) studied the effectiveness of primary school teachers. One of the main objective of the study was to, “find out the teacher effectiveness of primary school teachers with respect to gender and type of school”. The study results revealed that there existed a significant difference between female primary school teachers and male primary school teachers in their teacher effectiveness. Male teachers were found to less effective teachers than female teachers. There existed no significant difference between private primary school teachers and government primary school teachers in their teacher effectiveness.

Brindhamani and Manichander (2014) studied primary school teachers’ effectiveness. One of the study’s main objective was, “to find out the significant difference between the effectiveness level of female and male teachers and also, the significant difference between government school teachers and private school teachers”. The study findings showed that female teachers and male teachers do not differ

significantly from each other in their effectiveness level. The government school teachers were less effective teachers than private school teachers.

Harris et al. (2014) conducted a study on the teacher effectiveness of teachers with the main objective of the study as, “to evaluate as to how methods of teacher evaluation matter for accountability of teacher effectiveness”. The findings of the study suggested that the value-added measures for teachers and informal evaluations by the principal have a positive relationship. The study also suggested that few of the principals give low ratings to high value-added teachers since they work in isolation, put in very little effort to make little contribution to the school community.

Kauts and Chechi (2014) studied, “teacher effectiveness in relation to type of institution, emotional intelligence and teaching experience”. With regards to “type of institution”, the differences weren’t significant. The more emotionally intelligent teachers had better teacher effectiveness and vice-versa. With regards to high versus low teaching experience, the former had better teacher effectiveness.

Toor (2014) researched on teacher effectiveness of secondary school teachers. One of the main objectives of the study was, “to find out the difference in the school teachers in their effectiveness with respect to their gender; to find out the difference in the school teachers in their effectiveness with respect to their type of school”. The study found that there existed an insignificant difference between female teachers and male teachers in their teaching effectiveness. Also, the results pointed out that private school teachers were more effective government school teachers in both cases of female teachers and male teachers.

Garrett and Steinberg (2015) studied teacher effectiveness by using scores of classroom observation and evidence from the teacher to student randomization. As measured by the teaching framework (FTT), the teacher performance has a correlation with the student achievement and non-compliance (randomization). Also, it was disclosed that the year-to-year (modest) correlation of teaching framework (FTT) scores of teaching constrains the ability to causally identify the teachers who are effective.

Goldhaber et al. (2015) revealed that the teachers teaching in lower teacher turnover schools have less probability of leaving the teaching workforce of the state. It was also indicated that the teachers are more effective when the demographics of students

of the current school have similarity to the demographics of students in which they did their student teaching

The main objective of the study by Joshi (2015) on teacher effectiveness of school teachers was, “to compare teacher effectiveness of female teachers and male teachers”. The study results revealed that there exists significant difference between the teachers with respect to gender. This further put forth that the female teachers were better effective teachers than the male teachers when it comes to their teacher effectiveness.

Anand (2016) studied teacher effectiveness with regards to various demographic variables. The main objectives of the study comprised, “studying the teacher effectiveness with respect to gender, qualification, type of school”. The study results revealed that there existed an insignificant difference between female teachers and male teachers in their teacher effectiveness. It was found in this study that teacher effectiveness is not dependent on the qualification, type of school, gender.

Kauts and Kaur (2016) studied “teacher effectiveness in relation to emotional intelligence and maturity of institutions among B. Ed. Students”. In terms of teacher effectiveness level (in education colleges with five to ten and fifteen to twenty years maturity respectively), respondents portrayed varying levels, teacher effectiveness is contributed by higher emotional intelligence. In education colleges with five to ten and fifteen to twenty years maturity respectively, less emotionally intelligent respondents were better effective teachers in former comparatively to the latter. In respondents with higher and moderate emotional intelligence, education colleges’ years of maturity had no contribution on teacher effectiveness.

Arya (2017) conducted a study on, “teacher effectiveness of school principals with relation to their leadership styles”. The main objective of the study was, “to find out the relationship among principals’ leadership styles and teacher effectiveness”. The findings of the study revealed that the principals’ supportive leadership style significantly impacts the teacher effectiveness and also, the participative leadership style of the principal significantly affects the teacher effectiveness.

Katoch (2017) assessed the teacher effectiveness of secondary school teachers. The main objective of the study was, “to find out the difference in the teacher effectiveness of secondary school teachers in their gender and experience”. The study’s

findings disclosed that there exist insignificant differences in teacher effectiveness of teachers at secondary schools with regards to their gender as well as with regards to their experience. The study also revealed that there exists insignificant interactional effect of gender and experience on teachers of secondary schools' teacher effectiveness.

The main objective of a study by Halder and Roy (2018) was to examine the relationship between teacher effectiveness and teacher adjustment. The study was carried out on teachers of secondary schools in the West Bengal State of India. The study results revealed that there is a significant positive correlation between teacher effectiveness and teacher adjustment of secondary school teachers.

Bhullar (2019) studied the teacher effectiveness of secondary school teachers with respect to gender, locality and personality types. The main objectives of the study were, "to find out the difference in the teacher effectiveness of male and female secondary school teachers; find out the difference in the teacher effectiveness of urban and rural secondary school teachers; find out the difference in the teacher effectiveness of introvert and extrovert secondary school teachers". In the dimension of teacher effectiveness: "Preparation for teaching and planning", the male teachers were not better than the female teachers. Whereas, in the dimension of teacher effectiveness i.e. "Inter-personal relations", the female teachers were not better than the male teachers. The teachers of the urban locality were found to be no better than the teachers of rural locality in the dimensions of teacher effectiveness viz. "Interpersonal relations, Classroom management and Knowledge of the subject matter". Introvert teachers were found to be no better than the extrovert teachers in the dimensions of teacher effectiveness: "Teacher characteristics, Preparation for teaching and planning, Interpersonal relations, Classroom management and Knowledge of the subject matter".

Bardach and Klassen (2020) conducted a review of related literature based study on teacher effectiveness and cognitive abilities of teachers. The main objective of the study was to assess twenty-seven related studies on teacher effectiveness and cognitive abilities of teachers from the year 2000 to 2019. It was indicated that these studies rarely used test of intelligence scores thereby indicating that the association of teacher effectiveness is absent or negative. Proxies of cognitive ability studies had at least a small positive relationship with the teacher effectiveness.

1.4 ADVERSITY QUOTIENT:

The capacity and capability for adjustment with the adversities in life is known as the adversity quotient. An individual having good adversity quotient is able to achieve his or her aims by fighting against all the odds faced by him or her. Adversity quotient has a relationship with many other factors as well like fighting spirit, self-esteem, sincerity, motivation, creativity, optimism, emotional stability, positive attitude and many more factors. Stoltz (1997) revealed that the science of resilience in humans is known as adversity quotient. It tells how well one can withstand adversity and their ability to surmount it. It predicts who will overcome adversity and who will be crushed. It predicts who will exceed expectations of their performance and potential and who will fall short. Also, it predicts who gives up and who prevails (Stoltz, 1997). Adversity quotient takes three forms. First, it is a new conceptual framework for understanding and enhancing all facets of success. Second, it is a measure of how one responds to adversity. Finally, it is a scientifically-grounded set of tools for improving how one responds to adversity (Stoltz, 1997).

Dr. Paul G. Stoltz, who authored the book, “Adversity Quotient: Turning Obstacles into Opportunities” developed a way of assessment of an individual’s adversity quotient which measured the individual’s ability and capability of coping mechanism while facing and dealing adversity. The concept of adversity quotient is largely based on the researches of psychoneuroimmunology; neurophysiology and cognitive psychology. Adversity quotient is a valid tool and a valid measure to ascend a light on new theory of the effectiveness. Adversity quotient is a mechanism which is scientifically anchored to strengthen response patterns towards adversity (Stoltz, 1997)

The accessed and existing capacity of many people starts decreasing when the adversity quotient intensifies. When it needs to expand, it instead contracts. Therefore, it is a paradox. When there is an expansion of the required capacity and capability which is demanded of a person, then their accessed and existing capacities shrinks (Stoltz, 2000). To meet the required demands of today, everyone is facing troubles. For the management of all the complexity, uncertainty and chaos, a person faces each day, it has become an impossible task. Most individuals are suffering from a gap in capacity between what an individual has and what is required of them. Dr. Paul G. Stoltz who minted adversity quotient as a term conducted several studies on the same and observed that expanding a person’s accessed and existing secrets for meeting demands of the required capability and

capacity is to increase the person's adversity quotient. Sustainable optimism depends on high adversity quotient.

Stoltz Theory of Adversity Quotient

The present study is grounded on theory by Stoltz (1997). Adversity quotient is the science of resilience in humans. An individual having high level of adversity quotient has the ability to keep going ahead despite the obstacles or disadvantages faced. He or she exhibits resilient behaviour. But, the person with a low level of adversity quotient tends to easily quit and allows tough times to wear and bring down their performance, spirit and energy (Stoltz, 1997). The factors that makeup adversity quotient are control, reach, ownership and endurance (Stoltz 1997, 2000). How much an individual has control over the adversity is referred to as control. The extent to which a problem affects areas of the person's home life and work life is referred to as reach. When there is a willingness in an individual to assume responsibility and accountability towards adversity being faced and to then take up necessary measures regarding the same and the duration of how long the problem and its effects last is respectively referred as ownership and endurance. (Stoltz 1997, 2000). It is a theory on attribution. It is based on explanatory style, resilience, optimism and locus of control. The following are the main facts emerging from converging the building blocks of psychoneuroimmunology; neurophysiology and cognitive psychology of adversity quotient:

- People respond to adversity in patterns that are hard-wired.
- People at times have a poor judgement towards these hard-wired patterns.
- These hard-wired patterns are measurable.
- These hard-wired patterns may be improved and rewired (Stoltz, 1997).

Every individual's defining moment is when he or she faces obstacles and adversities. At that, a hard-wired design having precision gets activated which has a rippling effect all over the individual's entire being. This is called adversity quotient. Adversity quotient is a behaviour which is regarded as a 'learned behaviour'. The studies by Dr Paul G. Stoltz in 1997 had laid indication towards the manner in which a person responds to the adversities and it is highly influenced by a variety of factors like, "friends, teachers, other significant people and family members" in their lives. The individual, societal and workplace adversity is taken into consideration for adversity quotient. Adversity quotient (AQ) serves as a predictor of thirteen factors that impacts a leader or a

team which is, “performance, longevity, learning, productivity, health, improvement, resilience, change, tenacity, effort, agility, hope and innovation (Stoltz, 2000)”.

Adversity quotient expands new knowledge. Therefore, one must first work towards the strengthening of the human OS (operating system) so that its various software i.e. experiences, skills, talents, knowledge is more effectively optimized and accessed. So, in this manner only, one can we entirely take the anchorage of the human resource as this is the soul of adversity quotient. Emotional Quotient is the measurement of an individual’s capacity to manage his/her emotions. Intelligent Quotient is the measurement of an individual’s knowledge. So, a high emotional Quotient and high intelligent Quotient help in strengthening the chances of being successful. But, for an individual, emotional quotient and intelligent quotient are not the only criteria for their success. Hence comes the adversity quotient which is the measurement of an individual’s ability and capability for overcoming the life hardships and moving ahead. Therefore, only emotional quotient and intelligent quotient may not be the only reasons responsible for success, since adversity quotient is required for striving hard in the tough circumstances.

Dr. Paul G. Stoltz behind the coinage of the term adversity quotient made a formula about how the adversity quotient can be improved which is abbreviated as ‘LEAD’ which expands as, “listen, explore, analyze and do something”. It is further elaborated in the following sequence.

- *‘Listen’*
 - To listen is how an individual gives a response to adversity.
 - It is for measurement of the ability and capability of an individual in making decisions over the adverse scenarios.
- *‘Explore’*
 - To explore is to know about the problem’s root cause and assume the responsibility in the decision-making process.
 - All the decisions will have equal amount of responsibility and accountability.
- *‘Analyze’*
 - To analyze is to think intelligently of the circumstances in their occurrence and then accordingly, take decisions.
- *‘Do something’*
 - To do something is to workout action-plans and do result evaluation.

The sequence of 'LEAD' is adapted from many influential researchers' works in cognitive psychology. Stoltz (1997) has laid stress that this is related to retraining and attribution viz. a therapeutic approach helping the individual in assessing; recognizing and disputing their reactions to the events of life. Stoltz (1997) indicated that unlike the most pieces of training losing impact with passing time, one of the more important revelations from the cognitive psychology studies have been that, "the cognitive disputation skills' effect seems to take on the life of its own which is budding long and expanding after pieces of training".

Adversity Quotient and its Nature

The term resilience is referred to as the capability and ability for giving or coping responses that are successful to the high risks. Resilience is the outcome of both environmental causes and characteristics of individuals. A person views the resilience within himself as the way he gives a response to the external influences or outside influences and events which are namely known as the adversities. The Dictionary of New Webster gives definition of adversity as something being a misfortune. The various other adversity synonyms are challenges, misfortunes, danger, conflicts, stress and hardships. Adversity is referred to a given circumstance in which a teacher or any other person faces hindrance in getting/doing what she/he desired for. Adversity maybe both, a particular condition or a general situation. Functionally, adversity may be defined as a challenge, occupational stress, strain, emotional stress or hardship. The adversity level begins within an individual thereby going beyond the hands of him/her, the workplace and the society (Stoltz, 1997).

Adversity quotient helps in determining whether an individual is able to get destroyed or crippled; he/she would stand true and strong and whether he/she would continue growing while facing adversity. Adversity quotient is also the foundation of success factor determining how and to what extent an individual's performance, abilities and attitudes are manifested in the present world around. Adversity quotient may be strengthened and enriched since it is a learned behaviour.

At its most basic level, adversity quotient is the pattern which is unconscious, measurable and is precise about how an individual responds to the adversity being faced. But adversity quotient is not limited to this only but, it is much beyond than this measure. Adversity quotient contributes towards an important and vital piece of the theory of

human behaviour's grand unification which has been drawn from approximately four decades of scientific research and wisdom. Once one knows and gets a picture about how the adversity quotient works then, the following science application of unravelling certain fundamental mysteries of collective and individual endeavour becomes easier (Stoltz, 2000).

A Conceptual Perspective of Adversity Quotient in Teachers

Adversity quotient i.e. AQ is the ability and capability one has for the adjustment with the life adversities. Nowadays, a teacher is expected to have multiple talents. With the passing time, the relationship between the teacher and the learner has become strange. Adversity quotient affects the success, agility, persistence, resilience, creativity, longevity, risk-taking, productivity, health, stamina and motivation of an organization (Stoltz,1997). Williams (2003) emphasized that the leaders of schools should respond and adjust with the adversity existing from, "personal family to the occurring events outside the boundaries of the community, to the placement of stress on education both locally and nationally and for the increased student achievement and accountability". Villaver (2005) revealed that female teachers' adversity quotient is low moderately. Stolz (1997) pointed out that a low adversity quotient is a learned form of helplessness. The learned helplessness saps persistence, performance motivation, productivity, energy, improvement and learning. This creates the quitters and campers. The 21st century demands changes for the teachers. Change in the environment, curriculum, psychological approach and methodology. Parvathy and Praseeda (2014) suggested that the adversity quotient must be taught to the pre-service teachers since the teachers transfer their abilities to future generations.

1.5 REVIEW OF RELATED LITERATURE OF ADVERSITY QUOTIENT:

The following is the sequence of the various studies conducted on adversity quotient at the workplace.

Occupational Adversity Quotient

Thomas-Sharksnas (2002) conducted a study on, "the relationship between job satisfaction and resilience in mental healthcare workers working in community mental health centres". The study revealed that the mental healthcare workers faced adverse conditions at the community mental health centres like lack of organizational support; little respect at the workplace, very low pay, lack of peer support and lack of supervision.

Therefore, the scores of adversity quotient of mental healthcare workers were very low. The investigator revealed in the study how the mental healthcare workers responded to these adversities and how these may influence their mental health; the probability of them leaving their profession and taking care of patients. The study showed that there existed an insignificant correlation among the adversity quotient and job satisfaction.

Lazaro-Capones and Antonette (2004) studied, “adversity quotient and level of performance of middle managers working in different departments through feedback by self, sub-ordinates, peers and supervisors”. This study revealed that there existed an insignificant correlation between respondents’ adversity quotient and length of service. Insignificant correlation was disclosed among adversity quotient and the age of the respondents. This study also put forth that there is insignificant relationship among the gender and adversity quotient of respondents. The civil status had no significant correlation with adversity quotient.

Johnson (2005) did an investigative study on adversity, performance and optimism. The study revealed that the model of adversity quotient provides a more consistent and complete framework to identify who is helpless and who is empowered. When the sales persons have a higher level of adversity quotient then they have better performance. There existed a relationship which is significant between adversity quotient and performance. Significant differences existed in adversity quotient with respect to service length which indicated that those who had been employees of the company for a longer duration were better in seeing events that are negative as temporarily only. There existed a significant difference between male and female study respondents. Male respondents had better adversity quotient than the female respondents.

Haller (2008) revealed that the adversity and the obstacles are perceived as challenges by the respondents which may then be turned into opportunities. It was revealed that it was important to overcome obstacles and face adversity successfully for the respondents’ growth and progress as leaders. Also, having mentors to inspire, motivate, help and guide the respondents is important. It is essential to be a servant-leader who is humble and serves the people. The study suggested that it is helpful and important to have family ties and religious faith which are strong. The respondents’ ideas and concepts about leadership nature were impacted heavily by their experiences.

Liu (2011) studied the relationship between adversity quotient, the pressure at work, performance at work and personal characteristics. This descriptive study on office workers revealed that their different roles of gender had, a significant difference in “Adversity quotient”. The office workers’ traits of personality had, “Positive impact on Adversity quotient”. Adversity quotient had, “No negative impact on Work stress”. Adversity quotient had, “Positive impact on Work performance”. The trait of personality had, a significant impact on the performance at work via adversity quotient.

Tripathi (2011) conducted a study on, “the use of adversity quotient beating tomorrow’s strong business leaders”. The study assessed adversity quotient as a measurement to measure, “the ability of an individual to prevail in face of the adversity faced by leaders and top management professionals”. The study revealed that the managers’ adversity quotient mean score between the age group of forty to forty-four years was greater than that the adversity quotient mean-scores of the managers older than the age of fifty years. The executives’ experience was significantly related to their adversity quotient. The adversity quotient mean score of males was less than the female respondents. The adversity quotient mean scores of post-graduate employees was less than the graduate employees. The adversity quotient mean scores of single respondents was less than the married respondent. Highest designated executives such as directors and CEOs had the highest adversity quotient scores.

Academic Adversity quotient

The following is the sequence of the various studies highlighting the academic adversity quotient.

Fuente and Lee (1999) conducted a research study on, “the adversity quotient of college graduate students”. The study found that the outgoing batch moderately scored on adversity quotient. They had average scores in all adversity quotient dimensions. The study concluded and revealed that the majority of times, the students had quite a good ability to handle adversity which depended on the duration and degree at which the event of adverse lasted.

D’Souza (2006) conducted a study on, “adversity quotient of students of secondary schools in relation to their school climate and school performance”. The researcher revealed out that the pupils having different adversity quotient levels from

different types of school differ in their school climate perception. It was found that the ICSE and CBSE school students are better in handling adversities than students of SSC schools.

Enriquez (2008) researched on the mentoring programme effects on students' adversity quotient. The respondent students' adversity quotient was measured at the beginning and at the end of the programme of mentoring. The study findings revealed that the adversity quotient of the majority of the student respondents on the pre-test falls between the low range of AQ. Adversity quotient score of the majority of the student respondents improved after the post-test. There was a significant effect of the mentoring program on the adversity quotient of the student respondents.

Almeida (2009) conducted a study to, "develop a programme to enhance the adversity quotient of the students". At the programme end, the observation was that significant differences were existing in the means of post-test of students' adversity quotient. The researcher made an observation that there was a change which was thorough in students' attitude towards adversities faced in life. The pupils began analyzing situations and gradually started thinking to provide solutions for improvement of the situation. If student panics then other students will help in formulating a response which is suitable towards the adversity.

Huijuan (2009) did an investigation on, "college students' adversity quotient and academic performance". The study found that gender did not influence the respondents' adversity quotient. The year and course level had a significant relationship with adversity quotient of student respondents of the study. The respondents' adversity quotient level and academic performance level had a significant relationship with each other.

Kanjanakaroon (2011) did a study on the relationship between the school students' self-empowerment and adversity quotient. The research study's results revealed a positive relationship between the "Adversity quotient and Self-empowerment". The "Adversity quotient and Self-empowerment" were not affected by the students' age, grade, gender and class.

Cornista and Macasaet (2013) found no significant relationship among the students' adversity quotient with respect to their gender and age. The year level affected significantly the students' adversity quotient. There was a significant relationship

between “Adversity quotient and Work habits, Interpersonal strengths, Achievement motivation, and Inner-resources” of students.

Praditsang and Hanafi (2013) studied the, “relationship between the adversity quotient and the behavioural learning of students”. Most of the respondents of the study had high scores in terms of their adversity quotient and on all dimensions apart from the control dimension of adversity quotient. There existed a significant relationship between the “Adversity quotient and Behavioural learning”.

Indriati (2016) studied adversity quotient and self-efficacy effect on achievement motivation. The study revealed that the “Adversity quotient” influences significantly the “Achievement motivation”.

Aryono et al. (2017) investigated a study on, “the relationship between the adversity quotient and the emotional maturity of students”. The results of this study revealed that a significant relationship existed between the adversity quotient with tolerance to stress with regards to the emotional maturity.

Adversity Quotient in the Professionals of Teaching Profession:

The following is the sequence of the various studies highlighting the adversity quotient in the teaching community.

Stoltz (1997) coined the term adversity quotient stating that an individual’s success in work and in life is largely determined by their adversity quotient. It tells how well one can withstand adversity and their ability to surmount it. It predicts who will overcome adversity and who will be crushed. It predicts who will exceed expectations of their performance and potential and who will fall short. Also, it predicts who gives up and who prevails. Adversity quotient takes three forms. First, it is a new conceptual framework for understanding and enhancing all facets of success. Second, it is a measure of how one responds to adversity. Finally, it is a scientifically-grounded set of tools for improving how one responds to adversity.

Dellow (1998) investigated how selected high school teachers identified as resilient to the demands of a complex and changing education environment were, influenced in their response to change by aspects of their personal, organisational and professional lives. One of the significant propositions of the study was that the resilient

teachers anchor their careers in autonomy and moral purpose but in an individualistic way that reflects additional anchors in technical/ functional competence, creativity, and/ or adventure. The second proposition of the study speaks about the dynamics of the psychological contract operant among resilient teachers in the context of their professional work. In the case of resilient teachers, the linearity of the implicit reciprocal relationship between the individual and the organization doesn't appear to fit the dynamic complexity of the changing context of education. Finally, the study reconceptualises model depicting progression of teachers' careers that articulates the proposition that resilient teachers engage in cyclical self-renewal and appear highly self-directed in this regard.

Bondy and McKenzie (1999) described teacher's efforts at building resilience and social reconstructionist teaching. The resilience-building curriculum enabled the students to move beyond the brand of domesticating education to which they had grown accustomed and toward a liberatory education of social critique and social action. In the first year of teaching, the teacher learned about the challenges of social reconstructionist teaching, the role of building resilience in the social reconstructionist classroom and the meaning and importance of teacher resilience.

Stoltz (2000) revealed that adversity quotient takes at least three forms. It is at once a powerful theory, a meaningful measure and a well-honed set of tools for persevering through challenging times. Adversity quotient describes how well one withstands adversity and one's ability to surmount it. It predicts who will overcome adversity and who will be crushed. And it predicts who will exceed expectations and who will fall short.

Bernshausen and Cunningham (2001) studied the role played by the teacher's resilience in teacher retention and teacher preparation. It was indicated that burnout, stress and attrition affect the teacher's resilience. It was pointed out that in-service as well as pre-service teacher preparation should have a spirit of cooperation, collegial environment, supportiveness, belongingness and build a sense of competence for the resilience of teachers and their retention.

Abejo (2002) revealed that the majority of the college employee respondents had moderate "Adversity quotient" level. There existed no significant difference in "Adversity quotient" with respect to gender. The older respondents had higher "Adversity

quotient” level than the younger respondents. There existed significant difference in “Adversity quotient” of the non-teaching staff, teaching staff and administrative staff.

Williams (2003) conducted a study exploring the relationship between responses of principals towards “Adversity quotient and Student achievement”. The findings of the study showed that the students had higher scores in achievement at school where the school principals scored higher in adversity quotient as compared to the students studying in the schools where the principals had a low-level category of adversity quotient. The researcher also revealed that the perceived control of teachers over their environment of work may impact student achievement and teacher-principal relationships. The investigation revealed that the response of the school principal to adversity may impact the student achievement; self- efficacy of teacher and school climate. The teacher’s understanding and knowledge of adversity quotient; the student achievement, self- efficacy of teacher and culture of the school may be influenced positively thereby resulting in having a more successful school.

Roman-Oertwig (2004) found that in overall, the study respondent teachers had a high level of resilience. Also, the level of resilience was high in teachers with respect to teaching experience, experience at present school, age, gender, location and ethnicity. With respect to age, the teachers in the age-group of 55 and above had significantly more resilience in comparison to the teachers in the age-group of 27 to 35 years. Although not statistically significant, the teachers having low and high experience had more resilience than the average experience teachers.

Elaine (2005) revealed in a research study that the demographic profile and “Adversity quotient” gave an indication that most of the respondents falling under the stage of early-adulthood had average “Adversity quotient” levels meanwhile, respondents under the stage of older-adulthood, had a moderately low level of “Adversity quotient”. The study results revealed that both private and public school teachers have an average level of “Adversity quotient”.

Brunetti (2006) conducted a study on high school teachers of the inner city of United States of America with regards to their resilience. It was revealed that these teachers are facing humungous challenges. The study revealed that resilience in teachers helped them in overcoming setbacks and challenges at work for persisting vigorously in their profession. It was recommended that more studies in this regard must be conducted.

Gu and Day (2007) revealed that for the effectiveness of the teachers, teachers' resilience is a necessary and important condition. By being resilient, the teachers are enabled to sustain, flourish and thrive their effectiveness.

Tait (2008) directed that by giving fair professional, social and emotional support, the novice teachers would be able to develop resilient behaviour and response like rebounding, optimism, fighting difficult conditions, reaching their goals, nurturing and seeking supportive relationships, balancing life etc. For the success of a novice teacher, resilience plays an important role in linking with teacher efficacy development and underpinning by emotional competence.

Le (2009) conducted a study on "pre-service teachers' resilience" laying emphasis on interactions and relationships between an individual and his/her student teaching context. It was disclosed that professional experience in pre-service teachers plays a role in the building of resilience in them with a special focus on the model of the learning community of professional experience.

Canivel (2010) put forth that the mean scores of "Adversity quotient" of the principals fall in the average level category. Practice and performance have a response which is positive towards "Adversity quotient". There existed no significant correlation between the "Adversity quotient and Leadership styles" of the respondents. Lastly, the "Adversity quotient and Demographic profiles" had no significant correlation among them.

Low (2010) conducted a study on the levels of resilience in the academic deans, department chairs and administrators of universities. As stated by Stoltz (1997), "Adversity quotient" is the science of resilience. This study by Low (2010) utilized quantitative survey method to determine the levels of resilience of "Administrators; Department chairs and Academic deans within a state university system" to reveal that the academic deans averagely portrayed higher resilience level as compared to the department chairs and subsequently, the administrators who were females fell in the average level category and had more resilience than their male counterparts. Also, it was revealed that the academic administrators when compared to the other industry and professional individuals, portrayed above-average resilience level on mostly every characteristic of resilience. Further, it was revealed that the variables like formal training, experience, gender, the influence of parents, the size of the department or college

supervised, incentive and type of institution influenced in the determination of levels of resilience.

Sachdev (2011) conducted a study on, “the intervention programme effectiveness for developing the adversity quotient of the potential leaders of management and teacher educators”. The study’s purpose was to develop a programme of intervention on “Adversity quotient” and also, to study its effectiveness. This study laid emphasis on ascertaining the relationship between “Adversity quotient” of potential leaders with respect to their “Experience, Gender, Academic faculty, Age and Academic achievement”. This study found that the higher “Academic achievement” respondents score significantly lower than the lower “Academic achievement” respondents on the control dimension of adversity quotient. Males scored significantly lower than the females on the control dimension of adversity quotient. The experienced and older respondents of this study significantly scored higher on the reach dimension of adversity quotient. The respondents who were experienced and older significantly scored higher than the younger counterparts on adversity quotient by the ending of the intervention programme.

Olila (2012) studied “adversity quotient of both public and private institutes’ educators/teachers”. It was disclosed that the educational attainment, age, civil status, length of service and gender were not related to the “Adversity quotient”. The scores of overall adversity quotient scores fell in the below-average category. There was a relationship between “Adversity quotient” and traits of personality temperament.

Hung (2013) studied, “the relationship between the adversity quotient and teaching efficacy of school teachers”. The results of the study revealed that when adversity quotient among teachers is higher then, higher will be their teaching efficacy. Adversity quotient of teachers had a significant explanation for the teaching efficacy.

Napire (2013) studied, “adversity quotient and the leadership style of school principals with regards to the demographic profile of the schools”. The study revealed that the scores of the school principals in “Adversity quotient and its dimensions Control, Reach, Ownership and Endurance” fell in the below-average category and for each dimension, their mean scores were lower than the standard benchmarked mean scores. The demographic variables like “Age, Gender, Civil status, Highest educational

attainment, Position and Length of service” were insignificantly related to the scores of the study variable and its dimensions in the school principals.

Shen (2014) conducted a study investigating, “demographic variables’ influence on the adversity quotient”. The results of the research study revealed that seniority and age have a significant effect on the “Adversity quotient”. Meanwhile, the educational background and gender had no significant effect on the adversity quotient.

Baroa (2015) conducted a study on, “the adversity quotient and leadership skills of administrators of the school”. The investigator identified the adversity quotient level of administrators of schools in control, reach, ownership and endurance dimensions. Overall adversity quotient level was in the below-average category. When taking the dimensions of adversity quotient individually, the administrators of schools lied in the average level category in reach dimension and in all the other dimensions i.e. control, ownership and endurance, the school administrators had below-average level. When the school administrators were categorized according to age i.e. older and younger age then, the levels of the respondents’ adversity quotients level fell in the below-average category in all the dimensions. When the respondents were grouped according to gender then, both female school administrators and male school administrators had a below-average level of adversity quotient level. When their level was assessed in all the dimensions then, female administrators were lower than their male counterparts, especially in the reach dimension. The married and single school administrators fell in the below-average category differing little dimension-wise. In the control dimension, female school administrators marked below-average level meanwhile male school administrators were in the low-level category. In the reach dimension, both female and male school administrators fell in the average level of category. The adversity quotient level of the school administrators with respect to years i.e. longer and shorter years as administrators of the school, both fell in the category of the below-average level. With respect to secondary school administrators and elementary school administrators, the adversity quotient level of both fell in the category of average level. However, when the analysis was done based on all the dimensions of adversity quotient, the levels of elementary school administrators was lower than the secondary school administrators especially in the “Control” dimension where the secondary school administrators had below-average level as compared to the low level of the category of elementary school administrators. The demographic variables such as, “Experience, Gender, Age, Marital status and School level” does not affect the

school administrator respondents' responses as to how they perceive the adversities being faced.

Bautista (2015) revealed that there exists a significant relationship between the "Adversity quotient and the Teaching performance" of the teaching faculty members. The "Adversity quotient" level of them fell into the high-level category and their "Teaching performance" fell into the very satisfactory level category. Their "Adversity quotient and Teaching performance" had a significant relationship between them.

Song and Woo (2015) studied, "relationship between adversity quotient and job satisfaction". The scores of the respondents in "Adversity quotient" were at significantly high level. The correlation between "Job satisfaction and Adversity quotient" was found to be positive and significant.

Priya (2016) found that male teachers have a higher mean score in "Adversity quotient, and its dimensions viz. Control, Reach, Ownership and Endurance" when compared to female teachers. It was revealed that the teachers of schools of government and self-financed management had a significant difference among them. Also, it was disclosed that experience had made a significant difference in the "Adversity quotient" of teachers.

Marashi and Fotoohi (2017) conducted study related to adversity quotient on a sample of EFL teachers having introvert and extrovert personality type. This study was conducted to reveal the relationship between "Professional development and Adversity quotient" of these teachers which was analysed by linear regression and correlation analysis. The study revealed that there exists a significant relationship between "Professional development and Adversity quotient" of an introvert and extrovert teachers.

Marashi and Rashidian (2018) conducted a study on, "a sample of teachers teaching English in Iran". The study was conducted to find out the relationship between "Adversity quotient", pedagogical success and personal growth initiative of the teachers analysed by multiple regression and correlation analysis. The study revealed that there exists a significant relationship between "Adversity quotient", pedagogical success and personal growth initiative of the teachers.

Mwivanda and Kingi (2019) studied the "Control dimension of Adversity quotient" of teachers and its effects on the "Academic performance" of the students. The

sample consisted of secondary school teachers and their students. The results revealed that there exists a significant difference in the control dimension of adversity quotient with respect to gender. Also, it was found that there exists a significant positive relationship between the control dimension of “Adversity quotient” of teachers and the “Academic performance” of the students.

Punitha (2020) studied the relationship between the pre-service teachers’ mathematics subject academic achievement and adversity quotient. The resultant values of this study disclosed that there exists a significantly positive relationship between mathematics subject academic achievement and adversity quotient in pre-service teachers. The pre-service teachers from the B.Sc. and B.Ed. integrated program had more adversity quotient as compared to the pre-service teachers from the B.Ed. program. The male pre-service teachers scored low in mathematics and adversity quotient than the female pre-service teachers.

1.6 ALIENATION:

When ‘what we believe in’, ‘what we intend’ and ‘what we want’ is in the odds with respect to what the reality may afford, then we tend to feel alienated. The individual starts disassociating himself or herself from the situation or the context. The awareness of discrepancy between the reality demands and the individual’s inclinations is referred to as alienation.

The alienation term basically means an experience mode in which an individual tends to consider or feel himself or herself as an alien. The individual becomes alienated from work, isolated socially and estranged from the culture. An alienated individual is basically out of touch with himself or herself as well as out of touch with any other individual. He or she normally experiences situations with common sense but simultaneously feels no relationship with himself or herself as well as with the outside world.

The phenomenon of Alienation has been defined by many researchers’ points of view, some of them are:

- Alienation is being disconnected in an expected relationship or desired relationship (Case, 2008);
- Alienation is the individual’s feeling of having distrust towards the society and other people (Mann, 2001);

- The feelings of alienation results into creating a situation in which an individual starts to have feelings of being disconnected from himself or herself at work, from the social environment and at a personal level at an unconscious level as well as the conscious level (Tolan, 1981).
- Alienation is the separation among the whole and parts of significant aspects of personality and experience (Lang, 1964).
- Alienation is a psychological state in which an individual develops a sense of loss of relationship with others and feels relatively estranged, having lack of power, socially isolated, apartness, anomie, having lack of meaning, cynicism and dissatisfaction (Seeman, 1959).

Foundations of Alienation

The alienation notion is supposedly developed in old times/days which meant apathy, being cut off, being aloof, being indifferent, turning or keeping away and their likes from somebody or something be it the administration, culture, society, the self, religion etc. The concept of alienation is central to the thought of Marx. The predominance of this has been at the workplace which then assumes or presumes overriding importance.

- *Views of Fromm:*

Fromm (1955) said that the individual doesn't experience and consider himself or herself as the center of attention of the world but considers himself or herself as someone who creates his or her own acts. These consequences and acts become his or her masters whom he or she obeys.

- *Views of Marx:*

Marx (1968) summarized the concept of alienation in the labour firstly as the fact that labour is an external entity to the worker which means that that there is no affirmation of oneself but denial of oneself, one is not content but is unhappy, one does not have the mental energy and physical energy developed freely but there is the mortification of one's body and it ruins their minds. Therefore, the worker only has feelings of himself being outside one's work and one feels that work is outside himself. The individual is not present at home even when he isn't working and the same happens

at work. Therefore, the labour done by him is coerced not voluntary, it is, therefore, forced labour.

- *Views of Ziller:*

Ziller (1969) conforms to the general views of alienation. According to her, alienation is hopelessness attitude which results from the inability for structuring environment in terms of either a stable orientation from others, stable orientation from self or cessation in the attempts of the person for confronting the social environment having no mechanism for guidance from other or self-generated. The person who is alienated doesn't mediate through the stimuli of the environment; through the concept of others or the self-concept. The alienated individual is not an accepted member within a sub-group (significant) and there is a perception of them as being individuals who are unguided in an uncharted environment.

- *Views of Lang:*

According to Lang (1985), self-estrangement is stressed in alienation. According to him, as a part of normal experience, there is a loss of emotions. Because it is threatening, the emotional interest withdrawal from the external world leads to a concern which is exaggerated with one-self. This can express itself either in extreme feelings that are altered, depersonalized, sensitized and isolated when the feelings that are overcharged are dissociated or repressed from the conscious personality.

Theories on Alienation

The theories of alienation are mainly concerned about the explanation of circumstances leading towards alienation and also, its outcomes. The alienation theories' origin may be traced and looked back to Marx writings. It is with early writings of Marx publication, having the title topic as 'Economic and Philosophic Manuscripts' in the year 1932 when the alienation concept actually became a known affair widely. Soon thereafter, Fromm came with the forefront of alienation (Swingewood, 1975). Some of the important and essential alienation theories have been known and named after the names of the researchers as follows:

- *Marx's theory:*

Marx firstly pointed out alienation as the complexion of socio-economics in his early writings. He gave a concept of philosophy which had both empirical dimensions

and normative dimensions. Marx was the first person to indicate alienation to capitalism relationship. Marx gave an argument that the ownership (private) of factories; labour specialization and in general, the technology, produces a system in which the individual workers increasingly get detachment from the results of hard work of their own labour.

He also gave an argument that labour social division created vast personal wealth and capital accumulation at only one end of the society and achievement of ascending in value of things is done at the man (as a human species) progressive devaluation cost (Swingewood, 1975). Marx made an observation that the majority of spheres which are human species in the society of capitalism like the state, the political economy and the religion were marked by the alienation condition. Also, these different alienation aspects were inter-dependent.

- *Fromm's theory:*

Fromm's contributions have been adapted from Marx's concept of alienation from the conception to the contemporary situation. Fromm further proceeded for application of the term alienation virtually in connection and relation with every sphere of contemporary life. Fromm (1962) stated that the individual's essence consists of the inherent contradiction in one self's existence which is nature's part and still it transcends with the endowment of self-awareness and reason.

- *Horney's theory:*

Horney (1939) revealed that the condition of alienation happens when an individual develops an "ideal image" of himself or herself which is very different from one's reality due to which there is a profound gap between the individual's image (ideal) perception and his own real-self and the individual clings to the belief of the image (ideal). For being under these circumstances, an individual then loses the sight of one's actual real-self. Horney (1950), pointed her earlier concepts of self-alienation which reappeared in her last book. In this book now, these concepts of alienation were defined and distinguished explicitly with respect to a distinction between the "real self and the actual-self" dimensions.

The alienation from real-self is to be conceptualized as being majorly alive at the center of oneself which supposedly is endangering one's feelings' spontaneity and it is the energy source and interest source which is spontaneous in nature. On the other hand,

the alienation from actual-self is characterized in terms based on an individual's energies, feelings, beliefs, wishes and also the individual's past.

- *Weber's theory:*

The theory of alienation by Weber (1968) laid emphasis on the domination of the bureaucratic system which was common to the socialist systems and bourgeois systems. Both socialist systems and bourgeois systems are in the requirement of a bureaucratic organization. There is equal importance of control as well as discipline in this context so, some alienation forms become inevitable. Capitalism by itself would have been an impossibility without bureaucracy. The capitalism development naturally hinged on the rationality of the bureaucratic system so much so that it created an urgent demand for an administration which is intensive, calculable, stable and strict.

The alienation source must be traced in the rationality of the bureaucratic system which functions as an external force and is independent of the control of humans. In Weber's definition of alienation, one may, therefore, make an observation that the technology and rationality have reified their societal impact which can be modified but cannot be brought down under the will of a human and it is subordinated to the purpose of humans.

- *Seeman's theory:*

According to Seeman's (1959) theory of alienation, the alienation implants in a person because of institutional problems which are inter-personal, social etc. Alienation is a psychological state in which an individual develops a sense of loss of relationship with others and feels relatively estranged from self which is being estranged in self-fulfilling and intrinsically rewarding activities, having lack of power i.e. lack of having control over the events/situations, having isolation i.e. perception of the inability in identifying with an organization or a community, apartness, anomie i.e. lack of commitment for sharing the behavioural social conventions, having lack of meaning i.e. having a lack of purpose and significance of the social affairs as well as personal affairs, cynicism and dissatisfaction. Ojha (2010) directed his work on alienation on the grounds of the work of Seeman (1959). The term social isolation as a dimension of alienation is referred to as having detachment for social values. Cultural estrangement as a dimension of alienation is known as value isolation viz. one's rejection of values which are commonly held culturally. The term work alienation refers to being powerless meaning exclusion from

decision-making, absence of effective guidelines for behaviour thereby becoming normless, lack of clarity being meaningless and being estranged from self which means a loss of intrinsically meaningful activity (Seeman, 1959; Blauner, 1964; Mottaz, 1981; Seeman, 1991; Lacourse et al., 2003; Mendoza & Lara, 2007; Ojha, 2010; Chiaburu et al., 2013; Shantz et al., 2015; Nuran, 2018).

1.7 THE REVIEW OF RELATED-LITERATURE OF ALIENATION:

Following are the various studies highlighting the academic alienation:

Academic Alienation

Chamberlain (2003) conducted a study on perspectives of study respondents on alienation in adolescents. The researcher in this study reported by taking interviews for illustration of various perspectives on alienation in adolescents with three study respondents. Out of the three, one was an individual suffering from multiple disabilities; a special educator having learning disabilities and an educator who researched on alienation. This study revealed according to the different perspectives of study respondents that the alienation exists in the adolescents at different levels.

Levy (2009) conducted a study on the alienation cycles and its exclusion among the female university students. In this research study, exploration of the experiences of females who were first females of their home villages for studying in universities with a focus at the ones returning to home after their studies was done. For these females, to study in a university meant, crossing the barriers of culture and gender which lead them to pass profoundly through a path which was different from that of their childhood friends or families. But, upon returning to their villages, their accomplishing feelings and pride were followed by alienation.

Robert et al. (2009) studied the adolescent students' academic alienation with respect to their family experience, mental health and motivation. The investigator in this study studied pattern differences of family experience, mental health and motivation. The students who fell in the category of upper and lower levels were designated to be as high alienation groups and low alienation groups respectively. The high alienation groups and low alienation groups were compared on self-report of students on their home/family support for schooling, their mental health and their academic motivation. In specific terms, the students who were disengaged, especially the students who were part of school problems like failure and suspension reported to reveal feelings of low positive feelings

of resilience, self-worth and belongingness; lower grades; more feeling of depression and anger and low positive beliefs on the importance of education and their own academic competence as compared to non-alienated peer counterparts.

Shrivastava and Mukhopadhyay (2009) revealed in their investigation that those adolescents scoring above the benchmark point were identified to be as the affected-group having six symptoms which were internalized; the adolescents identified to be as the moderate-group showed four to five internalized symptoms; the adolescents identified to be as the mild-group showed one to two internalized symptoms and the adolescents belonging to the normal-group did not have any internalizing symptoms. The study results disclosed alienation (significant) in affected-group and this group was immature emotionally in management and awareness as compared to the other comparative group.

Singh and Sahu (2010) revealed that there existed insignificant alienation in adolescent students in relation/association to residential background, gender and status (socio-economic). This research's overall findings revealed the results according to all the interaction effects and main effects of all the independent variables which were residential background, gender and socio-economic status on the dependent variable alienation were found to be insignificant.

Mirghasemi et al. (2015) investigated alienation of students by monitoring their social capital, economical capital and cultural capital. This descriptive and analytical study revealed that the medical sciences students' alienation significantly differed from the alienation of the medical-related fields students. The further findings disclosed existence of relationship (significant) of students' academic alienation with social capital as well as cultural capital. Also, it unfolded existence of insignificant relationship in-between students' academic alienation and economical capital.

Long (2015) studied the psychological nature of academic satisfaction and alienation among students (racially black) studying in educational institutions (racially white). This study was especially and mainly conducted since it is a true fact that the phenomenon of the alienation is prevalent in these students studying in such kind of institutions. By review of existing data; through questionnaires and interviews, it was revealed that in these institutions, there was extreme under-representation of these students requiring access to dimensions of socio-cultural campus climate and psychological campus climate.

Alienation in Teachers:

The following is the sequence of the various studies highlighting the alienation in teaching professionals.

Deci et al. (1981) stated that the teachers have a feeling that they do not have inputs which are meaningful and then put them into decisions despite them serving in major committees and that they are not able to get any change in school policies. More than the one-third of teachers perceived their colleagues with feelings of loneliness.

Templin (1988) pointed that the faculty and also in the case of most of the teachers working in isolation, there is a high probability of having a system of alienation being part of the culture.

Johnson (1991) explored the relationships between the degree of centralized decision-making which exists in a school, teachers' cognitive and affective work alienation, and multiple indices of school effectiveness. The results obtained a significant, positive correlation between centralization and both measures of work alienation; relationships between work alienation and the various effectiveness indices were mixed in both direction and magnitude; when the effects of alienation were statistically controlled, the magnitude of the relationship between centralization and effectiveness was considerably reduced.

Johnson and Ellett (1992) examined the relationships among school-level learning environment measures of teachers' perceptions of centralized decision making, work alienation and multiple indices of school effectiveness. Teacher work alienation was taken as a mediator of the relationship between school centralization and effectiveness. The results of the study supported a significant, positive correlation between the degree of centralization and the degree of teacher work alienation. Relationships between work alienation and the various effectiveness indices were mixed in both direction and magnitude. When the effects of alienation were statistically controlled, the magnitude of the relationship between centralization and effectiveness was considerably reduced.

According to Richardson (1993), the perceptions of the teachers towards their power for executing and conceiving their own common beliefs and social connectedness about the school goals and teaching goals interacts with the structures of the organization for influencing the extent and the nature of the alienation.

Hargreaves (1994) revealed that the alienation experienced in the teachers hinders them in reaching to the point of their full potential in relation to their efforts with the pupils. Hence, this prevents the teachers from getting engaged in work-collaboration.

Thomson and Wendt (1995) revealed that the hardiness personality trait could moderate against the negative effects of work conditions that lead to alienation. A multiple regression model using hardiness, school climate and their product interaction term accounted for 30% of the variance in the alienation scores of prospective teachers. Individuals indicating higher levels of hardiness had significantly lower alienation scores across all school climate conditions than their less hardy counterparts did. Data indicated that as the school climate becomes more supportive, prospective teachers who have high levels of hardiness become progressively less alienated. For those low in the hardiness construct, alienation may actually increase as climate conditions become more supportive.

Prasad (1996) indicated existence of alienation's impact (significant) on teacher effectiveness. It also revealed that a significant correlation exists between alienation and teacher effectiveness. In terms of scores, the low effective teachers would have significantly more degree of alienation comparatively to highly effective teachers in alienation and its dimensions.

Vogel (1996) revealed that the alienation may hold up a shape of failure in recognition of environmental characteristics which are created by humans.

Yap (1997) examined whether rural telecomputing initiative made a difference in teachers' isolation. The study included two written surveys, nine months apart, of teachers and principals. Evaluation teams visited two participating schools within each local project annually, observing science and mathematics classes; interviewing principals, teachers, and students; and moderating focus groups. Results found that telecomputing reduced teachers' sense of isolation and increased their collaboration with colleagues and experts.

Shoho and Katims (1998) examined the perceptions of alienation among special and general education teachers and measured the level of alienation between special education teachers assigned to inclusion vs. self-contained/resource classrooms. Results indicated that special education teachers had significantly higher levels of alienation than

general education teachers. In addition, there were no significant differences in alienation found between special education teachers assigned to inclusion classrooms and special education teachers assigned to resource or self-contained classrooms.

Shoho and Martin (1999) investigated the perceptions of alienation among alternatively and traditionally certified teachers. AC teachers were found to be significantly less isolated than TC teachers. This may be attributed to their relative inexperience as teachers as well as their current participation in a cohort program that provides some level of insulation from the alienating effects of schools. Other comparisons between AC and TC teachers found insignificant differences in alienation. The high levels of alienation provide further support for the existence of what previous researchers described as the confinement from one another of teachers to isolated classrooms and alienating work conditions.

Hoy and Sweetland (2000) revealed that empirical results on school bureaucracies are encouraging and suggest that schools can be designed with formalized procedures and hierarchical structures that help rather than hinder. Teachers report that some rules help rather than constrain and some hierarchies facilitate teaching and learning. In such schools, teacher alienation is reduced and trust among colleagues is fostered.

Kyriacou (2001) indicated that alienation in teachers is evitable. Rather than being alienated, teachers teaching in the good schools having a communication system with strong collegiality and open among staff, experience higher job satisfaction levels and commitment levels.

Grasty (2002) studied perceptions of teachers on alienation in non-collaborative vs. collaborative classrooms. The study revealed that teachers of special education in collaborative classrooms scored lower in isolation than the teachers of special education in non-collaborative classrooms. Regular teachers in collaborative classrooms scored lower in isolation than the regular teachers in non-collaborative classrooms. The teachers quoted that the contributing factors for alienation were lack of planning together, role ambiguity and bad communication skills.

According to Dworkin et al. (2003), alienation experiences of powerlessness and meaninglessness when prolonged could decrease the teaching commitment of teachers.

This in turn could foster isolation. If the teachers work in bureaucratic schools, they are more likely to have alienation feelings.

Ingersoll (2003) revealed that teaching is regarded as being a loosely decoupled or coupled organizational system and occupational system. Within these sets of system, a teacher has a potential to enjoy the autonomy of a higher degree over/above their labour since administrators of the school rarely exert and inspect little control on their practice of teaching. Therefore accordingly, the teachers are less likely to have an experience of alienation.

Phug and Zhao (2003) helped in identifying two alienation sources. These two sources were the teachers' obtained resources through acquisition of grant which would have the potential of disrupting the egalitarian culture of teachers; increasing the subjective empowerment and pressure due to affording grants which could potentially lead to an escalation of existent conflicts. In totality, the teachers had experiences of alienation when their subjective and initial empowerment sense was undermined due to the administrative decisions or teacher culture.

According to Cochran-Smith (2003), the rate of high attrition in teachers and its phenomenal subsequent consequences lead to various unresolved problems of alienation in teachers.

Ngom (2004) conducted a study on whether the paradox of schooling is alienation or enlightenment. The study was conducted on urban school teachers. It was disclosed that teachers hailing from low socio-economic status have more positive expectancy behaviours. Though the finding was not significant statistically but the male teachers had less positive expectancy behaviour than the female teachers.

Schlichte et al. (2005) case studied isolation and alienation in teachers. Researchers interviewed a total of five novice teachers regarding their first-year teaching experience to know about the teachers' attrition. It was revealed that if necessary support is not given to them by the stakeholders of education then these teachers prefer opting out of the teaching profession. The study was conducted to determine whether these negative factors can be reversed to reduce attrition and one important factor came out to be the impact of relationships.

Kumar (2006) conducted a study on alienation in teachers. One of the main objectives of this study was to, “find out the differences in the female and male teachers in their alienation with respect to their gender”. This objective finding disclosed that insignificant differences existed between female teachers and male teachers in their alienation.

Kumari (2006) conducted a study on teachers’ (secondary school) alienation. Findings of this study according to objectives framed revealed that gender is an insignificant determinant of alienation feelings of secondary school teachers. Also, it was disclosed that the secondary school government female teachers and secondary school private male teachers were higher on their alienation.

Mendoza and Lara (2007) studied impacting role of the work alienation of teachers on their organizational citizenship behaviour. Work alienation was a mediating variable in the study. The resulting model tested in this study revealed that the model is fit, organizational citizenship behavior of teachers is predicted by person-organization and their relationship is mediated by the work alienation in teachers.

Research from Hughes et al. (2008) suggested that alienation in teachers is not diminished rather it is heightened by various types of reforms at school. This alienation intensifies and so it prompts the teachers towards disengagement and often leads them towards leaving the teaching profession.

According to Brooks et al. (2008), teachers had experiences of alienation and its forms but each of these teachers had interpreted alienation uniquely and differently. For the teachers, alienation experiences evolved over time and differed from situation to situation. The study concluded that the alienation in teachers was a phenomenon which had fluid nature. This basic assertion of alienation has implications which are profound for policymakers, administrators and teachers since they are considered to be implementing and adopting initiatives of reforms.

According to Choi and Tang (2009), experiences of alienation and in terms of meaninglessness and powerlessness in prolongation can decrease the commitment of teaching in a teacher.

Hu and Li (2010) studied university students’ and teachers’ alienation and how to restore their relationship with respect to communication action theory. The reasons

behind alienation came out to be the tendencies of utility because of communication artificiality, breakdowns of interactions because of communication abstractness and information exchange asymmetry. The study recommended that in order to have a normal relationship, the students and teachers must adopt channels of broadened communication, promotion of dialogues that are constructive and have fair values.

Sindberg (2011) conducted a research related to isolation in teachers teaching music. This study found that primarily, teachers were experiencing isolation professionally at different levels. Living the experience of connectedness as well as isolation by these teachers was found to be constructed personally and was meaningful individually.

Bin (2012) studied the promotion policy of the post of teachers with regards to alienation, optimization and evolution. It was revealed that the teachers divert their attention more towards promotion rather than their professional development since promotion was dependent on the degree of abilities in teachers rather than the different types of abilities in teachers. This policy of the rank-based system of promotion of teachers was leading to discrimination among the teachers.

Henning (2013) pointed out that the alienation may be found in people and things which are too quickly placed or considered in pre-conditioned categories and preconceived categories. This implication of the study pointed to the importance of confrontation with the world perceived having a lens with a new concept in overcoming the alienation. It was noted by the researcher that for treating other people as human beings, there has been a failure. This puts into denial of the ability/capability of individuals to engage with each other as caring human beings.

According to Wang (2013), in excessive instances, the teachers can consider the teaching profession to be earning source for a living for them instead of considering it an inherently honouring profession. This may result in the form of alienation of being estranged from self.

Henning (2013) revealed that the price paid by the society for a workforce having alienation is just not a simple denial of the personal fulfilments rather it also creates trouble in all aspects of the social life.

According to Erbas (2014), levels of alienation in teacher candidates towards the profession of teaching were in the moderate category. Also, it was revealed that the levels of alienation were profound predictors of their levels of attitude towards the profession of teaching.

Soza (2015) revealed that the teacher dissatisfaction gives rise to teacher alienation with respect to Seeman's alienation theory. Also, specifically, it was revealed that all forms dissatisfaction in teachers causes teacher alienation. The root cause of every negative consequential aspect having an association with dissatisfaction in teachers was the alienation's oppressive nature.

Martinez et al. (2016) studied a total of ten teachers teaching from elementary school level to high school level. The study was conducted through observations and interviews. The study revealed that by participating in the community-based organizations, the teachers felt supported in enduring the psychological and social consequences of alienation they experienced at the schools.

Verma (2017) conducted a study on a sample of primary school teachers teaching in different government schools and private schools to study their work alienation in Kanpur city of India. The results of the study disclosed that insignificant difference existed in the interaction between gender and job-sector in work alienation of teachers (primary school). Female gender teachers teaching had less work alienation as compared to the male gender teachers teaching in primary schools.

Tsang (2018) conducted a study on alienation in teachers. The study revealed that the teachers would be suffering from the sense of alienation and its factors due to teaching experience. These resultant discoveries indicate that the alienation patterns differ between less/low experienced teachers and more/high experienced teachers.

Dhillon (2019) disclosed that there is existence of a relationship (significant and negative) in-between the alienation and the job satisfaction of teachers. Also, the study found existence of a relationship (significant and negative) in-between the alienation and the self-esteem of teachers.

Kutlu and Cansoy (2020) study's sample constituted teachers teaching in high schools, middle schools and elementary schools in (Karabuk) Turkey. The analysis was done by regression and correlation analysis. The findings of the study revealed that the

teacher alienation was negatively correlated with the reward power of school principals and also, the teacher alienation was negatively correlated with the personality power of school principals. Whereas, the teacher alienation was positively correlated with the coercive power of school principals and also, the teacher alienation was positively correlated with the legitimate power of school principals. It was also revealed that teacher alienation was negatively predicted by the reward power of school principals. Whereas, teacher alienation was significantly and positively predicted by the coercive power of school principals.

1.8 CHANGE PRONENESS:

Change proneness is an acceptable state which involves ideas which are imaginative and new which may sometimes lead towards failure or towards success. The term change proneness is to be defined as an association of new state with a situation resulting in association with the life which may reveal failures or achievements that are anticipated.

Almost the term change proneness has become a catchword. Change proneness is the tendency or capacity for acceptance of anything which is novel and new, which can be imbibed in work-style. Everyone must have acceptance of those changes and the truth too. In olden times, if a strange concept, a novel theory or a new discovery was proposed then there was an upsurge among other people. The nature of predominance of change proneness is not the evolution but the revolution, not the graded step-wise modification but the outright change, not the slow transition but the sudden change. Various truths of science emerged as a consequence of the thinking which was eminent by the great researchers and scientists and they said to make replacement in the facts which were established up to the day and these took a very long time to get acceptance.

The term change proneness is meant to be readiness or inclination, an individual has to alter or change his/her thoughts, attitudes, behaviour and feelings by not restraining himself/herself towards rigidity but having flexibility (Mukhopadhyay, 1980). The change proneness's meaning is self-explanatory in the term 'change proneness' itself. The term 'proneness' means being ready or inclined or having the likelihood. So, 'change proneness' can be put into the connotation of being ready or inclined or possessing the likelihood of change. Change proneness gives an indication of the individual's mental orientation for change. So, rather than being local, change proneness is a conceptual

approach viz. global in comparison to open-mindedness/cosmopolitanism as used and studied in earlier research work studies. Hence, change proneness may be referred as the change in an individual's behaviour especially professionally and with regard to innovation adoption which may depend upon the tendency to which an individual has an intention to change himself or herself. Therefore, measuring the individual's orientation for readiness and proneness towards change becomes an important issue.

Theories of Change

The following are the main essential theories of change given by the following researchers by their research findings:

- *Fullan's Change theory:*

The work of Michael Fullan is focused on educational change. He laid focus on participative humans who took part in the process of change. Fullan focused on the strategies and the roles of different types of agents of change. Fullan viewed that all the educational change stakeholders are an agent of change. Fullan (1993) gave away eight lessons basic in nature about thinking of change. These are as following:

1. *Cannot mandate what matters:* He pointed out that the effective agents of change cannot embrace and cannot ignore the mandates. One uses them for the re-examination of what he/she is doing as catalysts.
2. *Change is not a blueprint but a journey:* According to him, change is not linear, is loaded with excitement and with no certainty along with negative and positive forces.
3. *Problems are one's friends:* We cannot learn without problems and they are inevitable. For any kind of change effort to be successful, conflict is essential.
4. *Strategic planning and vision planning come later:* Planning and vision done prematurely are blind.
5. *Collectivism and individualism must equally have power:* Group thinking and isolation have no solutions that are one-sided.
6. *Neither decentralization nor centralization works:* Both strategies of bottom-up and strategies of top-down are necessary.
7. *Critical to be connected with the broader environment:* The organisations that are best, learn internally as well as externally.

8. *Every individual is an agent of change*: The ultimate protection is an expert's mastery and personal mind-set so, change is too essential to be left to it.

- *Theory of Change Conditions by Ely*:

There were eight conditions listed by Ely (1999) that must be created or must exist in the environment wherein innovations are to be implemented for the facilitation of its adoption. These eight conditions are as follows:

1. *Status quo dissatisfaction*: When an individual has a perception for a need for changing the environment, the pre-condition for the individual is to accept change. Perceiving these kinds of needs is usually disclosed in dissatisfaction of an individual of existing programs, methods or products. By identification of the individuals having dissatisfaction and understanding the cause behind it may help the agents of change for innovation communication to adopters in a better effective manner. According to Ellsworth (2001), by understanding the dissatisfaction levels and sources behind it, it may help the agents of change in positioning the more compatible innovation with one's 'felt needs'
2. *Sufficient skills and knowledge*: For successful implementation, the individuals who willing to implement any kind of innovation, should have sufficient skills and knowledge for doing the job. It is evident especially when innovation has the involvement of a type of technique or tool. Not having sufficient training for using technique or tool will lead the innovation to be obsolete soon.
3. *Resource availability*: Without resources like material, money and tool to support in implementing the innovation, the innovation will not be a success.
4. *Time availability*: Innovation adoption is a time-consuming process. The ones who are to implement innovation should have time for adapting, learning, reflecting and integrating on what they have to do. The individual's confirmation of accepting innovation not necessarily brings out change. For understanding innovation and development of abilities for adaption of the innovation, an individual needs time.
5. *Incentives or rewards*: For using and performing innovation, one needs to foster a sense of encouragement. To promote implementation of innovation, intrinsic or extrinsic rewards may add value to an extent for the innovation.

6. *Participation*: The ones who are to participate in innovation implementation, ought to be motivated to get involved in the process of decision-making. The ones participating ought to have a feeling of owning the innovation when given opportunities for communication of their opinions and ideas. Moreover, the communication process among all the concerned parties would help in monitoring the innovation's progress,
7. *Committed*: The ones being involved in innovation implementation need to be committed to giving their time and efforts as it takes time and a huge deal of endeavours. The continued implementation support and endorsement ought to be visibly and firmly evident.
8. *Leadership*: The implementation process is greatly impacted by the commitment and expectation of the leaders. Affective support availability through the process is also included in the leadership.

Change Proneness and its Nature

Miller (1967) minted the term as well as conceptual approach of "Change Proneness". According to him, change proneness is curiosity's congregational impact of mental flexibility and open mindedness. Individuals take a risk for the introduction of strategies which are new and novel, imbibe and inherit ideas which are new. With a high attitude towards change proneness, there would be origination and generation of new ideas. Change proneness is sensed as success, commitment and satisfaction for pursuit and search of latest methods, ideas and techniques. Change Proneness has been defined as dilemma situation and flux state given via the cause's commitment or the life's way which promotes rewards that were expected or failures in producing revolts that were unexpected. Teachers at their best should not submit rather they should strive, they must not be reactive but active and they should not have their behaviour dictated by any authority rather teachers should be the author of their own behaviour. The teachers must perform and carry out their duties in their own styles. The teachers' functioning patterns reveal and show the presence of types of teachers who may have a very flexible approach, maybe adopting innovative strategies that are new, are implementing techniques that are novel and are accepting new strategies. A teacher who is creative, competent and committed working with enthusiasm and high spirit act as a driving force taking out the darkness from students' minds thereby making their students an educated and cultured

citizen. Having all these qualities in the teachers will make the teaching-learning process in education effective.

Miller (1967) described change proneness conceptually in comprehension. Proneness in thoughts, inquisitiveness, radical change, being shrewd, innovativeness, inquiring tendency etc. are the traits that help the change proneness. Evidently, the change proneness depends on two of the most opposite aspects of ideology i.e. flexibility and rigidity. Understanding these opposite aspects of ideology i.e. flexibility and rigidity in evidence would give a helping hand to the researchers by putting a light towards change proneness concept. The main hindrance for inviting a novel theory and acceptance of a new theory is having rigidity. Rigidity is defined to be a shortage of adaptability or shortage of variability in behaviour or response. In the situations of life, some individuals have behavioural rigidity and some do not. The very same individuals having rigidity in one kind of circumstance can be flexible in other kinds of circumstance.

For instance, some people would be great in problem solving in science lab but aren't good in the application part of techniques of problem-solving in their routine social problems. The meaning of rigidity according to the Atkinson dictionary, is a trait of personality which is characterized by not having the ability to alter one self's manners of adjustment, opinions or attitudes. The exhibition of being inclined towards a thing which can be strange and new can be possible due to flexibility. In situations of life, some individuals have behaviours which are flexible and some who do not.

In their basic ideologies, low and high change-prone teachers are two different contrasting individuals. The high change prone teachers have confidence and they accept the challenges being faced. The high change prone teachers have competence and commitment feelings which are opposite and in contrast to the low change prone teachers. Both low change prone teachers and high change prone teachers are opposite poles whether practically or theoretically.

1.9 REVIEW OF RELATED LITERATURE OF CHANGE PRONENESS:

The following is the sequence of the various research based studies highlighting change proneness:

Oscarson (1977) conducted a study on, "identifying the adoption proneness among secondary school teachers to find out their proneness towards educational

innovation adoption". The study revealed that the adoption proneness of teachers is related to the age of the teachers, the amount of various professional publications read by the teachers monthly, teaching experience in present school's district, satisfaction in teaching, perception of academic teachers' influence on classroom procedures of vocational teachers. The analysis of the study is useful to diffuse the educational innovations broadly across areas geographically.

Mukhopadhyay and Saxena (1980) studied contributing factors affecting change proneness in teachers. The researchers reported that the change proneness has a relationship (positive and significant) with teachers' relation with principal; attitude towards the profession of teaching; teaching satisfaction; principal's perceived leadership behaviour; teacher's rapport; perceived teachers' status; urban background and job satisfaction of principals and teachers.

Oscarson et al. (1980) identified the activities or methods which may be most influential in the use as well as acceptance of innovations in education. The findings of this research study revealed that the groups that were adoption-prone assume the leadership towards the usage of innovations.

Vinaitheerthan (1981) in his doctoral research study revealed that the dissonance state of innovations in teachers was influenced by their gender, professional training, teaching experience and age. The climate of control contributed significantly towards the change proneness, process of teaching-learning, intimacy and attitude towards innovation. The organization's open climate had a significant relationship with change proneness.

Holman et al. (1983) categorized the ways in which teachers conceptualize their imagination. It was disclosed that the teachers conceptualize their imagination as an ability; something which is ideating; an inventive process; a problem-solving process; a mental or thinking activity which is beyond thinking ordinarily i.e. not being limited by logic, personal inhibitions or reality; as a basis of thinking creatively i.e. being flexible, unique, product and idea of originality, fluency; individuality expression; visualization, fantasizing dreaming as well as mind-wandering.

Based on findings from a wide range of secondary literature, Andreassen (1991) postulated the existence of a latent psychological state labelled as readiness to change. According to him, individuals can be differentiated on the basis of their enduring general

and category-specific readiness to change and their readiness to change a specific behaviour given their present life status and stage in the behaviour change process.

Pace (1992) examined factors that promote or impede grass-roots change efforts in elementary schools, specifically teachers' attempts for change to shift from a traditional textbook, teacher-centred language and literacy curriculum to learner-centred, whole-language approaches. Three major sources of tension were identified as, tension between an old paradigm or belief system about language and learning, and new ideas requiring a paradigm shift; tension created when a teacher attempts to implement new instructional strategies and teacher-developed curriculum while maintaining in-place curriculum; and tension between the teachers engaged in change and other teachers in a school.

According to Conley (1993), the factors that can powerfully affect an educator's ability to manage school change are culture, leadership and readiness. Movement from bureaucracy to community, from isolation to collaboration involves cultural changes. Managing the change process within a cultural context is influenced by the structural, human resources, political, and symbolic frames of reference that a leader employs when analysing the organization. Leadership in schools continue to revolve around the role of principal. Principals need to develop a clear, unified focus, create a common cultural perspective and support a constant push for improvement. Creating readiness for change is a precondition to restructuring. Several models suggest stages that leaders should understand before they begin a transformative change process. Ten commitments to change that a school staff might embrace were identified and a series of questions were provided that can be used to assess current practices and ascertain which restructuring goals a school is ready to undertake. One effective means of building readiness is to provide staff the opportunity to visit schools that are actively involved in restructuring and ask questions about meaning, organization, and effects of change.

Hogen (1994) found that change occurred in teachers because they felt support from their administrators, they were provided time and money, they shared a common goal and they perceived a positive environment for change. It was also found that teachers were actively involved in the change efforts and had many opportunities for shared decision making, team planning time and collaboration, staff development with follow-up support and district-wide meetings and in-services. Results of the study indicated that the

more active the teacher was in an innovation, the more likely he/she was to perceive positive changes from the experience. Additionally, those teachers who perceived a need for a change also perceived the change to be more effective.

Rogers (1995) classified five categories of the kinds of individuals working in a field having proneness to change. These people may be described in a curve which is parabolic in nature. The first category of classification is the people who are innovators having high change proneness with fresh thoughts, they accept any kind of alterations and they strive exemplarily towards the invention of new strategies. The second category of classification are the people who immediately implement new ideas and adapt them but they may not be able to think new. The third category of classification of the people are the ones numbered in the majority following and propagating innovations successfully. The fourth category of classification of the people are the ones who willingly have no likeness towards joining and accepting innovation of their own but if there is a compulsion of any sorts then slowly these people strangely consent strategy's originality and innovation. The 5th classification category of the people are the ones who are laggards. These people are always lagging behind and don't have the willingness to accept innovations. They are rigid causing hindrance and are criticizing towards new innovations.

Gordon (1996) examined the leadership style and readiness for change exhibited by elementary school principals. The results revealed a significant relationship between personal readiness for change and leadership style and also between personal readiness for change and highest earned academic degree. Principals with a considerate leadership behaviour and those holding a doctorate appeared ready for change. Gender, age and years of administrative experience were found insignificant with respect to personal readiness for change.

Siesel (1997) gave three propositions and developed a new model based on her study. The study revealed that teacher attitude towards change can be affected by succession pre-arrival factors; non-functional attitudes towards change are affected by past experience; functional attitudes towards change are affected by the interaction of past experience, participation in the selection process, and the orientation of the new principal.

Senger (1998) examined teachers' inner reflections and exterior manifestations as they participated in a mathematics reform effort. She described the analysis of three

elementary mathematics teachers as they struggled with issues of reform and traditional teaching in relation to personal values and beliefs. Methods included observation, reflective dialogue and group processes that took place over the course of a whole school year. Through careful analysis of the data, models evolved describe how the participants mentally and experientially moved toward belief change. Intermediary steps included the teachers' use of visual images, verbalization and experimentation. Findings revealed that the teachers devised personal, complex, internal and external feedback networks integrated changes over time.

Udayagiri (1999) studied change proneness of the teachers of primary schools as a factor determining to meet the hard to reach students' needs. In his study, it was disclosed that female school teachers are not highly change prone comparatively to male counterparts. Also, it has been disclosed that the rural school teachers have less change proneness as compared to urban school teachers. The study further highlighted that the non-residential school teachers had less change proneness as compared to residential school teachers.

Pligge et al. (2000) described teacher change using the backdrop of a standards-based reform mathematics curriculum for middle grades and direct quotes from teachers and math support coordinators involved in the implementation over the last five years. Each of the sixteen participants had at least one year of experience teaching or supervising the instruction of the curriculum. The results of survey, interview and classroom observation data illustrated that, for the selected teachers and support staff, both the design of the curriculum and the staff development workshops changed their perceptions of both what mathematics is as a subject and how mathematics should be taught. The quotes from the participants and the specific examples that they refer to in the curriculum provide evidence of the legitimacy of their perceptions about how they have changed their beliefs about teaching and learning as a result of their interactions with this particular curriculum.

Hjelle (2001) studied the school teachers' resistance towards change. The study revealed that the teachers were of the perception that regardless of their professional opinions and expertise, the policymakers and administrators of the school had expectations from them to blindly accept change. Even if an opportunity was given to the teachers to contribute towards the change in curriculum, they were quoted over-riding

problems with regards to the structure of the organization in the schools they teach. The study pointed out that the teachers showed various forms of resistance to change. The successful change initiative execution is prevented due to non-productive resistance. The productive action contributed towards successful changes in curriculum though it resisted a few change aspects. It also brought about positive teacher transformations.

Yu et al. (2002) examined the effect of transformational practices of leadership in school principals on commitment to change in teachers in Hong Kong. Change strategies, the structure of school, culture of school and environment of the school were the mediating variables. It has been disclosed that there is existence of effect (significant and strong) of transformational leadership on change strategies, the structure of school, culture of school and environment of the school. Also, there was existence of significant effect (not strong) of “Transformational leadership” on commitment to change in the teachers.

Hashweh (2003) proposed that if teachers have awareness of their implicit practices, ideas and conduct a critical examination of them; construct alternative beliefs, practices and knowledge; do conflict resolution between the new and previous set of practices, ideas and conduct it in social climate distinguished by the process of deliberating, collaborating, reflecting and trusting; have internal learning motivation then, the teachers undergo accommodative change. After these conditions were met, learning outcomes of teachers were sometimes progressive or accommodative and other times were conservative or transitional.

Collins and Waugh (2004) studied the receptivity of teachers to a proposed educational change system at schools. For this purpose, the independent variables that were measured were the secondary schools’ general beliefs, perceived practicality of the change, the perception that concerns and fears associated with change and perceived readiness in leaving primary school. It has been disclosed that receptivity had a moderately strong association (positive relationship) with the perceived practicality of the change and also, receptivity had a positive relationship with the perceived readiness.

Gupta (2005) studied “school principals’ attitude towards modernization, relationship with the organizational climate and their values”. It was disclosed that the government school principals and public-school principals have positive values. The attitude of government school principals and public-school principals is positive towards

the modernization. The government schools had a familiar kind of climate (organizational) and public schools possessed a controlled type of organizational climate.

Conley and Enomoto (2005) revealed that the routines at school were altered or changed by their management for addressing problems, for striving new targets, repair work. So, accordingly, the school management shifted the resources. The study revealed that these implementations of action routines restrict the response to the change of the organization.

Venkateshwarlu (2006) studied the teachers' changing role. The study revealed that qualitatively, the education is relied upon a teacher's quality. Also, this study disclosed that the teachers have to go through a lot of change if the schools have to survive and radical changes are to be made in education.

Vellaisamy (2007) studied "multimedia approach's effectiveness in science teaching at the upper primary school level". In this experimental study, application of the scientific approach in process teaching and learning was done by medium of elements of multimedia like images prepared in compact-disks, text, graphics, animation and sound. In pre-test as well as in post-test, the scientific attitude was also measured of the multimedia approach in teaching-learning process. The study disclosed that there's existence of a relationship (moderate, significant and positive) in-between the scientific attitude and the learning achievement.

Collinson (2008) conducted a research study named leading by learning, which gave new directions in this present twenty-first century. The study disclosed that the organizational learning with components of organizational values, political skills, capacity, ethics and intellect allows the school system leaders and members in building and influencing hospitable environment for collective learning, development of leadership and the organization's capacity.

Rout (2009) revealed in his research study that the genuine cause of teachers not using educational mass-media was due to their apathetic attitude towards it. They had a more positive attitude towards paper and pen. The schools utilizing programmes of viewing or listening media programme had a very casual attitude towards it.

Suryanarayana and Luciana (2010) revealed that the teacher's role efficiency, job satisfaction and change proneness are closely related to one another. Change proneness

might be a factor contributing to effectiveness in the classroom. The change proneness effects the teacher's attitude and interest.

Summons (2011) studied "teachers' change proneness in relation to the ideology of origin-pawn". This research was conducted on the degree college lecturer teachers. The study revealed that those teachers imbibing new ideas and believing in taking risks for the introduction of new strategies have a high attitude towards change proneness which can originate or generate new ideas. Therefore, they are termed as the 'origin'. Furthermore, those teachers having fear of criticism and who show total reluctance, shrink to imbibe, imitate and invite new teaching strategies blindly depending on the in-hand framework of rules of others are termed as the 'pawn'.

Raju (2012) focused on studying "the relationship between teacher motivation and change proneness among teachers of junior college". The study concluded that as whole, the teacher's change proneness inhabits a predominant position in process of teaching and learning. The change proneness with motivation improves the teaching techniques and is helpful in the teaching process.

Hota (2013) revealed that the change proneness of school teachers was at the high-level category classification. The female teachers' status was found to be higher for change proneness. The PGT teachers' status was found to be lower in change proneness.

Kaur (2013) studied "effectiveness of the school in relation to the secondary school principals' change proneness, communication skills and emotional intelligence". The doctoral research study's results disclosed that principals (secondary school) aren't differing in change proneness in the more effective schools as well as in less effective schools. Furthermore, it was disclosed that government principals (secondary school) aren't differing in change proneness in more effective schools as well in the less effective schools. It was also disclosed that government principals (secondary school) aren't differing in change proneness in the schools of Chandigarh (India) as well as in the schools of suburbs of Chandigarh (India). There was an insignificant and negative relationship in-between the government principals' (secondary school) change proneness and communication skills. Also, there was an insignificant relationship in-between the government principals' (secondary school) change proneness and school effectiveness.

Patel (2013) studied change proneness of school teachers. Revelations according to the framed objectives were that teachers (government school) were slightly not better comparatively to private counterparts in their change proneness. The trained teachers are not faintly finer in their change proneness comparatively to untrained counterparts. The teachers having age group above forty years have been found to be faintly not greater in their change proneness comparatively to the teachers falling in the age group of below forty years.

Raju (2013) conducted a study to find out the relationship between the degree college teachers' teacher motivation and change proneness. It has reported that there's an existence of difference (significant) in-between teachers based on gender; there's an existence of difference (significant) in-between urban teachers and rural teachers; there existed a significant difference between teachers having post-graduation with Ph.D. or M.Phil. and teachers having post-graduation degree; there's an existence of difference (significant) in-between readers and lecturers; there's an existence of difference (significant) in-between teachers above the age of forty years and teachers below the age of forty years; there existed a significant difference between teachers of private unaided type of institution and lecturers of government-aided type of institution; there's an existence of difference (significant) in-between science and humanities teachers in change proneness. Also, it was reported that there's an existence of relationship (significant and positive) in-between the change proneness and the teacher motivation.

Shrivastava (2013) studied "change proneness as a predictor of teacher effectiveness having special reference with respect to teachers of secondary schools". In the doctoral research study, it was disclosed that there's an existence of relationship (significant and positive) in-between the teacher effectiveness and the change proneness. The study found and revealed that the change proneness significantly predicts teacher effectiveness of female, male, urban, rural, average experienced and non-science teachers (secondary school).

Verma (2014) (a) studied "change proneness in urban and rural school teachers". This study reported that female school teachers and male school teachers differ insignificantly from each other in their change proneness. Also, study results reported that urban and rural teachers (school) are differing insignificantly from each other in their change proneness.

Verma (2014) (b) studied “change proneness with respect to the gender of higher secondary school teachers”. It has been disclosed that the gender of teachers (higher secondary school) had insignificant difference i.e. the male higher secondary school teachers and the female teachers (higher secondary school) aren’t differing significantly from each other in change proneness.

Padala (2014) examined “relationship of the college teacher lecturers’ change proneness and morale”. The findings of the study reported that the change proneness was influenced with respect to qualification; science and arts stream; marital status and dwelling background whereas it was also reported that the change proneness was not influenced with regards to their experience. Furthermore, it was disclosed that there’s an existence of a difference (significant) in-between the lecturer teachers in their change proneness concerning their qualification; science and arts stream; marital status; dwelling background and experience. Also, it was reported that there’s an existence of a relationship (positive, high and significant) in-between the change proneness and morale of study respondents. Lastly, it was disclosed that there’s an existence of a relationship (positive and significant) in-between intra and interrelationship among the lecturer teachers’ change proneness and morale.

Jain (2015) studied proneness to change of teachers in relation to open organizational climate and closed organizational climate. The findings study found that the prone teachers of open organizational climate had a positive relationship with teacher performance as compared to the prone teachers of closed organizational climate. Non-prone teachers of open organizational climate had a positive relationship with teacher performance as compared to the non-prone teachers of closed organizational climate.

Amalorpavamary and Velsamy (2016) conducted a study on lecturer teachers to examine the relationship between their morale and change proneness. It was disclosed that lecturer teachers’ change proneness aspects and morale aspects were inter-dependent.

Lathiya and Bhogayata (2016) studied “relationship between the change proneness and burnout of the secondary school principals”. It was disclosed that there’s an existence of relationship (significant) in-between the burnout and the change proneness of the secondary school principals.

Raju (2017) revealed that there's an existence of difference (significant) in-between teachers (secondary school) with regards to their gender; there existed significant differences between secondary school teachers concerning secondary grades and B.Ed. assistant; there existed significant differences between teachers (secondary school) with regards to their age in the category above and below 35 years of age and there existed no insignificant differences between teachers (secondary school) with regards to their experience in category of above fifteen-years in their change proneness. Also, it was revealed that in secondary school teachers, there existed a significant positive relationship between change proneness and teacher efficacy.

Sen and Sood (2018) performed research study on, "change proneness and professional commitment of secondary school teachers". It was disclosed that change proneness level of the secondary school teachers has significant and positive influence on the professional commitment dimensions. The change proneness level and gender of the secondary school teachers significantly interacted with the professional commitment of the secondary school teachers towards the society as well as towards the pupils.

Thien (2019) studied the change readiness, affective change commitment and functions of distributive leadership of teachers. The study disclosed that there's an existence of no relationship (direct and significant) in-between decision-making (participative) and commitment (affective) to change in teachers. Also, there's an existence of no relationship (direct and significant) in-between leadership team cooperation and commitment (affective) to change in teachers. Whereas, significant (not strong) impact of mediation was revealed in-between commitment (affective) to change in teachers and decision-making (participative) with the mediators (cognitive, intentional and emotional) of change readiness of teachers.

Hassan and Musa (2020) used two instruments namely "Teacher attitude towards change and Professional learning community" on a sample of teachers in Malaysia. This study analyzed relationship/association in-between teacher attitude towards change and the professional learning community. The study disclosed that there's an existence of negative as well as very weak (not strong) relationship in-between teacher attitude towards change and the professional learning community.

1.10 EARLY STUDIES OF TEACHER EFFECTIVENESS (DEPENDENT VARIABLE) WITH ADVERSITY QUOTIENT, ALIENATION AND CHANGE PRONENESS (INDEPENDENT VARIABLES)

Many studies have been done predicting the relationship of teacher effectiveness with various factors (intrinsic/ extrinsic). With regards to the studies between teacher effectiveness and adversity quotient, numerous research gaps have been found which further helps in establishing the need for carrying out the present study. Adversity quotient is the science of resilience in humans (Stoltz 1997, 2000). For teacher effectiveness, teachers' resilience is a necessary condition. The teachers are enabled to flourish, sustain and thrive their effectiveness by their resilience (Gu & Day, 2007). Rao and Kumar (2004) indicated that teacher effectiveness is an effective linkage of teacher performance and teacher competence with teacher goals' accomplishment. Teacher effectiveness is encompassed in teaching performance, knowledge and attitudes (Hunt et al., 2009). There's an existence of a relationship (significant) in-between teachers' adversity quotient and teaching performance (Bautista, 2015). Higher the school teacher's adversity quotient, higher is his /her teaching efficacy. Adversity quotient of school teachers has a significant explanation for their teaching efficacy (Hung, 2013). Adversity quotient of teachers is a positive significant predictor of their effective classroom management (Marashi & Fotoohi, 2017; Marashi & Naghibi, 2020).

Prasad (1996) revealed that there exists significant relationship between alienation and teacher effectiveness. High effective teachers in terms of scores have a significantly lower degree of alienation compared to low effective teachers. Prolonged experience of alienation may decrease teachers' teaching commitment. This in turn could foster isolation. If the teachers work in the bureaucratic schools, they are more likely to have alienation feelings (Dworkin et al., 2003). In excessive instances, the teachers can consider the teaching profession to be earning source for living instead of considering it an inherently honouring profession. This may result in their alienation (Wang, 2013). Tsang (2018) revealed that teachers may be suffering from alienation due to their experiences of teaching.

Shrivastava (2013) studied change proneness as a predictor of teacher effectiveness having special reference with respect to teachers of secondary schools. In the doctoral thesis, it has been found out that there is an existence of relationship (significant and positive) between teacher effectiveness and change proneness. It was

found that there is a relationship (significant) between change proneness and teacher effectiveness of the male teachers, female teachers, rural teachers, science teachers, non-science teachers, urban teachers, average experienced teachers, high experienced teachers. Insignificant differences were found in-between school teachers in change proneness with respect to the interaction effect of their gender and experience. The relationship intensity in-between the change proneness and teacher effectiveness was higher in urban teachers as compared to rural teachers; more in male teachers as compared to female teachers; more in science teachers as compared to non-science teachers; more in average experienced teachers as compared to low experienced teachers; more in average experienced teachers as compared to high experienced teachers; more in high experienced teachers as compared to low experienced teachers.

1.11 SIGNIFICANCE OF THE PROBLEM:

Effective teachers are the most essential forces contributing to the success of student achievement. Although community involvement, family involvement, reduced class size, curricula, district funding etc. contribute for the student achievement and improvement of school but still the most influential and essential driving force is an 'effective teacher'. Appointments of effective teachers are critically important for schools for improving their overall performance. This study is quite significant for knowledge and assessment of the role of teachers' adversity quotient, alienation and change proneness on their teacher effectiveness since there is a nascent need for the teachers in the present education system to be resilient, non-alienated and acceptable for innovativeness in the teaching-learning process for their effectiveness as a teacher.

Various studies have been conducted between teacher effectiveness and the factors predicting the same whether they are, intrinsic factors or extrinsic factors. When it comes to studies between teacher effectiveness and adversity quotient, various research gaps have been found which makes the study very significant in carrying out further. "Adversity quotient is the science of resilience in humans" (Stoltz 1997, 2000). For teacher effectiveness, teachers' resilience is a necessary condition. The teachers are enabled to flourish, sustain and thrive their effectiveness by their resilience (Gu & Day, 2007). Rao and Kumar (2004) indicated that teacher effectiveness is an effective linkage of teacher performance and teacher competence with teacher goals' accomplishment. Teacher effectiveness is encompassed in teaching performance, knowledge and attitudes (Hunt et al., 2009). There's an existence of a relationship (significant) in-between

teachers' adversity quotient and teaching performance (Bautista, 2015). Higher the school teacher's adversity quotient, higher is his /her teaching efficacy. Adversity quotient of school teachers has a significant explanation for their teaching efficacy (Hung, 2013). Adversity quotient of teachers is a positive significant predictor of their effective classroom management (Marashi & Fotoohi, 2017; Marashi & Naghibi, 2020). When it comes to studies conducted between adversity quotient and teacher effectiveness in the Indian context for teachers, not much work has been done. In the Indian context, various adversity quotient studies have conducted in the management field (Tripathi, 2011), telecom sector (Phoolka, 2014), banking sector (Shivaranjani, 2018) and on managers (Gudapati, 2005; Singh & Sharma, 2017). When it comes to the academics, studies have been conducted on students (Nikam & Uplane, 2013; Parvathy & Praseeda, 2014; Hema & Gupta, 2015; Singh & Kaur, 2015; Rathee & Sharma, 2018; Singh & Parveen, 2018; Tripathi, 2018), on prospective teachers (Ayyappan, 2013; Biswas, 2017) and on teachers (Priya, 2016). Keeping in view the above considerations and research gaps between adversity quotient and teacher effectiveness, the study was undertaken.

Alienation is being disconnected in an expected relationship or desired relationship (Case, 2008); It is the individual's feeling of having distrust toward society and other people (Mann, 2001); they are the feelings related to estrangement as well as isolation being buried and felt in a person because of problems related to society, institution/work or interpersonal problems (Seeman, 1959). The feelings of alienation results into creating a situation in which an individual starts to have feelings of being disconnected from himself/herself at work, from the social environment and at a personal level which is at unconscious level as well as the conscious level (Tolan, 1981). Various organisations of education hunt for means of the empowerment of their teachers but in some situations, obstacles are met in achieving the same due to repressive workplace environment. So, the novel and liberal-progressive exercises adopted by the teachers which are supposedly the steering units in moving the education ahead would be ineffectual unless teacher labour circumstances bending them backwards is resolved and addressed.

For purview of this study, the oppressive aspects in the teaching field resulting in a sense of disconnection termed as 'alienation' in teachers affecting their effectiveness needs to be studied further. Prasad (1996) disclosed that there's existence of relationship (significant) in-between alienation and teacher effectiveness. High effective teachers in

terms of scores have a significantly lower degree of alienation compared to low effective teachers. Prolonged experience of alienation may decrease teachers' teaching commitment. This in turn could foster isolation. If the teachers work in the bureaucratic schools, they are more likely to have alienation feelings (Dworkin et al., 2003). In excessive instances, the teachers can consider the teaching profession to be earning source for living instead of considering it an inherently honouring profession. This may result in their alienation (Wang, 2013). Tsang (2018) revealed that teachers may be suffering from alienation due to their experiences of teaching. Keeping in view the above considerations and research gaps between alienation and teacher effectiveness, the study was undertaken. The present study identifies factors of alienation within the teachers, information about the status of the alienation in teachers and role of alienation on teacher effectiveness which would help in future, the decision-makers in the procedures of educational policy and in taking steps concerning the general conditions of work affecting well-being of teachers, overall teacher agencies, teacher empowerment, teacher effectiveness etc.

Change proneness in a teacher is meant to be the readiness or inclination the teachers have to alter or change their thoughts, attitudes, behaviour and feelings by not restraining themselves towards rigidity but towards having flexibility resulting into success or sometimes into criticism. In the Indian context, various constructs have been studied with respect to teachers' change proneness viz. school effectiveness (Kaur, 2013), origin-pawn ideology (Raju, 2012), teacher motivation (Raju, 2013), work motivation (Verma, 2014) and morale (Padala, 2014; Amalopravamary & Velsamy, 2016). When it comes to studies between teacher effectiveness and change proneness, various research gaps have been found. Shrivastava (2013) studied "change proneness as a predictor of teacher effectiveness having special reference with respect to teachers of secondary schools". In the doctoral research study, it was disclosed that there's an existence of relationship (significant and positive) in-between the teacher effectiveness and the change proneness. This study found that change proneness predicts significantly teacher effectiveness concerning gender, the experience of teachers of secondary school. Keeping in view the above considerations and research gaps between change proneness and teacher effectiveness, this study was very significant in carrying out further.

The study will be of much help in different ways to the teachers, educational policymakers and other various stakeholders of education. This study will be a help in

knowing how far teachers are equipped and trained to cope with the challenges in the modern education system for their success as an effective teacher. Teacher educators can teach and reinforce positive skill sets and utilize collaborative and cooperative learning activities to promote displays of being an effective teacher among teachers by understanding the role of adversity quotient, alienation and change proneness on teacher effectiveness. This study will help in the development of teacher education curriculum to plan and initiate topics associated to life skills which would coach the teachers to victoriously face the demanding circumstances of life. This would be in consonance with the government initiated digital India movement.

The present study developed, modified and validated scales on adversity quotient and alienation. The academicians can easily depend and rely on these scales which are quite specific to their domains for the purpose of measuring the levels of resilience towards adversities among teachers and to measure the teachers' feeling of being aloof at school and in society. Also, the scales will help school administrators and authorities to explore and identify performance gaps of teachers by assessing the scores on each domain and component of adversity quotient and alienation.

It will provide useful guidance for practitioners and highlight areas for future research, such as the need for investigating the distinction between short-term and long-term behavioural change for teachers and exploring techniques that encourage the adoption of new technologies for teacher effectiveness. The present study is quite significant because it would further lead to future researches investigating effectiveness in teachers and also, the related and influencing factors in India. By considering the essence of effectiveness in teachers and the influencing factors, various attempts can be made for the development of a new system for assessment of the teacher performance. This study will be stimulating the bodies of academia in planning the programs of teacher education in a better and effective manner, which would certainly be providing the database for bringing changes in the modes of the transaction with evaluation including training period duration, the current syllabi and so on. The research findings in this study will also be helping the faculty and the administrations of the B.Ed./M.Ed. colleges/universities to bring essential alterations to the programme of teacher education. Government, private and other organizations engaging in teacher education can benefit from the present study's conclusions for further planning of programmes for boosting and enhancing effectiveness in teachers thereby ensuring the basic quality of the education. The results

of this research will be quite essential and profound for the Education Ministry, educational policymakers, especially, organizations of national level such as the National Assessment and Accreditation Council (NAAC), “National Council of Educational Research and Training (NCERT), National Council for Teacher Education (NCTE)” etc. for undoubtedly bringing desired and appropriate changes in these programmes by understanding the teachers’ adversity quotient, alienation and change proneness and their role on effectiveness in teachers.

1.12 STATEMENT OF THE PROBLEM:

This study is stated as:

“TEACHER EFFECTIVENESS: ROLE OF ADVERSITY QUOTIENT, ALIENATION AND CHANGE PRONENESS”

1.13 OPERATIONAL DEFINITIONS OF THE TERMS:

- *Teacher effectiveness:*

Teacher effectiveness is the teachers’ attainment of the needed competence in their roles and functions in the areas of preparation for teaching and planning, classroom management, knowledge of the subject-matter; its delivery and presentation including blackboard summary, teacher characteristics and interpersonal relations (Kulsum, 2011). In its operational term, teacher effectiveness refers to the scores of secondary school teachers on teacher effectiveness scale by Kulsum (2011) perceived by teachers.

- *Teachers:*

In operational terms, the teachers have been referred to secondary school teachers in the present study.

- *Adversity quotient:*

Adversity quotient is the science of resilience in humans. An individual having high level of adversity quotient has the ability to keep going ahead despite the obstacles or disadvantages faced. He or she exhibits resilient behaviour. But, the person with a low level of adversity quotient tends to easily quit and allows tough times to wear and bring down their performance, spirit and energy (Stoltz, 1997). The factors that makeup adversity quotient are control, reach, ownership and endurance (Stoltz 1997, 2000). In its operational term, adversity quotient refers to the scores of secondary school teachers on the adversity quotient scale developed by the investigator.

- *Alienation:*

Alienation is a psychological state in which an individual develops a sense of loss of relationship with others and feels relatively estranged, having lack of power, socially isolated, apartness, anomie, having lack of meaning, cynicism and dissatisfaction (Seeman, 1959). The factors that makeup alienation are social isolation, cultural estrangement and work alienation (Seeman 1959, Blauner, 1964; Mottaz, 1981; Seeman, 1991; Lacourse et al., 2003; Mendoza & Lara, 2007; Ojha, 2010; Chiaburu et al., 2013; Shantz et al., 2015; Nuran, 2018). In its operational term, alienation refers to the scores of secondary school teachers on alienation scale modified by the investigator using the alienation scale by Ojha (2010).

- *Change Proneness:*

Change Proneness is meant to be the readiness or inclination people have to alter or change their thoughts, attitudes, behaviour and feelings by not restraining themselves towards rigidity but towards having flexibility (Mukhopadhyay, 1980). In its operational term, change proneness refers to the scores of secondary school teachers on change proneness inventory by Mukhopadhyay (2012) perceived by teachers.

1.14 OBJECTIVES:

1. To study the levels of teacher effectiveness, adversity quotient, alienation and change proneness among teachers.
2. To find the difference in teacher effectiveness, adversity quotient, alienation and change proneness of teachers with respect to type of school, gender and experience.
3. To study the relationship of teacher effectiveness with adversity quotient, alienation and change proneness of teachers.
4. To study the role of adversity quotient, alienation and change proneness on teacher effectiveness of teachers.

1.15 HYPOTHESES:

I. There exists no significant difference in teacher effectiveness, adversity quotient, alienation and change proneness of teachers with respect to type of school, gender and experience.

H_{01.1} There exists no significant difference in teacher effectiveness of teachers with respect to type of school.

H_{01.2} There exists no significant difference in teacher effectiveness of teachers with respect to gender.

H_{01.3} There exists no significant difference in teacher effectiveness of teachers with respect to experience.

H_{01.4} There exists no significant interaction effect of type of school and gender on teacher effectiveness of teachers.

H_{01.5} There exists no significant interaction effect of type of school and experience on teacher effectiveness of teachers.

H_{01.6} There exists no significant interaction effect of gender and experience on teacher effectiveness of teachers.

H_{01.7} There exists no significant interaction effect of type of school, gender and experience on teacher effectiveness of teachers.

H_{01.8} There exists no significant difference in adversity quotient of teachers with respect to type of school.

H_{01.9} There exists no significant difference in adversity quotient of teachers with respect to gender.

H_{01.10} There exists no significant difference in adversity quotient of teachers with respect to experience.

H_{01.11} There exists no significant interaction effect of type of school and gender on adversity quotient of teachers.

H_{01.12} There exists no significant interaction effect of type of school and experience on adversity quotient of teachers.

H0_{1.13} There exists no significant interaction effect of gender and experience on adversity quotient of teachers.

H0_{1.14} There exists no significant interaction effect of type of school, gender and experience on adversity quotient of teachers.

H0_{1.15} There exists no significant difference in alienation of teachers with respect to type of school.

H0_{1.16} There exists no significant difference in alienation of teachers with respect to gender.

H0_{1.17} There exists no significant difference in alienation of teachers with respect to experience.

H0_{1.18} There exists no significant interaction effect of type of school and gender on alienation of teachers.

H0_{1.19} There exists no significant interaction effect of type of school and experience on alienation of teachers.

H0_{1.20} There exists no significant interaction effect of gender and experience on alienation of teachers.

H0_{1.21} There exists no significant interaction effect of type of school, gender and experience on alienation of teachers.

H0_{1.22} There exists no significant difference in change proneness of teachers with respect to type of school.

H0_{1.23} There exists no significant difference in change proneness of teachers with respect to gender.

H0_{1.24} There exists no significant difference in change proneness of teachers with respect to experience.

H0_{1.25} There exists no significant interaction effect of type of school and gender on change proneness of teachers.

H0_{1.26} There exists no significant interaction effect of type of school and experience on change proneness of teachers.

H0_{1.27} There exists no significant interaction effect of gender and experience on change proneness of teachers.

H0_{1.28} There exists no significant interaction effect of type of school, gender and experience on change proneness of teachers.

II. There exists no significant relationship of teacher effectiveness with adversity quotient, alienation, change proneness of teachers.

H0_{II.1} There exists no significant relationship of teacher effectiveness with adversity quotient of teachers.

H0_{II.2} There exists no significant relationship of teacher effectiveness with alienation of teachers.

H0_{II.3} There exists no significant relationship of teacher effectiveness with change proneness of teachers.

III. There is no role of adversity quotient, alienation, change proneness on teacher effectiveness of teachers.

1.16 DELIMITATIONS:

- Keeping in view this study's resource paucity, it has been delimited to the districts of three regions of the state of Punjab (India) namely Doaba region: Hoshiarpur district, Jalandhar District; Majha region: Amritsar district and Gurdaspur district; Malwa region: Ludhiana district and Patiala district.
- The sample of the respondents of present study is confined to secondary school teachers only teaching in the private schools and the government schools.

1.17 OUTLINE OF THE THESIS:

The first chapter of the present study portrays the background of the study. This chapter introduces the dependent variable teacher effectiveness and the independent variables adversity quotient, alienation, change proneness. Their conceptual and theoretical framework have been explained. The literature-review of teacher

effectiveness, adversity quotient, alienation, change proneness is documented in the same chapter. The “significance and statement of the problem, operational definitions of the terms, objectives, hypotheses and delimitations of the study” have been presented in this chapter.

The second chapter outlines the method and procedure of the present study. This chapter includes the description of the sampling frame and the tools applied in this study to assess “adversity quotient, alienation, change proneness and teacher effectiveness” of the teachers (secondary school). Statistical methods and the procedures employed for the validity and reliability of the measurement tools have been described in detail. Also, the description of the “procedure of data collection, research design of the study and description of statistical techniques for data analysis” has been presented in this chapter.

The third chapter reports the analytical tests and their findings for descriptive analysis, comparative analysis, correlation analysis and regression analysis employed on the teacher effectiveness, adversity quotient, alienation, change proneness of the teachers (secondary school) on the basis of the objectives and hypotheses framed in this study. The findings of each calculated result is discussed with supportive findings based on review of related literature.

The fourth chapter of this study reports findings of data analysis, discusses conclusions, implications and recommendations with respect to each objective framed in the study. Also, the present study’s limitations along with directions for future research have been pointed out in this chapter.

CHAPTER II

METHOD AND PROCEDURE

The chapter of method and procedure deals comprises of the method of the study which entails the sample and its frame, design of the study, procedure, tool selection, tool validation and the various statistical techniques applied for the purpose of analysis of the data.

2.1 POPULATION/ SAMPLING FRAME:

The study has been conducted on secondary school teachers of “Private and Government schools” of Majha, Doaba and Malwa regions of Punjab. The total population of Punjab is 2,77,43,338 as of 2011 (Government of Punjab Official Census Data, 2016). The total number of the secondary school teachers in Punjab are 1,68,914 as of 2015-2016 (Government of Punjab Official Census Data, 2016). The distribution of population district-wise in each region of Punjab has been presented below in the following table no. 2.1.

TABLE 2.1
TOTAL DISTRIBUTION OF POPULATION IN DISTRICTS FROM EACH REGION OF PUNJAB

Majha	Population	Doaba	Population	Malwa	Population
Gurdaspur	1621725	Kapurthala	815168	Rupnagar	684627
Pathankot	676598	Jalandhar	2193590	S.A.S. Nagar	994628
Amritsar	2490656	S.B.S Nagar	612310	Ludhiana	3498739
Tarn Taran Sahib	1119627	Hoshiarpur	1586625	Ferozpur	1002874
				Fazilka	1002874
				Faridkot	617508
				Shri Muktsar Sahib	901896
				Moga	995746
				Bathinda	1388525
				Mansa	769751
				Sangrur	1655169
				Barnala	595527
				Patiala	1895686
				Fatehgarh Sahib	600163

The distribution of population of secondary school teachers district-wise in each region of Punjab has been presented below in the following table 2.2.

TABLE 2.2
TOTAL POPULATION DISTRIBUTION OF SECONDARY SCHOOL
TEACHERS IN DISTRICTS FROM EACH REGION OF PUNJAB

Majha	Population	Doaba	Population	Malwa	Population
Gurdaspur	9848	Kapurthala	5698	Rupnagar	3829
Pathankot	4102	Jalandhar	12546	S.A.S. Nagar	6578
Amritsar	14167	S.B.S Nagar	3560	Ludhiana	24844
Tarn Taran Sahib	5149	Hoshiarpur	9949	Firozpur	5099
				Fazilka	5112
				Faridkot	3635
				Shri Muktsar Sahib	5246
				Moga	5877
				Bathinda	8125
				Mansa	4284
				Sangrur	10549
				Barnala	3952
				Patiala	12927
				Fatehgarh Sahib	3838

2.2 SAMPLE:

In the present study, researcher used purposive sampling technique for selecting the districts from each region of Punjab by putting into consideration of factors viz. choosing the districts from each region having the highest population, highest number of schools and the highest number of teachers in each region with an additional constraint of literacy rate above 75% (Government of Punjab Official Census Data, 2016). The total literacy rate of Punjab is 75.8% (2,10,29,450). The percentage of literacy rate of the districts, Amritsar (19,00,371); Gurdaspur (12,64,946); Hoshiarpur (13,42,285); Jalandhar (18,09,712); Ludhiana (28,75,963)

and Patiala (14,27,452) are 76.3%, 78.0%, 84.6%, 82.5%, 82.2% and 75.3% respectively.

The distribution of district-wise percentage literacy rate in each region of Punjab has been presented in the following table 2.2.1.

TABLE 2.2.1
DISTRICT-WISE PERCENTAGE LITERACY RATE OF
POPULATION IN EACH REGION OF PUNJAB

Majha	Literacy	Doaba	Literacy	Malwa	Literacy
Gurdaspur	78.0	Kapurthala	79.1	Rupnagar	82.2
Pathankot	84.6	Jalandhar	82.5	S.A.S. Nagar	83.8
Amritsar	76.3	S.B.S Nagar	79.8	Ludhiana	82.2
Tarn Taran Sahib	67.8	Hoshiarpur	84.6	Ferozpur	68.9
				Fazilka	68.9
				Faridkot	69.6
				Shri Muktsar	65.8
				Moga	70.9
				Bathinda	68.3
				Mansa	61.8
				Sangrur	68.0
				Barnala	67.8
				Patiala	75.3
				Fatehgarh Sahib	79.4
Punjab					75.8

Therefore, taking into account all these factors, two districts from Majha region (Amritsar and Gurdaspur); two districts from Doaba region (Hoshiarpur and Jalandhar) and two districts from Malwa region (Ludhiana and Patiala) of Punjab (India) have been selected which constitute 50% (49.9%; n=84281) secondary school teacher population of Punjab.

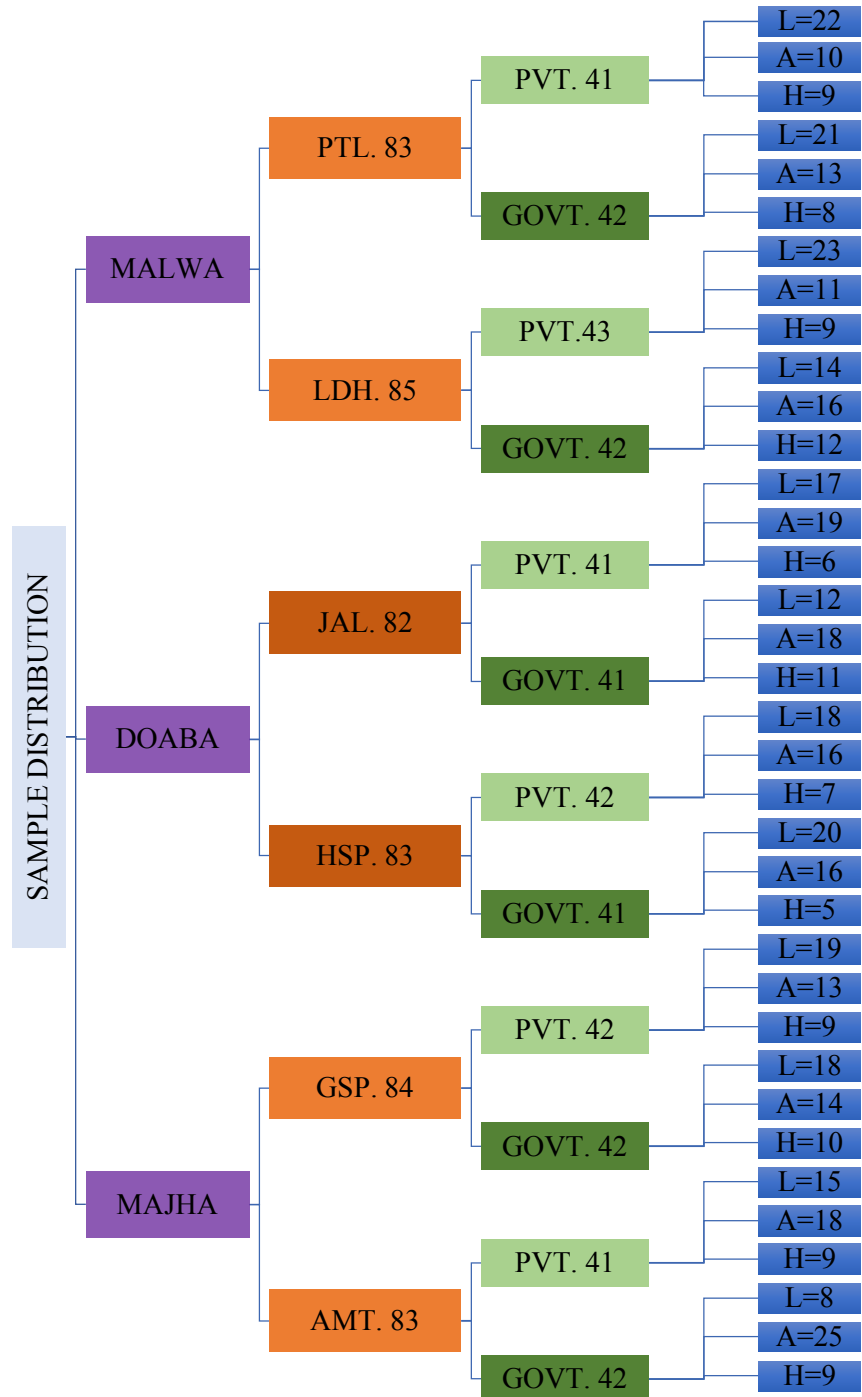
The school selection from the selected districts of each region of Punjab was done through purposive sampling technique wherein only those schools were to be chosen where teachers from all categories of experience i.e. low (less than five years of experience), average (five to ten years of experience) and high (more than ten years of experience) respectively would be available. Due to hesitation of some teachers to fill data, the researcher had to proceed with convenient sampling for selection of teachers from the selected schools.

Ahuja (2014) pointed out that in situations of research when there is non-availability of an appropriate respondents list then choosing the probability sampling is inappropriate and difficult. The researchers can choose the sample of their study as per their convenience as several study respondents deny to answer, many study respondents return an incomplete questionnaire or don't even return them, numerous study respondents don't cooperate (Panneerselvam, 2011).

The number of secondary school teachers to be part of the sample was calculated. The population of the study is such that the total number of secondary school teachers are 1,68,914. By consideration of the target population for the selection of reasonable sample for the representation of the teachers' population, online sample size calculator was used. The sample size was calculated with the consideration of the 95% confidence level with a 5% margin of error. The estimated valid size of the sample came out to be 384 which was sufficient for the representation of the secondary school teachers' population of Punjab (India). For collecting the data related to the study purpose, the six hundred and four teachers were personally contacted by the investigator which was adequately greater than the calculated three hundred and eighty four sample size. Few of the teachers didn't respond and few teachers returned incomplete forms so as recommended by Hair et al. (2010), after its removal (fifty six) and the data cleaning process (forty eight), the remaining sample came out to be five hundred secondary school teachers.

The total sample distribution from selected districts of each region of Punjab has been presented below in flowchart figure 2.1.

FIGURE 2.1
TOTAL SAMPLE DISTRIBUTION FROM DISTRICTS OF EACH REGION
OF PUNJAB



Note: PTL.= Patiala, LDH.= Ludhiana, JAL.= Jalandhar, HSP.= Hoshiarpur, GSP.= Gurdaspur, AMT.= Amritsar; PVT.= Private, GOVT.= Government; L= Low Experience (<5 years), A= Average Experience (5-10 years), H= High Experience (>10 years).

The following table 2.3 gives an account of brief description of the sample with respect to, “Type of school, Gender and Experience”.

TABLE 2.3
**SAMPLE PROFILE WITH RESPECT TO “TYPE OF SCHOOL,
GENDER AND EXPERIENCE”**

Type of School	Gender	Experience	N
Private	Female	Low	51
		Average	45
		High	29
		Total	125
	Male	Low	52
		Average	47
		High	26
		Total	125
	Total	Low	103
		Average	92
		High	55
		Total	250
Government	Female	Low	61
		Average	39
		High	25
		Total	125
	Male	Low	43
		Average	58
		High	24
		Total	125
	Total	Low	104
		Average	97
		High	49
		Total	250
Total	Female	Low	112
		Average	84
		High	54
		Total	250
	Male	Low	95
		Average	105
		High	50
		Total	250
	Total	Low	207
		Average	189
		High	104
		Total	500

Note: “Low= Less than five years of experience, Average= Five to ten years of experience, High= More than ten years of experience”

2.2.1 PROCEDURE:

For collecting the data related to the study purpose, the teachers were personally contacted. A formal ethical approval for data collection from the recognized authority of schools was sought with assurance of anonymity of the respondents. The study's purpose and procedure was explained to the respective teacher respondents as well as to the principal/higher authority of the respective schools. The teacher respondents of each school manually filled-up the questionnaires. Their responses were further scored for the data analysis of this study.

2.3 TOOLS:

Tools used for data collection in this present consisted of four separate instruments of the survey. For data collection and analyses quantitatively, there are various research measurements/instruments and methods available for collection of information through the study respondents on constructs that are designated. For a particular research study, selecting tools/tests have the basis on required and appropriate criteria such as researcher's competence, nature of objectives, tools' appropriateness, sample type, time feasibility, etc. By keeping forth these criteria in mind, the researcher utilized the following various instruments of research for measuring the constructs of research.

- Adversity Quotient Scale
- Alienation Scale
- Change Proneness Inventory
- Teacher Effectiveness Scale

The following are the details of the four research instruments utilised by the investigator in this study:

2.4 DESCRIPTION OF ADVERSITY QUOTIENT SCALE:

It is stated by Stoltz (1997) who minted the term adversity quotient that it is the science of resilience in humans. An individual having high level of adversity quotient has the ability to keep going ahead despite the obstacles or disadvantages faced. He or she exhibits resilient behaviour. But, the person with a low level of adversity quotient tends to easily quit and allows tough times to wear and bring down

their performance, spirit and energy. The dimensions that makeup adversity quotient are control, reach, ownership and endurance (Stoltz 1997, 2000). Control refers to how much control a person has over the adversities faced. Reach refers to the extent to which a problem is affecting other areas of the person's life like work life and home life. Ownership and endurance refers to the willingness of a person in assuming responsibility or accountability and take the required measures considering how much longer the problem and the problem's effects last.

The adversity quotient scale has been developed and standardized by researcher to measure the personal attitudes, feelings and beliefs of teachers of secondary schools towards adversities faced by them. The scale development and validation was done by using highly valid and reliable procedures of scale development. This scale has twenty-items related to three dimensions of adversity quotient. The Adversity quotient scale's procedure of development and validation is given below in the following sequence.

2.4.1 METHOD:

An approach of scale development was taken up for the development of an instrument that adequately does the measurement of the perceptions or feelings of adversity quotient. These procedures are, definition and specification of the measured construct; generation of a pool of items; providing and consideration of the experts' study on the initial pool of items; scale refinement; scale validation; scale items' evaluation (Netemeyer et al., 2003; DeVellis, 2016; Wymer & Alves, 2012).

2.4.2 SCALE CONSTRUCTION AND PSYCHOMETRIC ANALYSIS:

In the present study, the technique of summated evaluation as suggested by Likert (1932) is used for developing the "Adversity Quotient Scale". Hence, the method of scoring the present adversity quotient five-point Likert scale for positive statements is, "Strongly Agree = 5, Agree = 4, Undecided = 3, Disagree = 2 and Strongly Disagree = 1". On the other hand, for the negative statements, the method of scoring is in the vice-versa sequence. The total score calculated will be indicating the raw score for measurement of the level of adversity quotient among teachers.

Therefore, a higher score on adversity quotient measurement will interpret that the teachers have a higher level of adversity quotient and vice-versa.

2.4.3 CONTENT VALIDITY:

After the preparation of the pool of items, validity (content/face) has been qualitatively as well as quantitatively carried out involving fifteen experts holding doctoral degrees in the fields of education, social sciences, management and psychology by requesting them to give their feedback and suggestions on the appropriateness of all the statements. Item construction's general procedure is expert judgement (Netemeyer et al., 2003; DeVellis, 2016). For the qualitative analysis and quantitative analysis of the scale, formulation of thirty statements was done and these entire statements were submitted to the content experts for expert validity. Criteria for qualitative assessment's outline was made and all comments of the experts were analysed and then accordingly appropriate modifications were done for improvement of the scale's overall quality. For the quantitative assessment, experts of subjects were requested to mark the appropriateness of each statement by putting tick mark against each item wherein marking under "1 meant Not essential, 2 meant Not essential but useful and 3 meant Essential". Table 2.4 shows the quantitative assessment outline of items of the scale.

TABLE 2.4
EXAMPLE OF QUANTITATIVE ASSESSMENT

Note: 1= Not essential, 2= Not essential but useful and 3= Essential			
STATEMENT	1	2	3
1. I cannot prioritize my job role out of teaching and non-teaching work.	—	—	—

After combining all the tools of assessment by all experts as one tool of assessment, the determination of the cases where the numbers of experts have given approval for each possible option of the statements was carried out. After this process, the calculation of the content validity rate (CVR) for each item considering the formula suggested by Veneziano and Hooper (1997) and Yurdagul (2005) was done. The formula is $CVR = (Ne/(N/2))-1$; where CVR= Content Validity Rates, Ne= Number of the experts marking essential and N= Total number of the experts. Table

2.5 is highlighting the item-wise content validity calculations of CVR for the adversity quotient scale.

TABLE 2.5
CONTENT VALIDITY FOR ADVERSITY QUOTIENT SCALE

Item No.	CVR	Remark	Item No.	CVR	Remark
ITEM- 1	0.87	Accepted	ITEM- 2	0.07	Rejected
ITEM- 3	0.87	Accepted	ITEM- 4	0.87	Accepted
ITEM- 5	-0.07	Rejected	ITEM- 6	0.87	Accepted
ITEM- 7	0.87	Accepted	ITEM- 8	0.87	Accepted
ITEM- 9	0.20	Rejected	ITEM- 10	0.87	Accepted
ITEM- 11	1.00	Accepted	ITEM- 12	0.20	Rejected
ITEM- 13	0.87	Accepted	ITEM- 14	0.87	Accepted
ITEM- 15	0.47	Rejected	ITEM- 16	0.87	Accepted
ITEM- 17	0.87	Accepted	ITEM- 18	0.87	Accepted
ITEM- 19	-0.07	Rejected	ITEM- 20	0.87	Accepted
ITEM- 21	-0.2	Rejected	ITEM- 22	0.20	Rejected
ITEM- 23	0.87	Accepted	ITEM- 24	0.87	Accepted
ITEM- 25	0.87	Accepted	ITEM- 26	0.87	Accepted
ITEM- 27	0.87	Accepted	ITEM- 28	0.87	Accepted
ITEM- 29	0.20	Rejected	ITEM- 30	0.07	Rejected

Note: "Retained items obtained CVR value at or above 0.87 in this assessment".

Calculation of the content validity based on fifteen expert opinions of the adversity quotient scale was analysed. The item with the CVR values beneath the content validity criterion was omitted from the final scale. The minimum value of CVR as per the expert opinion number (Veneziano & Hooper, 1997) for fifteen experts is 0.49. The retained items of the scale have CVR value above the threshold in this assessment. The quantitative views of the expert were analysed and ten items were omitted and further twenty items were retained for performing the item analysis.

2.4.4 ITEM ANALYSIS:

For the purpose of carrying out item analysis of the adversity quotient scale, the total scores of “Adversity Quotient” of all teachers were arranged in increasing order and twenty seven percent was selected from both the ends (Kelley, 1939) i.e. “High group and Low group”. The calculation of the t-test was done for finding out whether the high and low groups are differing from each item of the adversity quotient scale. After observation of the t- ratios, all the items were retained having t-value greater or equal to the threshold value of 2.61 (Garrett & Woodworth, 2007). The item analysis’s results are displayed in table 2.6.

TABLE 2.6

t-VALUE FOR VARIOUS ITEMS OF THE ADVERSITY QUOTIENT SCALE

·ITEM NO.	‘t’ VALUE	·ITEM NO.	‘t’ VALUE
ITEM- 1	8.288**	ITEM- 2	10.563**
ITEM- 3	7.726**	ITEM- 4	8.746**
ITEM- 5	23.227**	ITEM- 6	7.867**
ITEM- 7	7.124**	ITEM- 8	6.266**
ITEM- 9	7.968**	ITEM- 10	18.328**
ITEM- 11	13.400**	ITEM- 12	13.613**
ITEM- 13	6.388**	ITEM- 14	8.533**
ITEM- 15	10.335**	ITEM- 16	8.579**
ITEM- 17	8.336**	ITEM- 18	8.542**
ITEM- 19	7.766**	ITEM- 20	9.889**

**Significant at 0.05 Level

Note: t-values are above 2.61 threshold value (Garrett & Woodworth, 2007);

N=Number of individuals

2.4.5 EXPLORATORY FACTOR ANALYSIS:

After item analysis, items of adversity quotient scale were subjected to the test of K.M.O. (Kaiser-Meyer-Olkin) and Bartlett’s Sphericity Test for determining whether the twenty-item scale of adversity quotient fits the factor analysis or not. Subsequently, then, various series of factor analysis’ iterative cycles were carried out on the data set. After each iteration, the numbers of elements extracted as well as the overall variance explained was inspected. The K.M.O. value came out to be 0.9,

which determines whether the sampling size and data are suitable and sufficient for the analysis.

Bartlett’s Sphericity Test was carried out for checking if the data comes from a normal distribution (multi-variate) and result came out to be significant (Sig=.000, $p < .01$). It is required that the result of Bartlett’s Sphericity Test must be significant statistically ($p < .01$). The Kaiser-Meyer-Olkin measurement test result must be either above or equal to 0.60 (Tabachnick & Fidell, 1996). As the obtained values through the overhead referred analysis is fitting the hypothesis (basic) at a good level so, the factor analysis can be carried out (Kothari & Garg, 2014).

TABLE 2.7
KMO AND BARTLETT’S TEST OF SPHERICITY

·Kaiser- Meyer-Olkin Measure (KMO) of Sampling Adequacy	·Bartlett’s Test of Sphericity (BTS)	
	·Approx. Chi-Square	·Sig.
0.9	4529.627	.000

Note: “KMO value is above 0.60 and p-value of Bartlett’s test of Sphericity is less than 0.01. So, further factor analysis can be carried out (Kothari & Garg, 2014)”.

As the factor loadings show the correlation between the main structure and the item to be measured therefore, the examination of the relevant factors appearing due to the analysis (basic component) and factor loading was done. Henceforth these process of analysis, the end form of the “Adversity Quotient Scale” was put forth with twenty items. By the varimax method, the “Rotated Components Matrix” was converted due to E.F.A. and has been presented in the table no. 2.8. Vertical rotating method of the varimax method has been used for ensuring that the variances of the factors will have a higher value with few number of variables.

The E.F.A puts forth a three-factor structure with factor control with six items, factor ownership and endurance with ten items and factor reach with four items,

explaining 77.173% of the variance (Acceptable variance is 50%; Streiner, 1994). All the items have loadings above the 0.40 threshold value (Hair et al., 2010). Table 2.8 is displaying each item number with its respective factor loading of the adversity quotient scale.

TABLE 2.8
RESULTS OF THE EXPLORATORY FACTOR ANALYSIS OF THE
ADVERSITY QUOTIENT SCALE

CONTROL		OWNERSHIP AND ENDURANCE		REACH	
FACTOR ITEMS	FACTOR LOADINGS	FACTOR ITEMS	FACTOR LOADINGS	FACTOR ITEMS	FACTOR LOADINGS
ITEM- 2	0.797	ITEM- 1	0.918	ITEM- 4	0.882
ITEM- 5	0.865	ITEM- 3	0.891	ITEM- 8	0.853
ITEM- 10	0.807	ITEM- 6	0.883	ITEM- 18	0.764
ITEM- 11	0.735	ITEM- 7	0.854	ITEM- 20	0.817
ITEM- 13	0.799	ITEM- 9	0.870		
ITEM- 15	0.716	ITEM- 12	0.843		
		ITEM- 14	0.896		
		ITEM- 16	0.884		
		ITEM- 17	0.865		
		ITEM- 19	0.868		

Note: “All the factor loadings are above the acceptable value of 0.40 (Hair et al., 2010)”.

2.4.6 CONFIRMATORY FACTOR ANALYSIS:

The application of C.F.A. (Confirmatory Factor Analysis) was done using IBM AMOS-23 to the three factors which were extracted after the E.F.A. (Exploratory Factor Analysis). Structure of the “Adversity Quotient Scale” constitutes twenty items having three factors and it was tested using the C.F.A. The C.F.A. as stated by Jöreskog and Sorbom (1979) is structural equation modeling’s distinct case also known as to be the relationship model (linear structural). The E.F.A. only gives the dimensionality idea but the C.F.A. emphasizes on the fact that if a factor model

which is hypothesized fits or doesn't fit the said data set. Therefore, as the name implies, "the C.F.A is a technique which is universally accepted to confirm dimensionality (Floyd & Widaman, 1995; Netemeyer et al., 2003). Consequently, an improved Confirmatory Factor Analysis run sequence was conducted and the resultant outcomes of the statistics for the fit indices are presented in table 2.9.

TABLE 2.9 MEASUREMENT MODEL GOODNESS OF FIT OF ADVERSITY QUOTIENT SCALE

Measure Fit	Fit Indices	Measure Standard
Incremental Fit Index (IFI)	0.929	The value over 0.90 is a good fit (Bollen, 1989; Hair et al., 2006).
Root Mean Square Error of Approximation	0.09	The values from .05 to .10 suggest acceptable fit (Browne & Cudeck, 1992; MacCallum et al., 1996). Same range reported by (Fryer et al., 2014; Kashdan et al., 2014; Sellbom et al., 2014; Tran et al., 2014; Kim & Shute, 2015; Fabio & Gori, 2016; Lloyd et al., 2017).
Comparative Fit Index (CFI)	0.929	The values above 0.90 gives evidence of a good fit (Hair et al., 2006; Hair et al., 2010; Kline, 2015; Schumacker & Lomax, 2016).
Normed Fit Index (NFI)	0.918	The values above 0.90 indicates good fit (Bollen, 1989; Hair et al., 2006; Kline, 2015)
Goodness of Fit Index (GFI)	0.854	The value is acceptable if above 0.8 (Doll et al., 1994; Baumgartner & Homburg, 1995). Reported by (Hair et al., 2006; Cheng, 2011; Kim et al., 2016; Wong & Carlback, 2018).
Tucker- Lewis Index (TLI)	0.918	TLI ranging from 0.85 and over 0.9 is a good fit (Bentler & Bonett, 1980; Sharma et al., 2005; Hair et al., 2006; Kline, 2015).

Note: When 3-4 indices in a model pass the minimum requirement, the model is considered as fit (Hair et al., 2010). If the fit indices in the majority are above the threshold values, the conclusion can be given that the theoretical model is supported by data (Schumacker & Lomax, 2016).

The "GFI and CFI" indices standard values should be in-between 0 and 1 though, in the review of related-literature there are varying views on these values. Whereas also, Hair et al. (2010) suggested that, the value of CFI > 0.85 is acceptable and the value of CFI > 0.90 is considered a better fit (p. 647). If CFI is above 0.90 then this gives evidence of a good fit (Schumacker & Lomax, 2016). Additionally, various studies by Gay et al. (2010) and Mahne and Huxhold (2014).

The most widely used cutoffs for RMSEA yield the following interpretations: (a) Values less than .05 (Browne & Cudeck, 1992) or .06 (Hu & Bentler, 1999) suggest “good” fit; (b) values from .05 to .10 suggest “acceptable” fit (Browne & Cudeck, 1992; MacCallum et al., 1996); and (c) values larger than .10 suggest “bad” fit (Browne & Cudeck, 1992). When cutoffs were first suggested, the researchers who proposed them emphasized without exception that these values were simply crude aids for interpretation rather than strict thresholds and were based on experience and intuition rather than mathematical derivation (Bentler & Bonett, 1980; McDonald & Marsh, 1990; Browne & Cudeck, 1992; MacCallum et al., 1996; Hu & Bentler, 1998; Hu & Bentler, 1999). Mueller and Hancock (2010) noted that inconsistent fit indices can occur and advised not to simply dismiss a bad-looking index when inconsistency occurs, but to take into account the various indices when interpreting the results. Fabio and Gori (2016) pointed that for RMSEA researchers consider 0.10 as a reasonable cutoff for good versus poor fitting models if the other indexes used to verify the model fit are good or acceptable, which was the case in this study.

Many studies found acceptable to good fitting models with RMSEA more than 0.08 such as Fryer et al. (2014) showed RMSEA= .095 (CFI=.91), Kashdan et al. (2014) reported RMSEA=.15 (CFI=.87), Sellbom et al. (2014) disclosed RMSEA =0.097 (CFI=0.960, TLI=0.940), Tran et al. (2014) found RMSEA=.111 (CFI=.970, TLI=.940), Kim and Shute (2015) revealed RMSEA=.15 (CFI=.95), Fabio and Gori (2016) found RMSEA=.096 (CFI=.932, TLI=.915), Lloyd et al. (2017) reported perceived listening quality’s three sub-scales’ CFA models with RMSEA =.102 (CFI = .93, TLI = .92) for model 1, RMSEA = .15 (CFI = .85, TLI = .83) for model 2 and RMSEA = .095 (CFI = .96; TLI = .95) for model 3.

The pressing issue is the selection of the ‘rules of thumb’ conventional cut-off criteria for given fit indexes used to evaluate model fit (Hu & Bentler, 1999). This has rarely been studied empirically (e.g., Marsh & Hau, 1996). Consequently, researchers often question the adequacy of these conventional cut-off criteria due to the lack of empirical evidence and compelling rationale for these rules of thumb (Hu & Bentler, 1999). For example, Marsh (1995) suggested that although researchers typically

interpret values greater than .90 as acceptable for incremental fit indexes, no compelling rationale for this rule of thumb has been provided.

Even though the values for GFI do not exceed 0.9, it still meets the requirement suggested by Doll et al. (1994) and Baumgartner and Homburg (1995): the value is acceptable if above 0.8. Despite the popularity of GFI usage, GFI was criticized as a poor measure of overall model fit (Hu & Bentler, 1999). Many researchers describe GFI as very sensitive measurement technique and often do not recommend them to be reported. However, it is still reported frequently likely due to its historical value than the actual benefit (Sharma et al., 2005). Cheng (2011) reported GFI in-between range of 0.8-0.9 for CFA models of attitudinal loyalty and behavioural loyalty. He found GFI= 0.835 (TLI= 0.913, IFI= 0.920, RMSEA= 0.054, CFI= 0.920) for the former and GFI= 0.838 (TLI= 0.917, IFI= 0.924, RMSEA= 0.052, CFI= 0.924) for the latter. They were good fit models and accepted. Kim et al. (2016) reported GFI = 0.839 (NFI= 0.817, TLI= 0.860, RMSEA = 0.074, CFI= 0.878). It was reported that, 'based on these indices, this sample has an acceptable fit to the 6-factor model'. Wong and Carlbäck (2018) reported GFI= 0.893 (TLI= 0.884, IFI= 0.905, RMSEA= 0.076, CFI= 0.904) for the model. It was reported that, 'the indices generated good support for the model. Hence, it can be concluded that the model has a good fit'.

Some resultant values are less than the value of 0.9 as suggested by Bentler and Bonett (1980), Bentler (1990), Segars and Grovers (1993) and Hatcher (1994) and Chau (1997). Also, Hair et al. (2010) have revealed that if 3-4 indices of a model pass or clear the minimum requirements then the model can be considered to be fit. Schumacker and Lomax (2016) suggested that, if the fit indices in the majority are above the threshold values, the conclusion can be given that the theoretical model is supported by data". Therefore, the resulting indices (standard-fit) portray that the model's factor-structure is approved. The figure 2.2 shows a comprehensive view of the adversity quotient scale's C.F.A. model.

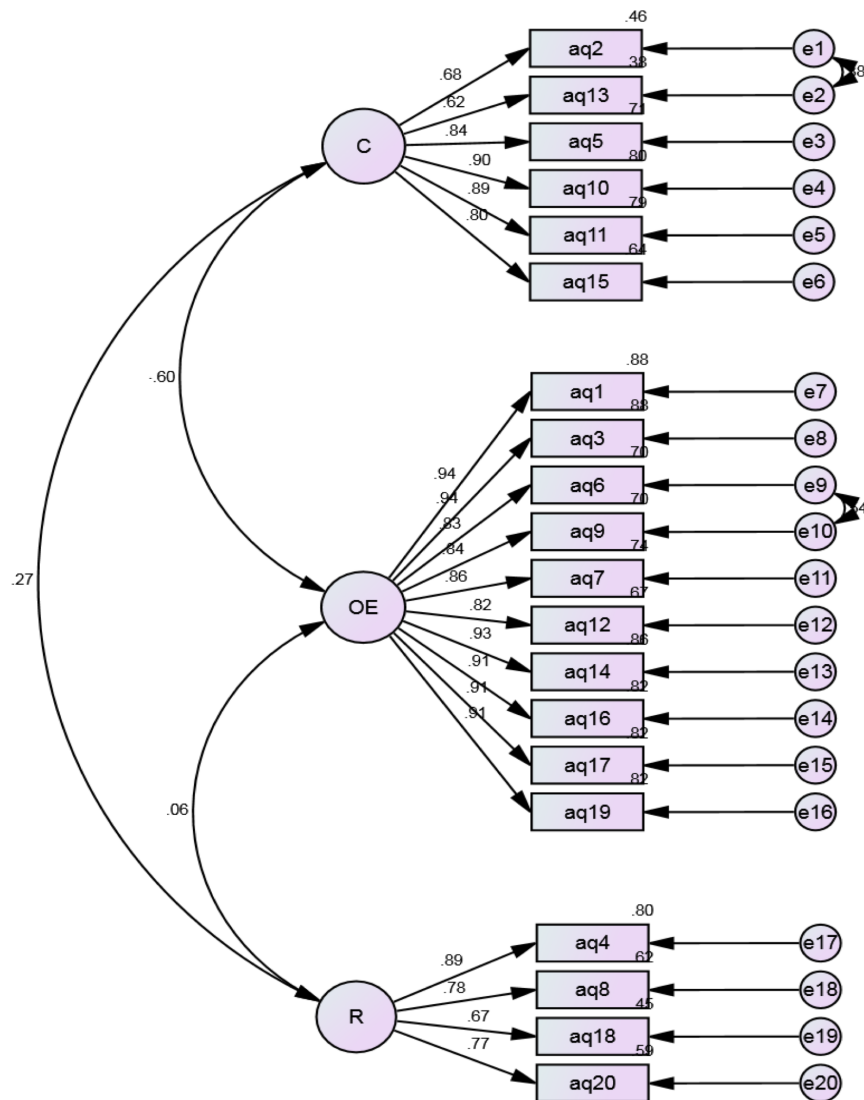


Figure 2.2 Confirmatory Factor Analysis Model of Adversity Quotient Scale

2.4.7 CONCURRENT VALIDITY:

Concurrent validity is measured through the correlation between the new test and the existing test for demonstrating that whether this new test has a good correlation with the existing test (Murphy & Davidshofer, 1998). The resultant correlation is known to be the concurrent validity coefficient. Previous researches by Shen and Chang (2009) and Shen et al. (2011) demonstrated significant relationship in-between “Job Stress and Adversity Quotient”.

Singh and Sharma (2017) put forth that there exists a significant relationship with a negative correlation in-between adversity quotient and occupational stress. The

concurrent validity was established with standardised Indian scale viz. teachers' occupational stress scale (TOSS). The description of the scale is as follows:

Name of Standardised Tool: Teachers' Occupational Stress Scale (TOSS)

Constructed by: Sajid Jamal and Abdul Raheem

Year of Construction: 2012

Availability: National Psychological Corporation (NPC), Agra

Country: India

Applicability: Secondary school teachers

Language: English

The concurrent validity between the adversity quotient scale and teachers' occupational stress scale (TOSS) came out to be $r = -.748$ (significant at 0.01 level). The result indicates that there is a high and negative correlation between "Adversity Quotient and Teachers' Occupational Stress". Therefore, it can be deduced that the lower the teacher's occupational stress, the higher will be the adversity quotient of a teacher and vice-versa. The result has been shown in the table 2.10 below:

TABLE 2.10
CONCURRENT VALIDITY OF THE ADVERSITY QUOTIENT SCALE

Construct	Teacher's Occupational Stress
Adversity Quotient	-.748

Note: Significant at 0.01 level with negative correlation (Singh and Sharma, 2017)

2.4.8 RELIABILITY ANALYSIS:

For assessing the adversity quotient scale's internal consistency, the reliability was calculated by interpretation of the obtained value of "Cronbach's Alpha" (Cronbach, 1951). The "Cronbach's Alpha" value for the final set of items of the adversity quotient scale was found out to be 0.774 (Table 2.11). This obtained value of Cronbach's alpha is illustrating high internal consistency amongst the adversity quotient scale items. The interpretation by Gliem and Gilem (2003) gave an assertion that, "the alpha reliability coefficient has a range between 0 to 1". But, the alpha

reliability coefficient has no lower limit and the closer the alpha value is towards 1, the greater will be the measure's internal consistency.

The AVE (Average Variance Extracted) of all the factors is greater than 0.40 (Fornell & Larcker, 1981; Farooq, 2016). The Composite Reliability Coefficient (CR) of all the factors of adversity quotient is greater than .70 (threshold) (Fornell & Larcker, 1981). Therefore, the analysis of the scale reliability suggests that the adversity quotient scale is internally consistent. A copy of the scale has been placed in Appendix B.

TABLE 2.11
RELIABILITY STATISTICS OF ADVERSITY QUOTIENT SCALE

Constructs	Number of Items	Cronbach's Alpha	Average Variance Extracted	Composite Reliability
Control	6	0.9	0.621	0.907
Ownership and Endurance	10	0.894	0.770	0.971
Reach	4	0.860	0.689	0.898
Adversity Quotient Scale	20	0.774		

Note: Cronbach's alpha is acceptable for adversity quotient (DeVellis, 2016) and has good internal reliability for its dimensions (George & Mallery, 2003); AVE > 0.40 (Fornell & Larcker, 1981; Farooq, 2016); CR > 0.70 (Fornell & Larcker, 1981)

2.4.9 SCORING PROCEDURE OF ADVERSITY QUOTIENT SCALE:

For the purpose of scoring, a five-point rating scale was used in the adversity quotient scale. Each positive item is rated on five sequential points, "5=Strongly agree to 1= Strongly disagree" and each negative item is rated on the five sequential points, "1=Strongly agree to 5=Strongly disagree". The following table presents the scoring pattern of test items of the Adversity Quotient Scale.

TABLE 2.12
SCORING PROCEDURE OF ADVERSITY QUOTIENT SCALE

ITEM	S.A.	A.	U.N.	D.	S.D.
+ve	5	4	3	2	1
-ve	1	2	3	4	5

Note: +ve= Positive, -ve= Negative; "S.A.= Strongly Agree, A.= Agree, U.N.= Undecided, D.= Disagree, S.D.= Strongly Disagree"

2.4.10 FINAL DRAFT:

The final draft of “Adversity Quotient Scale” has 20 items distributed in three dimensions viz., “Control, Ownership and Endurance, Reach”. The final draft of the adversity quotient scale has 20-items distributed in three dimensions viz. control, ownership and endurance, reach. The serial number-wise item distribution has been presented in the table no. 2.13.

TABLE 2.13
NUMBER OF ITEMS AND DIFFERENT DIMENSIONS OF ADVERSITY
QUOTIENT SCALE

Dimension	Nature of Item	Serial Number of Items	Total
Control	Positive	2, 13	6
	Negative	5, 10, 11, 15	
Ownership and Endurance	Positive	1, 3, 6, 7, 9, 14	10
	Negative	12, 16, 17, 19	
Reach	Positive	8, 18	4
	Negative	4, 20	
TOTAL			20

2.4.11 SCORING, NORMS AND INTERPRETATION:

The final scale consists of 20 items related to the adversity quotient scale. Based on descriptive statistics, the “z-score norms” have been prepared by applying formula (Raw Score-Mean/SD). The range of individual respondents score calculated from the raw score on the present scale on the basis of descriptive statistics, z-score norms based on responses have been prepared. For the adversity quotient, the range of raw scores is in the range of 42 to 89. The z-scores norms and raw scores for adversity quotient and its dimensions has been displayed in Table 2.14 and z-score norms for interpreting the levels of adversity quotient and its dimensions have been displayed in the table 2.15.

TABLE 2.14
z-SCORE NORMS OF ADVERSITY QUOTIENT SCALE AND ITS DIMENSIONS

ADVERSITY QUOTIENT						CONTROL				OWNERSHIP AND ENDURANCE				REACH			
Raw-Score	z-Score	Raw-Score	z-Score	Raw-Score	z-Score	Raw-Score	z-Score	Raw-Score	z-Score	Raw-Score	z-Score	Raw-Score	z-Score	Raw-Score	z-Score	Raw-Score	z-Score
42	-2.95	43	-2.84	44	-2.72	6	-2.88	7	-2.55	35	-2.54	36	-2.04	6	-2.59	7	-2.09
45	-2.61	46	-2.50	47	-2.39	8	-2.21	9	-1.88	37	-1.55	38	-1.05	8	-1.60	9	-1.10
48	-2.28	49	-2.16	50	-2.05	10	-1.55	11	-1.21	39	-0.55	40	-0.05	10	-0.60	11	-0.10
51	-1.94	52	-1.83	53	-1.72	12	-0.88	13	-0.55	41	+0.44	42	+0.94	12	+0.39	13	+0.89
54	-1.60	55	-1.49	56	-1.38	14	-0.21	15	+0.12	43	+1.44	44	+1.94	14	+1.39	15	+1.89
57	-1.27	58	-1.16	59	-1.04	16	+0.45	17	+0.79	45	+2.43	46	+2.93	16	+2.38	17	+2.88
60	-0.93	61	-0.82	62	-0.71	18	+1.12	19	+1.45								
63	-0.60	64	-0.48	65	-0.37	20	+1.79	21	+2.12								
66	-0.26	67	-0.15	68	-0.04	22	+2.45	23	+2.79								
69	+0.08	70	+0.19	71	+0.30												
72	+0.41	73	+0.52	74	+0.64												
75	+0.75	76	+0.86	77	+0.97												
78	+1.08	79	+1.20	80	+1.31												
81	+1.42	82	+1.53	83	+1.64												
84	+1.76	85	+1.87	86	+1.98												
87	+2.09	88	+2.20	89	+2.32												

TABLE 2.15

z-SCORE NORMS FOR INTERPRETING THE LEVELS OF ADVERSITY QUOTIENT SCALE AND ITS DIMENSIONS

	Adversity Quotient		Control	
Sr. No.	Range of z-Scores	Level of Adversity Quotient	Range of z-Scores	Level of Control
1	+2.21 and above	Very High Adversity Quotient	+2.13 and above	Very High Control
2	+1.54 to +2.20	High Adversity Quotient	+1.46 to +2.12	High Control
3	+0.76 to +1.53	Above Average Adversity Quotient	+0.80 to +1.45	Above Average Control
4	-0.71 to +0.75	Average Adversity Quotient	-0.88 to +0.79	Average Control
5	-1.49 to -0.72	Below Average Adversity Quotient	-1.55 to -0.89	Below Average Control
6	-2.28 to -1.50	Low Adversity Quotient	-2.21 to -1.56	Low Control
7	-2.29 and below	Very Low Adversity Quotient	-2.22 and below	Very Low Control
	Ownership and Endurance		Reach	
Sr. No.	Range of z-Scores	Level of Ownership and Endurance	Range of z-Scores	Level of Reach
1	+2.44 and above	Very High Ownership and Endurance	+2.39 and above	Very High Reach
2	+1.45 to +2.43	High Ownership and Endurance	+1.40 to +2.38	High Reach
3	+0.95 to +1.44	Above Average Ownership and Endurance	+0.90 to +1.39	Above Average Reach
4	-0.55 to +0.94	Average Ownership and Endurance	-0.60 to +0.89	Average Reach
5	-1.55 to -0.56	Below Average Ownership and Endurance	-1.60 to -0.61	Below Average Reach
6	-2.04 to -1.56	Low Ownership and Endurance	-2.09 to -1.61	Low Reach
7	-2.05 and below	Very Low Ownership and Endurance	-2.10 and below	Very Low Reach

2.5 DESCRIPTION OF ALIENATION SCALE:

In the present study, the alienation scale for secondary school teachers is developed by modifying the alienation scale by Ojha (2010) measuring alienation of adults above 21 years of age. The alienation scale's validity and reliability was measured and also, overall and dimension-wise norms were developed to get better usability and consistent information of the alienation in secondary school teachers. The alienation scale is based on 5-point rating that is "Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree". This scale has 18 statements measuring the overall alienation of an individual. According to Seeman (1959), alienation is a psychological state in which an individual develops a sense of loss of relationship with others and feels relatively estranged, having lack of power, socially isolated, apartness, anomie, having lack of meaning, cynicism and dissatisfaction. The dimensions that make up the alienation scale are social isolation, cultural estrangement and work alienation. Social isolation refers to the detachment for social values. Cultural estrangement refers to value isolation that is, rejection by individual of the commonly held cultural values of society. Work alienation refers to being powerless meaning exclusion from decision-making, absence of effective guidelines for behaviour thereby becoming normless, lack of clarity being meaningless and being estranged from self which means a loss of intrinsically meaningful activity (Seeman, 1959; Blauner, 1964; Mottaz, 1981; Seeman, 1991; Lacourse et al., 2003; Mendoza & Lara, 2007; Ojha, 2010; Chiaburu et al., 2013; Shantz et al., 2015; Nuran, 2018). Therefore, alienation scale is based on three dimensions pertaining to 6 items for social isolation, 8 items for work alienation and 4 items for cultural estrangement. Lower the scores in the scale indicates a robust absence of social isolation, work alienation, cultural estrangement and overall alienation of a teacher.

2.5.1 CONTENT VALIDITY:

After preparation of the statements of the scale, the validity (content) conducted was qualitative as well as quantitative in nature with the helping contribution by fifteen experts holding doctoral degrees in the fields of education, social sciences, management and psychology. Item construction's general procedure is expert judgement (Netemeyer et al., 2003; DeVellis, 2016). For the qualitative and

quantitative analysis, a complete package of 20 items was given to the fifteen content experts for improving the overall quality of the alienation scale. For the quantitative assessment, experts of subjects were requested to mark the appropriateness of each of the statements by putting tick mark against each item wherein marking under,”1 meant not essential, 2 meant not essential but useful and 3 meant Essential”. After combining all the tools of assessment by all experts as one tool of assessment, the determination of the cases where the numbers of experts have given approval for each possible option of the statements was carried out. After this process, the calculation of the content validity rate (CVR) for each item considering the formula suggested by Veneziano and Hooper (1997) and Yurdagül (2005) was done. The formula is $CVR = (N_e / (N/2)) - 1$; where CVR= Content Validity Rates, N_e = Number of the experts marked essential and N = Total number of the experts. Table 2.16 is highlighting the item-wise content validity calculations of CVR for the alienation scale.

TABLE 2.16
CONTENT VALIDITY FOR ALIENATION SCALE

Item No.	CVR	Item No.	CVR
ITEM- 1	0.87	ITEM- 2	0.87
ITEM- 3	0.87	ITEM- 4	1.00
ITEM- 5	1.00	ITEM- 6	0.87
ITEM- 7	0.87	ITEM- 8	0.87
ITEM- 9	1.00	ITEM- 10	1.00
ITEM- 11	0.87	ITEM- 12	0.87
ITEM- 13	0.87	ITEM- 14	0.87
ITEM- 15	0.87	ITEM- 16	0.87
ITEM- 17	1.00	ITEM- 18	1.00
ITEM- 19	1.00	ITEM- 20	1.00

Note: “All accepted items obtained CVR value at or above 0.87 in this assessment”.

The content validity calculated on the basis of fifteen expert opinions of the alienation scale was analysed. The minimum value of CVR in accordance with the expert opinion number (Veneziano & Hooper, 1997) for fifteen experts is 0.49. The retained items of the scale have CVR value at or above 0.87 in this assessment.

2.5.2 EXPLORATORY FACTOR ANALYSIS:

To test the validity (factorial) of the “Alienation Scale”, the scale was applied to two-hundred secondary school teachers. KMO test (Kaiser-Meyer-Olkin) and the Bartlett’s Sphericity test was applied for determining whether the twenty-item scale of alienation fits the factor analysis or not. Subsequently, then, various series of factor analysis’ iterative cycles were carried out on the data set. Principal Components Analysis (PCA) was used. After each iteration, the numbers of elements extracted as well as the overall variance explained were inspected. The KMO value came to be 0.893, which is used to determine whether the sampling size and data are suitable and sufficient for the analysis selected. The Bartlett’s Sphericity test was carried out for checking if the data comes from a multi-variate normal distribution and the result came out to be significant (Sig=.000, $p < .01$). It is required that the result of Bartlett’s Sphericity test must be statistically significant ($p < 0.01$). The KMO measurement test result must be either above or equal to 0.60 (Tabachnick & Fidell, 1996). As the obtained values through the overhead referred analysis is fitting the basic “hypotheses” at a good level so, the factor analysis can be carried out (Kothari & Garg, 2014).

TABLE 2.17
KMO AND BARTLETT’S TEST OF SPHERICITY

·Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy	·Bartlett’s Test of Sphericity (BTS)	
	·Approx. Chi-Square	·Sig.
0.893	2732.276	.000

Note: “KMO value is above 0.60 and p-value of Bartlett’s Sphericity test is less than 0.01. So, further factor analysis can be carried out (Kothari & Garg, 2014)”.

Since the factor loadings show the correlation between the main structure and the item to be measured therefore, the examination of the relevant factors appearing due to the analysis (basic component) and factor loading was done. Henceforth these process of analysis, the end form of the “Alienation Scale” was put forth with eighteen items. Item 1 and item 8 were omitted due to lower and dual-factor loading.

By the varimax method, the “rotated components matrix” converted due to EFA has been presented in the table 2.18. The vertical rotating method of the varimax method was used for ensuring that the variances of the factors will have higher value with few number of variables.

The “exploratory factor analysis” put forth a three-factor structure with factor social isolation with six items, factor work alienation with eight items and factor cultural estrangement with four items, explaining 69.23% of the variance (Acceptable variance is 50%; Streiner, 1994). All the items have loadings above the 0.40 threshold value (Hair et al., 2010). Table 2.18 presents factor-wise alienation scale’s items and their factor loadings.

TABLE 2.18
RESULTS OF THE EXPLORATORY FACTOR ANALYSIS OF THE
ALIENATION SCALE

FACTOR-I	FACTOR	FACTOR-II	FACTOR	FACTOR-III	FACTOR
ITEMS	LOADINGS	ITEMS	LOADINGS	ITEMS	LOADINGS
ITEM- 2	.821	ITEM- 4	.649	ITEM- 16	.656
ITEM- 3	.917	ITEM- 5	.707	ITEM- 18	.759
ITEM- 6	.900	ITEM- 10	.810	ITEM- 19	.865
ITEM- 7	.916	ITEM- 11	.693	ITEM- 20	.778
ITEM- 9	.908	ITEM- 13	.729		
ITEM- 12	.688	ITEM- 14	.710		
		ITEM- 15	.780		
		ITEM- 17	.677		

Note: “All the retained items have factor loadings above the acceptable value of 0.40 (Hair et al., 2010)”

2.5.3 CONFIRMATORY FACTOR ANALYSIS:

The E.F.A. (Exploratory Factor Analysis) only gives the dimensionality idea but the C.F.A. (Confirmatory Factor Analysis) emphasizes on the fact that if a factor model which is hypothesized fits or doesn't fit the said data set. Therefore, as the name implies, "the C.F.A. is a technique which is universally accepted to confirm dimensionality (Floyd & Widaman, 1995; Netemeyer et al., 2003). The application of C.F.A was done using IBM AMOS-23 to the three factors which were extracted after the E.F.A. Structure of the "Alienation Scale" constitutes eighteen items having three factors and it was tested using the C.F.A. An improved Confirmatory Factor Analysis run sequence was conducted and the resultant outcomes of the statistics for the fit indices are presented in table 2.19.

TABLE 2.19

MEASUREMENT MODEL GOODNESS OF FIT OF ALIENATION SCALE

Measure Fit	Fit Indices	Measure Standard
Incremental Fit Index (IFI)	0.904	The value over 0.90 is a good fit (Bollen, 1989; Hair et al., 2006).
Root Mean Square Error of Approximation	0.091	Values from .05 to .10 suggest "acceptable" fit (Browne & Cudeck, 1992; MacCallum et al., 1996). Same range reported by (Fryer et al., 2014; Kashdan et al., 2014; Sellbom et al., 2014; Tran et al., 2014; Kim & Shute, 2015; Fabio & Gori, 2016; Lloyd et al., 2017).
Normed Fit Index (NFI)	0.900	The values above 0.90 indicates good fit (Bollen, 1989; Hair et al., 2006; Kline, 2015).
Goodness of Fit Index (GFI)	0.828	The value is acceptable if above 0.8 (Doll et al., 1994; Baumgartner & Homburg, 1995). Reported by (Hair et al., 2006; Cheng, 2011; Kim et al., 2016; Wong & Carlbäck, 2018).
Tucker- Lewis Index (TLI)	0.900	TLI has ranges from 0.85 and over 0.9 being a good fit (Bentler & Bonett, 1980; Sharma et al., 2005; Hair et al., 2006; Kline, 2015).
Comparative Fit Index (CFI)	0.903	TLI ranging from 0.85 and over 0.9 is a good fit (Hair et al., 2006; Hair et al., 2010; Kline, 2015; Schumacker & Lomax, 2016).

Note: When 3-4 indices in a model pass the minimum requirement, the model is considered as fit (Hair et al., 2010). If the fit indices in the majority are above the threshold values, the conclusion can be given that the theoretical model is supported by data (Schumacker & Lomax, 2016).

The “GFI and CFI” indices standard values should be between 0 and 1 though, in literature there are varying viewpoints on these values. Hair et al. (2010) suggested that, the value of CFI > 0.85 is acceptable and the value of CFI > 0.90 is considered a better fit (p. 647). If CFI > .90 then it’s a good fit (Schumacker & Lomax, 2016). Additionally, various studies by Gay et al. (2010), Mahne and Huxhold (2014) and Lima-Rodríguez et al. (2015) have the value of CFI less than 0.90.

The most widely used cutoffs for RMSEA yield the following interpretations: (a) Values less than .05 (Browne & Cudeck, 1992) or .06 (Hu & Bentler, 1999) suggest “good” fit; (b) values from .05 to .10 suggest “acceptable” fit (Browne & Cudeck, 1992; MacCallum et al., 1996); and (c) values larger than .10 suggest “bad” fit (Browne & Cudeck, 1992). “When cutoffs were first suggested, the researchers who proposed them emphasized without exception that these values were simply crude aids for interpretation rather than strict thresholds and were based on experience and intuition rather than mathematical derivation (Bentler & Bonett, 1980; McDonald & Marsh, 1990; Browne & Cudeck, 1992; MacCallum et al., 1996; Hu & Bentler, 1998; Hu & Bentler, 1999). Mueller and Hancock (2010) noted that inconsistent fit indices can occur and advised not to simply dismiss a bad-looking index when inconsistency occurs, but to take into account the various indices when interpreting the results. Fabio and Gori (2016) pointed that researchers consider 0.10 as a reasonable cutoff for good versus poor fitting models if the other indexes used to verify the model fit are good or acceptable, which was the case in this study.

Many studies found acceptable to good fitting models with RMSEA more than 0.08 such as Fryer et al. (2014) showed RMSEA = .095 (CFI = .91), Kashdan et al. (2014) reported RMSEA = .15 (CFI = .87), Sellbom et al. (2014) disclosed RMSEA = 0.097 (CFI = 0.960, TLI = 0.940), Tran et al. (2014) found RMSEA = .111 (CFI = .970, TLI = .940), Kim and Shute (2015) revealed RMSEA = .15 (CFI = .95), Fabio and Gori (2016) found RMSEA = .096 (CFI = .932, TLI = .915), Lloyd et al. (2017) reported perceived listening quality’s three sub-scales’ CFA models with RMSEA = .102 (CFI = .93, TLI = .92) for model 1, RMSEA = .15 (CFI = .85, TLI = .83) for model 2 and RMSEA = .095 (CFI = .96; TLI = .95) for model 3.

The pressing issue is the selection of the 'rules of thumb' conventional cut-off criteria for given fit indexes used to evaluate model fit (Hu & Bentler, 1999). This has rarely been studied empirically (e.g., Marsh & Hau, 1996). Consequently, researchers often question the adequacy of these conventional cut-off criteria due to the lack of empirical evidence and compelling rationale for these rules of thumb (Hu & Bentler, 1999). For example, Marsh (1995) suggested that although researchers typically interpret values greater than .90 as acceptable for incremental fit indexes, no compelling rationale for this rule of thumb has been provided.

Even though the values for GFI do not exceed 0.9, it still meets the requirement suggested by Doll et al. (1994) and Baumgartner and Homburg (1995): the value is acceptable if above 0.8. Despite the popularity of GFI usage, GFI was criticized as a poor measure of overall model fit (Hu & Bentler, 1999). Many researchers describe GFI as very sensitive measurement technique and often do not recommend them to be reported. However, it is still reported frequently likely due to its historical value than the actual benefit (Sharma et al., 2005). Cheng (2011) reported GFI in-between range of 0.8-0.9 for CFA models of attitudinal loyalty and behavioural loyalty. He found GFI= 0.835 (TLI= 0.913, IFI= 0.920, RMSEA= 0.054, CFI= 0.920) for the former and GFI= 0.838 (TLI= 0.917, IFI= 0.924, RMSEA= 0.052, CFI= 0.924) for the latter. They were good fit models and accepted. Kim et al. (2016) reported GFI = 0.839 (NFI= 0.817, TLI= 0.860, RMSEA = 0.074, CFI= 0.878). It was reported that, 'based on these indices, this sample has an acceptable fit to the 6-factor model'. Wong and Carlbäck (2018) reported GFI= 0.893 (TLI= 0.884, IFI= 0.905, RMSEA= 0.076, CFI= 0.904) for the model. It was reported that, 'the indices generated good support for the model. Hence, it can be concluded that the model has a good fit'.

Some resultant values are less than the value of 0.9 as suggested by Bentler and Bonett (1980), Bentler (1990), Segars and Grovers (1993) and Hatcher (1994) and Chau (1997). Also, Hair et al. (2010) have revealed that if 3-4 indices of a model pass or clear the minimum requirements then the model can be considered to be fit. Schumacker and Lomax (2016) suggested that, if the fit indices in the majority are above the threshold values, the conclusion can be given that the theoretical model is

supported by data. The figure 2.3 shows a comprehensive view of the alienation scale's C.F.A. (Confirmatory Factor Analysis) model.

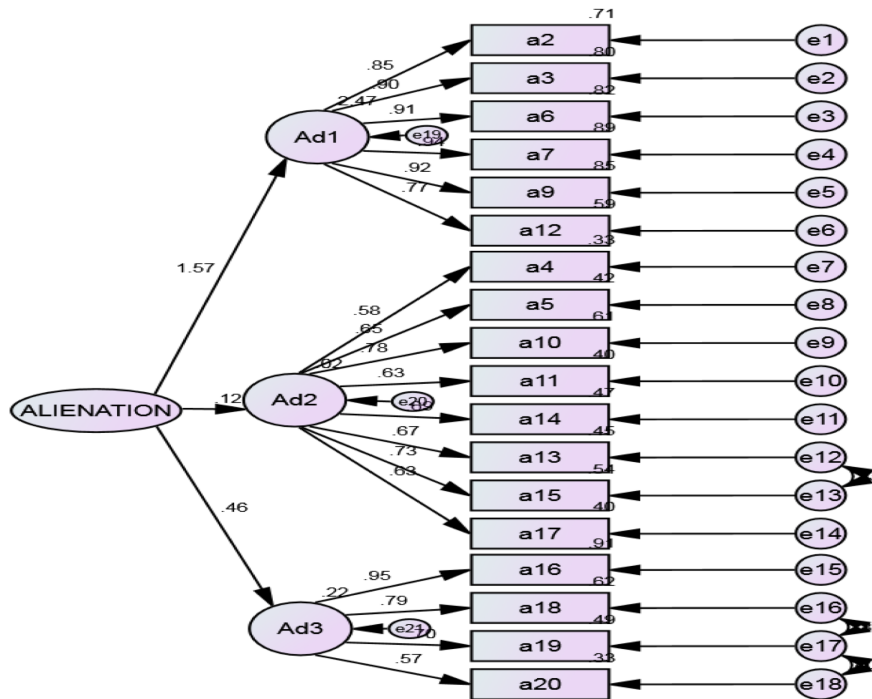


Figure 2.3 Alienation Scale's Confirmatory Factor Analysis Model

It has been reported by Ralph et al. (2020) that factor loadings exceeding more than 1 doesn't indicate a problem since they are regression coefficients, not correlations (Jöreskog, 1999). Deegan (1978) evidentially revealed that, "Standardized regression coefficients greater than one can legitimately occur. Perhaps the nagging uncertainty that surrounds the legitimacy of standard regression coefficients greater than one, and which serves to inhibit their interpretation, can be traced to the frequently made analogy between standardized regression coefficients and correlation coefficients (or partial correlation coefficients). If this is the case, then it must first be realized that while standardized regression coefficients are analogous to correlation coefficients, they are not correlations (or partial correlations), they are rates of change. Consequently, standardized regression coefficients are not numerically bounded by ± 1 , as are correlation coefficients, except in the simple regression case. Consequently, standardized regression coefficients greater than one must have the same direct interpretation as all other rates of change. Finally, consider for a moment the ramifications of model revision occurring as a response to the mere

presence of estimated standardized regression coefficients greater than one. Since it has been established that such coefficients can legitimately occur (and may readily occur in the presence of high degree of correlation), analysts should not be reticent to report models with this characteristic. Neither should analysts feel compelled to modify models simply because of concern that the presence of high collinearity may render offered models vulnerable to criticism. By modifying models simply to reduce the presence of high collinearity and/or to rid a model of standardized coefficients greater than one an analyst risks the biasing effects of model specification error (see, for example, Deegan 1974, 1976). Such behavior must be considered most damaging since the presence of high collinearity in a model causes no bias in estimated coefficients and consequently can completely distort interpretation of the results (Deegan, 1978)".

The standardized regression coefficients have values greater than 1 in approved models of many research studies (Branje et al., 2004; Ribeaud & Eisner, 2006; Roben et al., 2013; Expósito et al., 2014; Jung, 2014; Park, 2014; Souders et al., 2016; Zhang et al., 2017; Bizumic & Duckitt, 2018; Taylor et al., 2018; Ralph et al., 2020) and they quoted findings of Deegan (1978) as well. Litwiller (2014) in his doctoral thesis reported that, "although many of the standardized path coefficients exceeded 1, standardized coefficients can exceed 1 and still have as much interpretive value as coefficients less than 1 (Hayes 2009; Jöreskog, 1999). Coefficients of such magnitude generally only appear when variables are highly correlated (Deegan, 1978)." The same was reported earlier in doctoral dissertation by Gagnon (2003).

"A common misunderstanding is that the coefficients in the completely standardized solution must be smaller than one in magnitude and if they are not, something must be wrong. However, this need not be so. Just remember that a standardized coefficient of 1.04, 1.40, or even 2.80 does not necessarily imply that something is wrong (Jöreskog, 1999)". It might suggest that there is a high degree of correlation. There are further research studies with approved models who have reported standardized regression coefficient values greater than 1" (Kavanagh et al., 2013; Kawabata et al., 2014; Tseng et al., 2014; Toll et al., 2015; Swanson & Fung,

2016; Kleiman et al., 2017) and also, they pointed findings of Jöreskog (1999). Therefore, the resulting indices portray that the model’s factor-structure is approved.

2.5.4 RELIABILITY ANALYSIS:

To assess the alienation scale’s internal consistency, the reliability was calculated by interpretation of the obtained value of “Cronbach’s Alpha” (Cronbach, 1951). Also, the A.V.E. (Average Variance Extracted) and C.R. (Composite Reliability) were assessed. The coefficient of alpha is generally used for measuring the internal consistency. Practically, “it is important to verify whether the coefficient of alpha (α) is high (Hayashi & Kamata, 2005)”. The Cronbach’s alpha for the alienation scale’s final set of items was found out to be as .878 (displayed in table 2.20). This resultant value illustrates an internal consistency with a high degree as the interpretations made by Gliem and Gilem (2003).

The A.V.E. (Average Variance Extracted) of all the factors of alienation is greater than 0.40 (Forner & Larcker, 1981; Farooq, 2016). The Composite Reliability coefficient (C.R.) of all the factors is greater than 0.70 (Fornell & Larcker, 1981). So, the analysis of the scale reliability suggests that the alienation scale is internally consistent. A copy of the scale has been placed in Appendix C.

TABLE 2.20
RELIABILITY STATISTICS OF ALIENATION SCALE

Constructs	N	Cronbach’s Alpha	Average Variance Extracted	Composite Reliability
Social Isolation	6	0.892	0.744	0.945
Work Alienation	8	0.869	0.520	0.896
Cultural Estrangement	4	0.875	0.590	0.851
Alienation Scale	18	0.878		

Note: For alienation and its dimensions, Cronbach’s Alpha indicated good internal reliability (George & Mallery, 2003); AVE > 0.40 (Forner & Larcker, 1981; Farooq, 2016); CR > 0.70 (Fornell & Larcker, 1981)

2.5.5 SCORING PROCEDURE:

For the purpose of scoring, a five-point rating scale was used in the Alienation scale. Each positive item is rated on five sequential points, “5=Strongly agree to 1= Strongly disagree” and each negative item is rated on five sequential points,

“1=Strongly agree to 5=Strongly disagree”. The alienation scale has 8 positive and 10 negative items. The following table presents the scoring pattern of test items on the alienation scale.

TABLE 2.21
SCORING PROCEDURE OF ALIENATION SCALE

Items	Strongly Agree (SA)	Agree (A)	Undecided (UN)	Disagree (D)	Strongly Disagree (SD)
Positive	5	4	3	2	1
Negative	1	2	3	4	5

2.5.6 FINAL DRAFT:

The final draft of the alienation scale has 18 items distributed in three dimensions viz: social isolation, work alienation, cultural estrangement. The serial number-wise distribution of the items of alienation scale is presented in the no. table 2.22.

TABLE 2.22
NUMBER OF ITEMS AND DIFFERENT DIMENSIONS OF ALIENATION SCALE

Dimension	Serial Number of Items	Total
Social Isolation	1, 2, 5, 6, 7, 10	6
Work Alienation	3, 4, 8, 9, 11, 12, 13, 15	8
Cultural Estrangement	14, 16, 17, 18	4
TOTAL		18

2.5.7 SCORING, NORMS AND INTERPRETATION:

The final scale consists of eighteen items related to the alienation scale. Based on descriptive statistics, the “z-score norms” have been prepared by applying formula (Raw Score-Mean/SD). The range of individual respondents score calculated from the raw score on the present scale on the basis of descriptive statistics, z-score norms based on responses have been prepared. The range of raw scores for alienation is in the range of 31 to 78, presented in table 2.23. Norms for interpretation of the levels of alienation and its dimensions have been displayed comprehensively in the table no. 2.24.

TABLE 2.23 z-SCORE NORMS OF ALIENATION SCALE AND ITS DIMENSIONS

ALIENATION						SOCIAL ISOLATION				WORK ALIENATION				CULTURAL ESTRANGEMENT			
Raw-Score	z-Score	Raw-Score	z-Score	Raw-Score	z-Score	Raw-Score	z-Score	Raw-Score	z-Score	Raw-Score	z-Score	Raw-Score	z-Score	Raw-Score	z-Score	Raw-Score	z-Score
31	-2.61	32	-2.50	33	-2.39	10	-2.65	11	-2.19	16	-2.86	17	-2.43	7	-2.60	8	-2.10
34	-2.28	35	-2.17	36	-2.06	12	-1.73	13	-1.27	18	-1.99	19	-1.56	9	-1.60	10	-1.10
37	-1.94	38	-1.83	39	-1.72	14	-0.81	15	-0.35	20	-1.13	21	-0.69	11	-0.60	12	-0.10
40	-1.61	41	-1.50	42	-1.39	16	+0.11	17	+0.57	22	-0.26	23	+0.18	13	+0.39	14	+0.89
43	-1.27	44	-1.16	45	-1.05	18	+1.02	19	+1.48	24	+0.61	25	+1.05	15	+1.39	16	+1.89
46	-0.94	47	-0.83	48	-0.71	20	+1.94	21	+2.40	26	+1.48	27	+1.92	17	+2.39	18	+2.89
49	-0.60	50	-0.49	51	-0.38	22	+2.86			28	+2.35	29	+2.78				
52	-0.27	53	-0.16	54	-0.04												
55	+0.07	56	+0.18	57	+0.29												
58	+0.40	59	+0.51	60	+0.63												
61	+0.74	62	+0.85	63	+0.96												
64	+1.07	65	+1.18	66	+1.30												
67	+1.41	68	+1.52	69	+1.63												
70	+1.74	71	+1.85	72	+1.97												
73	+2.08	74	+2.19	75	+2.30												
76	+2.41	77	+2.52	78	+2.64												

TABLE 2.24
NORMS FOR INTERPRETING THE LEVELS OF ALIENATION SCALE AND ITS DIMENSIONS

	Alienation		Social Isolation	
Sr. No.	Range of z-Scores	Level of Alienation	Range of z-Scores	Level of Social Isolation
1	+2.31 and above	Very High Alienation	+2.41 and above	Very High Social Isolation
2	+1.53 to +2.30	High Alienation	+1.49 to +2.40	High Social Isolation
3	+0.75 to +1.52	Above Average Alienation	+0.58 to +1.48	Above Average Social Isolation
4	-0.71 to +0.74	Average Alienation	-0.81 to +0.57	Average Social Isolation
5	-1.50 to -0.72	Below Average Alienation	-1.27 to -0.82	Below Average Social Isolation
6	-2.28 to -1.51	Low Alienation	-2.19 to -1.28	Low Social Isolation
7	-2.29 and below	Very Low Alienation	-2.20 and below	Very Low Social Isolation
	Work Alienation		Cultural Estrangement	
Sr. No.	Range of z-Scores	Level of Work Alienation	Range of z-Scores	Level of Reach
1	+2.36 and above	Very High Work Alienation	+2.40 and above	Very High Cultural Estrangement
2	+1.49 to +2.35	High Work Alienation	+1.40 to +2.39	High Cultural Estrangement
3	+0.62 to +1.48	Above Average Work Alienation	+0.90 to +1.39	Above Average Cultural Estrangement
4	-0.69 to +0.61	Average Work Alienation	-0.60 to +0.89	Average Cultural Estrangement
5	-1.56 to -0.70	Below Average Work Alienation	-1.60 to -0.61	Below Average Cultural Estrangement
6	-2.43 to -1.57	Low Work Alienation	-2.10 to -1.61	Low Cultural Estrangement
7	-2.44 and below	Very Low Work Alienation	-2.11 and below	Very Low Cultural Estrangement

2.6 DESCRIPTION OF CHANGE PRONENESS INVENTORY:

Change Proneness is meant to be the readiness or inclination people have to alter or change their thoughts, attitudes, behaviour and feelings by not restraining themselves towards rigidity but towards having flexibility (Mukhopadhyay, 1980). For ascertaining the change proneness level of secondary school teachers, the Indian standardized tool entitled, “Change Proneness Inventory” was used in the present study. A total of 33 items assess the change proneness of secondary school teachers. A brief description of the change proneness inventory is as follows:

Name of Standardised Tool: Change Proneness Inventory (CPI)

Constructed by: M. Mukhopadhyay

Year of Construction: 2012

Availability: National Psychological Corporation (NPC), Agra

Country: India

Applicability: Secondary school teachers

Language: English

2.6.1 SCORING:

For the purpose of scoring, a five-point rating scale was used in the change proneness inventory constructed by Mukhopadhyay (2012). The change proneness inventory has 33 items for teachers. Each item of change proneness inventory is rated on five sequential points, (5=Always to 1= Never). The following table presents the scoring pattern of change proneness inventory’s test items.

TABLE 2.25
SCORING PROCEDURE OF CHANGE PRONENESS INVENTORY

Always	Frequently	Sometimes	Seldom	Never
5	4	3	2	1

2.6.2 RELIABILITY:

Before using change proneness inventory in the present investigation, it has been administered on a group of two-hundred teachers (secondary school). Value of

the reliability coefficient (Table 2.26) calculated on the respondents of this study was found to be as 0.895. The reliability co-efficient of all items of change proneness has acceptable value as per the recommendations by Hair et al. (2010). Therefore, change proneness inventory was finally approved for being used in the present investigation. A copy of the inventory has been placed in Appendix-D.

TABLE 2.26
RELIABILITY STATISTICS OF CHANGE PRONENESS INVENTORY

CONSTRUCT	N	CRONBACH'S ALPHA
Change Proneness	33	.895

Note: Cronbach's alpha indicated good internal reliability (George & Mallery, 2003)

2.6.3 VALIDITY:

According to the researchers Crocker and Algina (1986) as cited by the researchers Raykov and Mels (2009), the researchers of various fields such as social, behavioural and education are involved continuously in the construction, development and validation of varied components for the measurement of varying instruments such as, “questionnaires, self-reports, tests, subscales, testlets, inventories or scales”. In duration of this complex natured process, the researchers usually evaluate interrelationship indexes among the composite score and the different statements.

The refining of the constructs involving plenty of statistics reflect a significant relationship between the items of test and the construct's composite score. Speaking in specific terms, the “item-total correlation” represents magnitude to which a statement is relating to the remaining factors of the construct's sum. Therefore, 33 items of change proneness inventory were further assessed by computing the item-total correlations.

The calculation of the Pearson's coefficient of correlation was done by calculation of correlation among scores on each item and item-total on the change proneness inventory. The obtained values point to a good homogeneity among the items constructed to constitute the change proneness inventory. The item-total correlation calculated on the respondents of this study ranges in-between 0.198-0.771

($p < .01$). Following table no. 2.27 displays in detail the resultant correlation with respect to item-total of all thirty-three items of change proneness inventory.

TABLE 2.27
ITEM-TOTAL CORRELATION OF THE CHANGE PRONESS
INVENTORY

ITEM NO.	ITEM-TOTAL CORRELATION	ITEM NO.	ITEM-TOTAL CORRELATION
ITEM- 1	.225**	ITEM- 2	.503**
ITEM- 3	.485**	ITEM- 4	.633**
ITEM- 5	.620**	ITEM- 6	.467**
ITEM- 7	.600**	ITEM- 8	.555**
ITEM- 9	.584**	ITEM- 10	.649**
ITEM- 11	.544**	ITEM- 12	.557**
ITEM- 13	.597**	ITEM- 14	.685**
ITEM- 15	.636**	ITEM- 16	.743**
ITEM- 17	.596**	ITEM- 18	.611**
ITEM- 19	.471**	ITEM- 20	.436**
ITEM- 21	.487**	ITEM- 22	.251**
ITEM- 23	.601**	ITEM- 24	.771**
ITEM- 25	.542**	ITEM- 26	.602**
ITEM- 27	.290**	ITEM- 28	.372**
ITEM- 29	.658**	ITEM- 30	.657**
ITEM- 31	.336**	ITEM- 32	.392**
ITEM- 33	.198**		

**Significance level= .01

2.6.4 SCORING, NORMS AND INTERPRETATION:

The inventory consists of 33 items related to change proneness of teachers. Based on descriptive statistics, z-score norms have been prepared by applying formula (Raw Score-Mean/SD). The raw scores based on responses have a range of scores from 104 to 157 and presented in the table no. 2.28.

TABLE 2.28
Z-SCORE NORMS OF CHANGE PRONENESS INVENTORY

Raw-score	z-score	Raw-score	z-score
104	-2.97	105	-2.85
106	-2.74	107	-2.63
108	-2.52	109	-2.40
110	-2.29	111	-2.18
112	-2.07	113	-1.96
114	-1.84	115	-1.73
116	-1.62	117	-1.51
118	-1.39	119	-1.28
120	-1.17	121	-1.06
122	-0.94	123	-0.83
124	-0.72	125	-0.61
126	-0.50	127	-0.38
128	-0.27	129	-0.16
130	-0.05	131	+0.07
132	+0.18	133	+0.29
134	+0.40	135	+0.52
136	+0.63	137	+0.74
138	+0.85	139	+ 0.96
140	+1.08	141	+1.19
142	+1.30	143	+1.41
144	+1.53	145	+1.64
146	+1.75	147	+1.86
148	+1.98	149	+2.09
150	+2.20	151	+2.31
152	+2.42	153	+2.54
154	+2.65	155	+2.76
156	+2.87	157	+2.99

The norms for interpretation of the levels of change proneness in the change proneness inventory have been displayed in table 2.29.

TABLE 2.29
NORMS FOR INTERPRETING THE LEVELS OF CHANGE PRONENESS
INVENTORY

S.No.	Range of z-scores	Change Proneness Levels
1.	+2.21 and above	Very High Change Proneness
2.	+1.54 to +2.20	High Change Proneness
3.	+0.75 to +1.53	Above Average Change Proneness
4.	-0.72 to +0.74	Average Change Proneness
5.	-1.51 to -0.73	Below Average Change Proneness
6.	-2.29 to -1.52	Low Change Proneness
7.	-2.30 and below	Very Low Change Proneness

2.7 DESCRIPTION OF TEACHER EFFECTIVENESS SCALE:

Teacher effectiveness is the teachers' attainment of the needed competence in their roles and functions in the areas of preparation for teaching and planning, classroom management, knowledge of the subject-matter; its delivery and presentation including blackboard summary, teacher characteristics and interpersonal relations (Kulsum, 2011). For ascertaining the levels of teacher effectiveness (secondary school teachers), standardized Indian tool entitled, "Teacher Effectiveness Scale" was utilised. Brief description of the Teacher Effectiveness Scale" is as follows:

Name of Standardised Tool: Teacher Effectiveness Scale (TES)

Constructed by: Umme Kulsum

Year of Construction: 2011

Availability: National Psychological Corporation (NPC), Agra

Country: India

Applicability: Secondary school teachers

Language: English

There are five dimensions of the teacher effectiveness scale namely "Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations" of teachers. Brief description of dimensions of teacher effectiveness is described in the following sequence.

1. *“Preparation for Teaching and Planning”*: It has statements related to organizing, planning and preparing for teaching according to the objectives of course utilising various source materials.
2. *“Classroom Management”*: It has statements related to a teacher’s ability for successfully engaging in student motivation, communication, maintenance of classroom discipline within the democratic set-up framework and teaching-learning process evaluation.
3. *“Knowledge of Subject-matter etc.”*: It has statements related to teachers’ ability to acquire, interpret, retain and using subject contents which they are dealing within the situations of the classroom. The essential aspect of the teaching-learning process is the course contents’ delivery and course contents’ presentation including the blackboard work.
4. *“Teacher Characteristics”*: It has statements related to “teachers’ personality make- up and also its behavioural manifestations having acceptability levels or unacceptability levels in their profession of teaching”.
5. *“Interpersonal Relations”*: It has statements related to “teachers’ ability for adapting themselves for maintaining cordial relations with their students, their parents, colleagues and other people of the community with whom they interact as part of their profession”.

2.7.1 SELECTION OF STATEMENTS:

The teacher effectiveness scale has a total of sixty statements. The details of items dimension-wise (five dimensions) of the teacher effectiveness scale is shown in table 2.30.

TABLE 2.30 DIMENSIONS OF TEACHER EFFECTIVENESS SCALE

S.No.	Dimensions	Serial Number of Items	Total
1.	“Preparation for Teaching and Planning	2, 6, 11, 23, 27, 33, 37, 44, 49, 54, 58	11
2.	Classroom Management	3, 7, 12, 16, 20, 24, 28, 38, 45, 50, 51, 55, 56, 59	14
3.	Knowledge of Subject-matter etc.	1, 8, 14, 17, 29, 39, 46	7
4.	Teacher Characteristics	4, 9, 13, 18, 21, 25, 30, 31, 34, 35, 36, 40, 41, 47, 48, 52, 57	17
5.	Interpersonal Relations	5, 10, 15, 19, 22, 26, 32, 42, 43, 53, 60”	11

2.7.2 RELIABILITY STATISTICS:

To measure the internal consistency, the alpha coefficient is regularly used. For assessing the total teacher effectiveness scale's internal consistency, "reliability was measured by the interpretation of the value obtained of Cronbach's Alpha (Cronbach, 1951)". Cronbach's alpha for the teacher effectiveness scale's final item calculated on the respondents of this study was found out to be as 0.871 (Table 2.31). This resultant value illustrates an internal consistency in teacher effectiveness scale items with a high degree as per the interpretations made by Gliem and Gilem (2003) who asserted that the "Alpha reliability coefficient" has a range of 0-1. But, the alpha reliability coefficient has no lower limit and the closer the alpha value is towards 1, the greater will be the measure's internal consistency. Therefore, the analysis of the scale reliability suggests that there is internal consistency in teacher effectiveness scale. A copy of the scale has been placed in Appendix A.

TABLE 2.31
TEACHER EFFECTIVENESS SCALE'S RELIABILITY STATISTICS

·Constructs	·Cronbach's Alpha	N
"Preparation for Teaching and Planning	0.526	11
Classroom Management	0.534	14
Knowledge of Subject-matter etc.	0.722	7
Teacher Characteristics	0.601	17
Interpersonal Relations"	0.851	11
Teacher Effectiveness Scale	0.871	60

Note: Cronbach's alpha of teacher effectiveness dimensions varies from moderate to high range. Overall scale indicated good internal reliability (George & Mallery, 2003).

2.7.3 CONVERGENT VALIDITY:

The convergent validity of the teacher effectiveness scale is demonstrated by inter-correlation among different dimensions of it. When interrelationship of overall score and dimensions are calculated then it is known to be as the convergent validity as recommended by Scholte et al. (2007). The results revealed high levels of significant and positive correlations among all the five dimensions of "Teacher effectiveness viz., preparation for teaching and planning, classroom management,

knowledge of subject-matter etc., teacher characteristics, interpersonal relations” with the total Teacher effectiveness. The convergent validity calculated on the respondents of this study ranges in-between 0.239-0.787 ($p < .01$). Estimations obtained indicate good construct validity of the measure. Therefore, the present teacher effectiveness scale has an adequate inter-dimension homogeneity. The values of the convergent validity of the teacher effectiveness scale is presented in Table 2.32.

TABLE 2.32
CONVERGENT VALIDITY OF THE TEACHER EFFECTIVENESS SCALE

Constructs	Teacher Effectiveness	Preparation of Teaching and Planning	Classroom Management	Knowledge of Subject-matter etc.	Teacher Characteristics	Interpersonal Relations
Teacher Effectiveness	1	.630**	.665**	.716**	.687**	.787**
Preparation of Teaching and Planning	.630**	1	.239**	.569**	.373**	.593**
Classroom Management	.665**	.239**	1	.340**	.656**	.607**
Knowledge of Subject-matter etc.	.716**	.569**	.340**	1	.443**	.734**
Teacher Characteristics	.687**	.373**	.656**	.443**	1	.637**
Interpersonal Relations	.787**	.593**	.607**	.734**	.637**	1

Note: ** Significance level= .01

2.7.4 SCORING, NORMS AND INTERPRETATION:

The scale consists of 60 items related to overall teacher effectiveness and dimensions-wise i.e. “preparation for teaching and planning, classroom management, knowledge of subject-matter etc., teacher characteristics, interpersonal relations” have 11, 14, 7, 17 and 11 items respectively. The range of raw score calculated on the present scale on the basis of descriptive statistics, z-score norms based on responses has been prepared by applying formula (Raw Score-Mean/SD). The range of raw scores for teacher effectiveness scale is in the range of 454 to 505, presented in table 2.33. Norms for interpretation of the levels of “Teacher Effectiveness Scale” is displayed in table no. 2.34.

TABLE 2.33 z-SCORE NORMS OF TEACHER EFFECTIVENESS SCALE

TEACHER EFFECTIVENESS								PTP				CM				TC									
Raw Score	z-Score	Raw Score	z-Score	Raw Score	z-Score	Raw Score	z-Score	Raw Score	z-Score	Raw Score	z-Score	Raw Score	z-Score	Raw Score	z-Score	Raw Score	z-Score	Raw Score	z-Score	Raw Score	z-Score	Raw Score	z-Score		
454	-2.97	455	-2.86	456	-2.75	457	-2.64	78	-2.70	79	-2.22	108	-2.87	109	-2.43	128	-2.94	129	-2.72	130	-2.50	131	-2.27		
458	-2.53	459	-2.41	460	-2.30	461	-2.19	80	-1.73	81	-1.25	110	-1.98	111	-1.54	132	-2.05	133	-1.83	134	-1.60	135	-1.38		
462	-2.08	463	-1.96	464	-1.85	465	-1.74	82	-0.77	83	-0.29	112	-1.10	113	-0.66	136	-1.16	137	-0.93	138	-0.71	139	-0.49		
466	-1.63	467	-1.52	468	-1.40	469	-1.29	84	+0.19	85	+0.68	114	-0.22	115	+0.23	140	-0.26	141	-0.04	142	+0.18	143	+0.41		
470	-1.18	471	-1.07	472	-0.96	473	-0.84	86	+1.16	87	+1.64	116	+0.67	117	+1.11	144	+0.63	145	+0.85	146	+1.08	147	+1.30		
474	-0.73	475	-0.62	476	-0.51	477	-0.39	88	+2.12	89	+2.61	118	+1.55	119	+1.99	148	+1.52	149	+1.75	150	+1.97	151	+2.19		
478	-0.28	479	-0.17	480	-0.06	481	+0.05					120	+2.44	121	+2.88	152	+2.42	153	+2.64	154	+2.86				
482	+0.17	483	+0.28	484	+0.39	485	+0.50	KSM				IR													
486	+0.61	487	+0.73	488	+0.84	489	+0.95	Raw Score	z-Score	Raw Score	z-Score	Raw Score	z-Score	Raw Score	z-Score	Raw Score	z-Score								
490	+1.06	491	+1.18	492	+1.29	493	+1.40	50	-2.77	51	-2.27	77	-2.78	78	-2.46	79	-2.14								
494	+1.51	495	+1.62	496	+1.74	497	+1.85	52	-1.77	53	-1.27	80	-1.82	81	-1.50	82	-1.19								
498	+1.96	499	+2.07	500	+2.18	501	+2.30	54	-0.76	55	-0.26	83	-0.87	84	-0.55	85	-0.23								
502	+2.41	503	+2.52	504	+2.63	505	+2.75	56	+0.24	57	+0.74	86	+0.08	87	+0.40	88	+0.72								
506	+2.86	507	+2.97					58	+1.25	59	+1.75	89	+1.04	90	+1.36	91	+1.67								
								60	+2.25	60	+2.25	92	+1.99	93	+2.31	94	+2.63								

NOTE: PTP= “Preparation for teaching and planning, CM= Classroom management, KSM= Knowledge of subject-matter etc., TC= Teacher characteristics and IR= Interpersonal relations”

TABLE 2.34 NORMS FOR INTERPRETING THE LEVELS OF TEACHER EFFECTIVENESS SCALE AND ITS DIMENSIONS

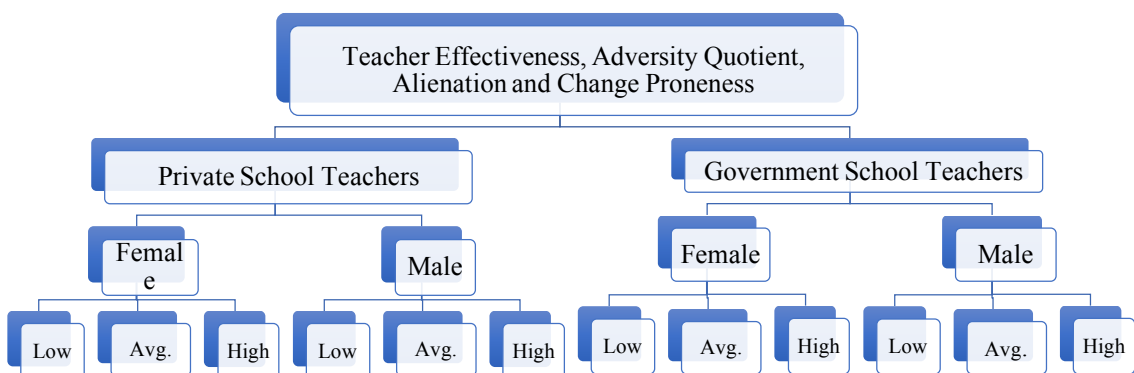
		·Teacher Effectiveness		·Preparation for Teaching and Planning	
·Sr. No.	·Range of z-Scores	·Level of Teacher Effectiveness	·Range of z-Scores	·Level of Preparation of Teaching and planning	
1	+2.31 and above	Very High Teacher Effectiveness	+2.13 and above	Very High Preparation of Teaching and planning	
2	+1.52 to +2.30	High Teacher Effectiveness	+1.65 to +2.12	High Preparation of Teaching and planning	
3	+0.74 to +1.51	Above Average Teacher Effectiveness	+0.69 to +1.64	Above Average Preparation of Teaching and planning	
4	-0.73 to +0.73	Average Teacher Effectiveness	-0.77 to +0.68	Average Preparation of Teaching and planning	
5	-1.52 to -0.74	Below Average Teacher Effectiveness	-1.73 to -0.78	Below Average Preparation of Teaching and planning	
6	-2.30 to -1.53	Low Teacher Effectiveness	-2.22 to -1.74	Low Preparation of Teaching and planning	
7	-2.31 and below	Very Low Teacher Effectiveness	-2.23 and below	Very Low Preparation of Teaching and planning	
		·Classroom Management		·Knowledge of Subject-matter etc.	
·Sr. No.	·Range of z-Scores	·Level of Classroom Management	·Range of z-Scores	·Level of Knowledge of Subject-matter etc.	
1	+2.45 and above	Very High Classroom Management	+2.26 and above	Very High Knowledge of Subject-matter etc.	
2	+1.56 to +2.44	High Classroom Management	+1.76 to +2.25	High Knowledge of Subject-matter etc.	
3	+0.68 to +1.55	Above Average Classroom Management	+0.75 to +1.75	Above Average Knowledge of Subject-matter etc.	
4	-0.66 to +0.67	Average Classroom Management	-0.76 to +0.74	Average Knowledge of Subject-matter etc.	
5	-1.54 to -0.67	Below Average Classroom Management	-1.27 to -0.77	Below Average Knowledge of Subject-matter etc.	
6	-2.43 to -1.55	Low Classroom Management	-2.27 to -1.28	Low Knowledge of Subject-matter etc.	
7	-2.44 and below	Very Low Classroom Management	-2.28 and below	Very Low Knowledge of Subject-matter etc.	
		·Teacher Characteristics		·Interpersonal Relations	
·Sr. No.	·Range of z-Scores	·Level of Teacher Characteristics	·Range of z-Scores	·Level of Interpersonal Relations	
1	+2.20 and above	Very High Teacher Characteristics	+2.32 and above	Very High Interpersonal Relations	
2	+1.53 to +2.19	High Teacher Characteristics	+2.37 to +2.31	High Interpersonal Relations	
3	+0.86 to +1.52	Above Average Teacher Characteristics	+0.73 to +1.36	Above Average Interpersonal Relations	
4	-0.71 to +0.85	Average Teacher Characteristics	-0.87 to +0.72	Average Interpersonal Relations	
5	-1.60 to -0.72	Below Average Teacher Characteristics	-1.50 to -0.88	Below Average Interpersonal Relations	
6	-2.27 to -1.61	Low Teacher Characteristics	-2.14 to -1.51	Low Interpersonal Relations	
7	-2.28 and below	Very Low Teacher Characteristics	-2.15 and below	Very Low Interpersonal Relations	

2.8 RESEARCH DESIGN OF THE STUDY:

Objective-wise, the following research designs are adopted for conducting this study, which is divided in the following sequence:

- *OBJECTIVE 1. To study the levels of teacher effectiveness, adversity quotient, alienation and change proneness among teachers:* Percentage analysis has been done on the scores of the respondent teachers to find out their levels i.e., “Very High, High, Above Average, Average, Below Average, Low and Very Low Level” of teacher effectiveness, adversity quotient, alienation and change proneness.
- *OBJECTIVE 2. To find the difference in teacher effectiveness, adversity quotient, alienation and change proneness of teachers with respect to type of school, gender and experience:* Three-way ANOVA (2x2x3) factorial design has been implemented on scores of “Teacher Effectiveness, Adversity Quotient, Alienation and Change Proneness” of teachers wherein type of school, gender and experience are studied and they are classified into private and government; female and male; low (experience < five years), average (experience = five-ten years) and high (experience > ten years) respectively. The illustrative layout format of design is displayed in figure no. 2.4.

FIGURE 2.4
(2 X 2 X 3) FACTORIAL ANOVA RESEARCH DESIGN

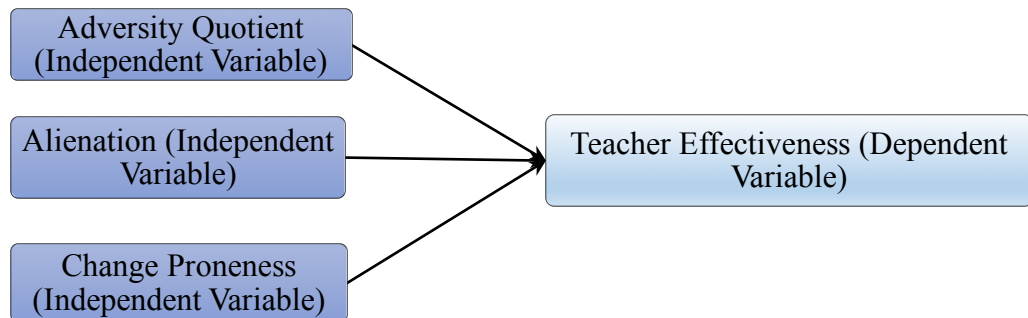


Note: Low= (Less than five years of Experience), Avg.= Average (Five to ten years of Experience), High= (More than ten years of experience)

- *OBJECTIVE 3. To study the relationship of teacher effectiveness with adversity quotient, alienation and change proneness of teachers:* A correlational research design is applied for finding out the relationship of teacher effectiveness with adversity quotient, alienation, change proneness of teachers.
- *OBJECTIVE 4. To study the role of adversity quotient, alienation and change proneness on teacher effectiveness of teachers:* A linear research design for multiple regression analysis is applied to study the role of adversity quotient, alienation, change proneness on teacher effectiveness of teachers. The representative layout format of design has been displayed in figure no. 2.5.

FIGURE 2.5

**RESEARCH DESIGN FOR REGRESSION ANALYSIS TO STUDY THE
ROLE OF ADVERSITY QUOTIENT, ALIENATION, CHANGE PRONENESS
ON TEACHER EFFECTIVENESS OF TEACHERS**



2.9 STATISTICAL TECHNIQUES:

In the purview of the different objectives in this study, collected data was analysed using Descriptive Statistics, Reliability analysis, Bivariate analysis etc. Software packages like IBM SPSS-23 and IBM AMOS-23 were used for computerized data analysis. For the data analysis, the following are techniques (statistical) employed:

1. Descriptive statistics like “Mean; Standard deviation and Kolmogorov-Smirnov test; Shapiro-Wilk test for normality” have been applied for understanding the data’s nature.

2. Descriptive statistics like percentage is applied on the scores of the respondent teachers to find out their levels i.e., “Very High, High, Above Average, Average, Below Average, Low and Very Low Level” of teacher effectiveness, adversity quotient, alienation and change proneness.
3. Interaction effect ANOVA has been used to find significant differences in teacher effectiveness, adversity quotient, alienation and change proneness of teachers with respect to “type of school, gender and experience” classified into private and government; female and male; low (experience < five years), average (experience = five-ten years) and high (experience > ten years) respectively.
4. Tukey’s Post-Hoc HSD Test is used for finding the significant difference in-between teachers on teacher effectiveness, adversity quotient, alienation and change proneness with respect to “experience”.
5. For finding significant differences between various sub-groups after interaction effect ANOVA, t-test has been applied.
6. To analyse the relationship of “Teacher Effectiveness” with adversity quotient, alienation, change proneness of teachers, correlation method viz. Karl Pearson’s coefficient method has been utilised.
7. For studying role of adversity quotient, alienation, change proneness on teacher effectiveness of teachers, regression analysis has been employed.

CHAPTER III

ANALYSIS AND INTERPRETATION

3.1 INTRODUCTION

The present chapter propounds on the “analysis and interpretation” of collected data to achieve formulated objectives and validate the hypothesis of the present study by applying suitable statistical techniques. The data were collected according to the predetermined method and procedure. This chapter constitutes the various statistical tools for the analysis of data. The data was analysed by applying percentage statistics, interaction effect ANOVA, multiple correlation, regression analysis for realising the following objectives and hypotheses of the present study:

- ***Objectives of the Study:***

1. To study the levels of teacher effectiveness, adversity quotient, alienation and change proneness among teachers.
2. To find the difference in teacher effectiveness, adversity quotient, alienation and change proneness of teachers with respect to type of school, gender and experience.
3. To study the relationship of teacher effectiveness with adversity quotient, alienation and change proneness of teachers.
4. To study the role of adversity quotient, alienation and change proneness on teacher effectiveness of teachers.

- ***Hypotheses of the Study:***

I. There exists no significant difference in teacher effectiveness, adversity quotient, alienation and change proneness of teachers with respect to type of school, gender and experience.

H_{0,1} There exists no significant difference in teacher effectiveness of teachers with respect to type of school.

H_{0,2} There exists no significant difference in teacher effectiveness of teachers with respect to gender.

H_{0,3} There exists no significant difference in teacher effectiveness of teachers with respect to experience.

- H0_{1.4} There exists no significant interaction effect of type of school and gender on teacher effectiveness of teachers.
- H0_{1.5} There exists no significant interaction effect of type of school and experience on teacher effectiveness of teachers.
- H0_{1.6} There exists no significant interaction effect of gender and experience on teacher effectiveness of teachers.
- H0_{1.7} There exists no significant interaction effect of type of school, gender and experience on teacher effectiveness of teachers.
- H0_{1.8} There exists no significant difference in adversity quotient of teachers with respect to type of school.
- H0_{1.9} There exists no significant difference in adversity quotient of teachers with respect to gender.
- H0_{1.10} There exists no significant difference in adversity quotient of teachers with respect to experience.
- H0_{1.11} There exists no significant interaction effect of type of school and gender on adversity quotient of teachers.
- H0_{1.12} There exists no significant interaction effect of type of school and experience on adversity quotient of teachers.
- H0_{1.13} There exists no significant interaction effect of gender and experience on adversity quotient of teachers.
- H0_{1.14} There exists no significant interaction effect of type of school, gender and experience on adversity quotient of teachers.
- H0_{1.15} There exists no significant difference in alienation of teachers with respect to type of school.
- H0_{1.16} There exists no significant difference in alienation of teachers with respect to gender.
- H0_{1.17} There exists no significant difference in alienation of teachers with respect to experience.
- H0_{1.18} There exists no significant interaction effect of type of school and gender on alienation of teachers.
- H0_{1.19} There exists no significant interaction effect of type of school and experience on alienation of teachers.

H0_{1.20} There exists no significant interaction effect of gender and experience on alienation of teachers.

H0_{1.21} There exists no significant interaction effect of type of school, gender and experience on alienation of teachers.

H0_{1.22} There exists no significant difference in change proneness of teachers with respect to type of school.

H0_{1.23} There exists no significant difference in change proneness of teachers with respect to gender.

H0_{1.24} There exists no significant difference in change proneness of teachers with respect to experience.

H0_{1.25} There exists no significant interaction effect of type of school and gender on change proneness of teachers.

H0_{1.26} There exists no significant interaction effect of type of school and experience on change proneness of teachers.

H0_{1.27} There exists no significant interaction effect of gender and experience on change proneness of teachers.

H0_{1.28} There exists no significant interaction effect of type of school, gender and experience on change proneness of teachers.

II. There exists no significant relationship of teacher effectiveness with adversity quotient, alienation, change proneness of teachers.

H0_{II.1} There exists no significant relationship of teacher effectiveness with adversity quotient of teachers.

H0_{II.2} There exists no significant relationship of teacher effectiveness with alienation of teachers.

H0_{II.3} There exists no significant relationship of teacher effectiveness with change proneness of teachers.

III. There is no role of adversity quotient, alienation, change proneness on teacher effectiveness of teachers.

3.2 DATA SCREENING

In quantitative research despite adapting careful procedures in methodology, design, sampling, instrument selection etc., the occurrence of errors is still a possibility. Before proceeding with data analysis, the investigator must rigorously

analyse the data for the identification of missing values and outliers (responses falling outside the range). According to Van den Broeck et al. (2005), data cleaning is a process of quality assurance that facilitates a researcher with screening/monitoring, diagnosing and eliminating abnormalities of a data set. Due to its diverse benefits, data cleaning has attained substantial attention from researchers (Hadi, 1992).

The main purpose of data cleaning is to identify and remove the errors and minimize their effect on the obtained results. In the present study, prior to analysis and result generation, data was rigorously analysed for missing values using IBM SPSS Version-23. Various descriptive statistics like skewness, kurtosis, normality plots, histogram, Q-Q plots, box plots were studied and Mahalanobis test was done to identify the missing values and removing of outliers from the data. During the data cleaning process, forty eight outliers were detected and removed. Further Kolmogorov-Smirnov and Shapiro-Wilk tests were calculated to ensure the normality of the data. Calculated statistics for different normality tests with a sample size of five hundred secondary school teachers has been presented in the table 3.1.

TABLE 3.1 KOLMOGOROV-SMIRNOV AND SHAPIRO-WILK TESTS OF NORMALITY OF STUDY VARIABLES ADVERSITY QUOTIENT, ALIENATION, CHANGE PRONENESS, TEACHER EFFECTIVENESS

Study variables	K-S ^a Test			Shapiro-Wilk Test		
	Statistic	df	Sig.	Statistic	df	Sig.
Adversity Quotient	0.033	500	.200*	0.998	500	0.729
Alienation	0.032	500	.200*	0.997	500	0.430
Change Proneness	0.034	500	.200*	0.997	500	0.411
Teacher Effectiveness	0.027	500	.200*	0.998	500	0.79

* This is a lower bound of the true significance.

^a Lilliefors Significance Correction

Note: p-values of study variables >0.05 (Threshold)

The powerful tests for the assessment of normality are Kolmogorov-Smirnov (K-S^a) test (Thode, 2002) and Shapiro-Wilk test (Thode, 2002; Peat & Barton, 2005). The table 3.1 revealed that the p-value of study variables i.e. teacher effectiveness, adversity quotient, alienation and change proneness in the Kolmogorov-Smirnov (K-S^a) test and Shapiro-Wilk test is greater than the threshold value of 0.05, providing sufficient evidence for data normality. Therefore, it is clear from the statistics calculated in the table 3.1 that the researcher can proceed for further analysis of the data.

3.2 DESCRIPTIVE ANALYSIS

- I. **Objective:** To study the levels of teacher effectiveness, adversity quotient, alienation and change proneness among teachers.

3.2.1 TEACHER EFFECTIVENESS (DEPENDENT VARIABLE) AMONG TEACHERS

The present section deals with analysis related to teacher effectiveness of secondary school teachers. It comprises of levels of “Teacher Effectiveness” in terms of their total strength in numbers at each level as well as in terms of percentage along with graphical representation of the same. Table 3.2 presents the percentage-wise analysis of various levels of teacher effectiveness among secondary school teachers.

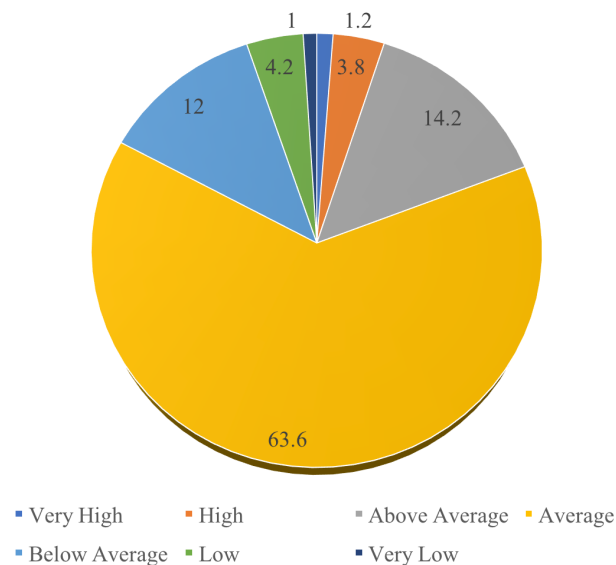
TABLE 3.2
PERCENTAGE-WISE LEVELS OF TEACHER EFFECTIVENESS AMONG TEACHERS

S.No.	Levels of Teacher Effectiveness	N	%age
1.	Very High Teacher Effectiveness	06	1.2
2.	High Teacher Effectiveness	19	3.8
3.	Above Average Teacher Effectiveness	71	14.2
4.	Average Teacher Effectiveness	318	63.6
5.	Below Average Teacher Effectiveness	60	12
6.	Low Teacher Effectiveness	21	4.2
7.	Very Low Teacher Effectiveness	05	01
Total		500	100%

It is clear from table 3.2 that 1.2% (n=07) secondary school teachers possess a very high teacher effectiveness level. On the other hand, about 3.8% (n=19) of secondary school teachers possess a high teacher effectiveness level. Further, it is obvious from Table 3.2 that 14.2% (n=71) secondary school teachers possess above average teacher effectiveness level; 63.6% (n=318) secondary school teachers possess average level of teacher effectiveness; 12% (n=60) secondary school teachers possess below average teacher effectiveness level and 4.2% (n=21) secondary school teachers possess low level of teacher effectiveness.

It is also revealed that at very low teacher effectiveness level, there is only 1% (n=05) secondary school teachers. Therefore, it may be deduced that majority of teachers exhibit “Average” teacher effectiveness level followed by “Above Average, Below Average, Low, High, Very High and Very Low” teacher effectiveness levels. The graphical figure 3.1 indicates the different teacher effectiveness levels.

FIGURE 3.1
GRAPHICAL REPRESENTATION OF LEVELS OF TEACHER EFFECTIVENESS AMONG TEACHERS



3.2.1.1 DIMENSION-WISE LEVELS OF TEACHER EFFECTIVENESS AMONG TEACHERS

This section is relating to dimension-wise levels of “Teacher effectiveness viz. Preparation for teaching and planning, Classroom management, Knowledge of

subject-matter etc., Teacher characteristics and Interpersonal relations” of secondary school teachers. An analysis of dimension-wise teacher effectiveness levels is given in Table 3.3.

TABLE 3.3
DIMENSION-WISE LEVELS OF TEACHER EFFECTIVENESS AMONG
TEACHERS

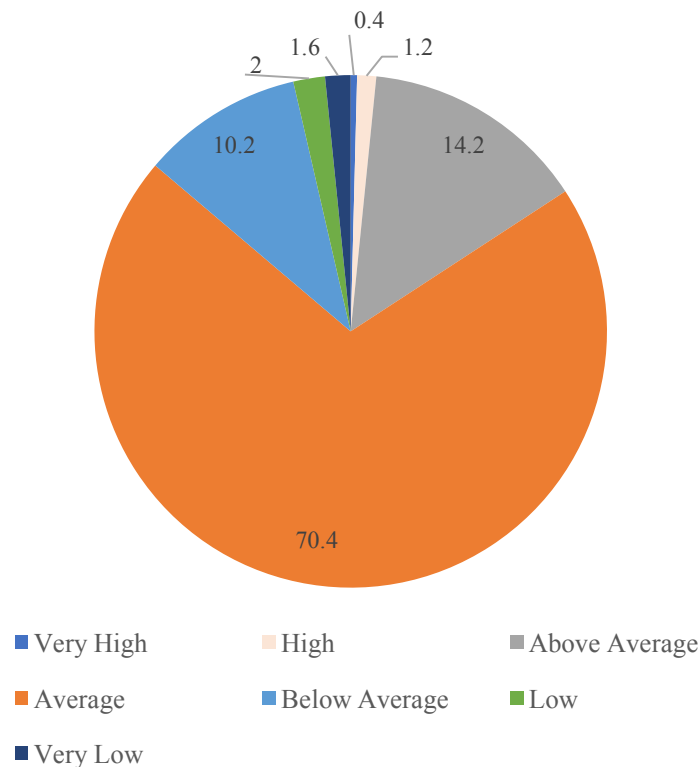
		DIMENSIONS									
		PTP		CM		KSM		TC		IR	
S. No	Levels	N	%	N	%	N	%	N	%	N	%
1	Very High	2	0.4	0	0	0	0	0	0	18	3.6
2	High	6	1.2	2	0.4	0	0	2	0.4	24	4.8
3	Above Average	71	14.2	3	0.6	99	19.8	88	17.6	13	2.6
4	Average	352	70.4	415	83	329	65.8	317	63.4	384	76.8
5	Below Average	51	10.2	38	7.6	39	7.8	65	13	39	7.8
6	Low	10	2	28	5.6	28	5.6	20	4	17	3.4
7	Very Low	8	1.6	14	2.8	5	1	8	1.6	5	1
Total		500	100	500	100	500	100	500	100	500	100

Note: “PTP= Preparation for teaching and planning, CM= Classroom management, KSM= Knowledge of subject-matter etc., TC= Teacher characteristics, IR= Interpersonal relations”

Table 3.3 reveals that 0.4% (n=02) secondary school teachers possess a very high level of preparation for teaching and planning. It may also be analysed from Table 3.3 that 1.2% (n=6) secondary school teachers possess a high level of preparation for teaching and planning. Similarly, 14.2% (n=71) secondary school teachers possess above average level of preparation for teaching and planning; 70.4% (n=352) secondary school teachers possess an average level of preparation for teaching and planning; 10.2% (n=51) secondary school teachers possess below average level of preparation for teaching and planning and 2% (n=10) teachers exhibit low preparation for teaching and planning level. In very low level of preparation for teaching and planning, there are 1.6% (n=08) secondary school teachers.

Results suggest that majority of teachers possess an average level in preparation for teaching and planning followed by “Above Average, Below Average, Low, Very Low, High, Very High” levels of preparation for teaching and planning. Figure 3.2 displays different levels of preparation for teaching and planning among secondary school teachers.

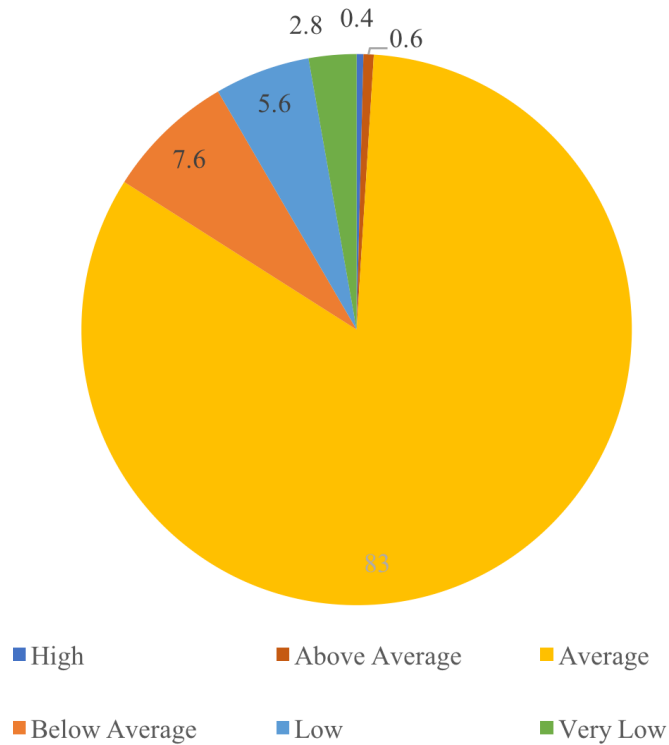
FIGURE 3.2
GRAPHICAL REPRESENTATION OF LEVELS OF “PREPARATION FOR TEACHING AND PLANNING” AMONG TEACHERS



It is clear from table 3.3 that 0.4% (n=02) secondary school teachers possess high level of classroom management; 0.6% (n=03) secondary school teachers possess above average level of classroom management; 83% (n=415) secondary school teachers possess average level of classroom management; 7.6% (n=38) secondary school teachers possess below average level in classroom management. Whereas, 5.6% (n=28) teachers fall at low classroom management level; 2.8% (n=14) teachers exhibit very low classroom management level.

The observation of the results suggests that the secondary school teachers possess average level of classroom management then “Below Average, Low, Very Low, Above Average, High” levels of classroom management. The figure 3.3 portrays the different levels of classroom management dimension of teacher effectiveness among secondary school teachers.

FIGURE 3.3
GRAPHICAL REPRESENTATION OF LEVELS OF “CLASSROOM
MANAGEMENT” AMONG TEACHERS



It is further obvious from table 3.3 that in “Knowledge of subject-matter etc.”, 19.8% (n=99) secondary school teachers perceive above average level; 65.8% (n=329) secondary school teachers perceive an average level; 7.8% (n=39) secondary school teachers perceive below average level; 5.6% (n=28) teachers perceive a low level and only about 1% (n=05) teachers perceive a very low level respectively.

The results point out that maximum number and percentage of secondary school teachers perceive an average level followed by “Above Average, Below Average, Low and Very Low” levels respectively.

Figure 3.4 illustrates different levels of “knowledge of subject-matter etc.” among secondary school teachers graphically.

FIGURE 3.4
**REPRESENTATION OF LEVELS OF “KNOWLEDGE OF SUBJECT-
MATTER ETC.” AMONG TEACHERS GRAPHICALLY**

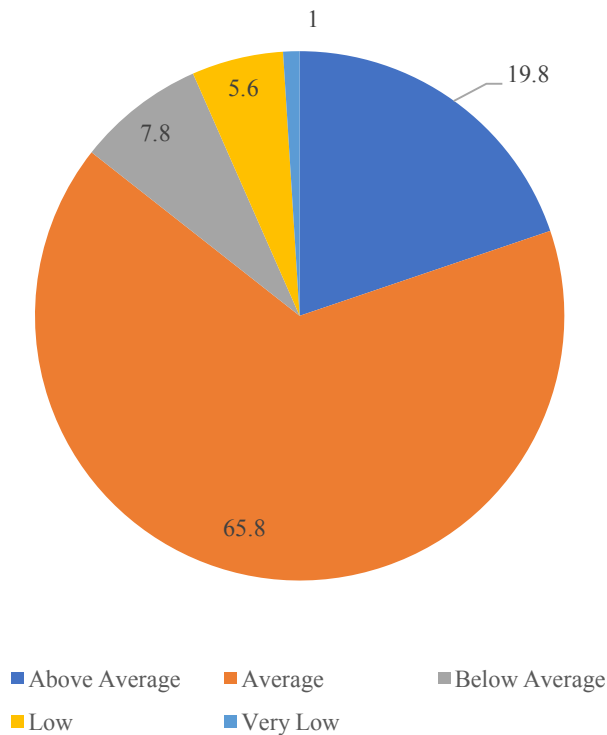
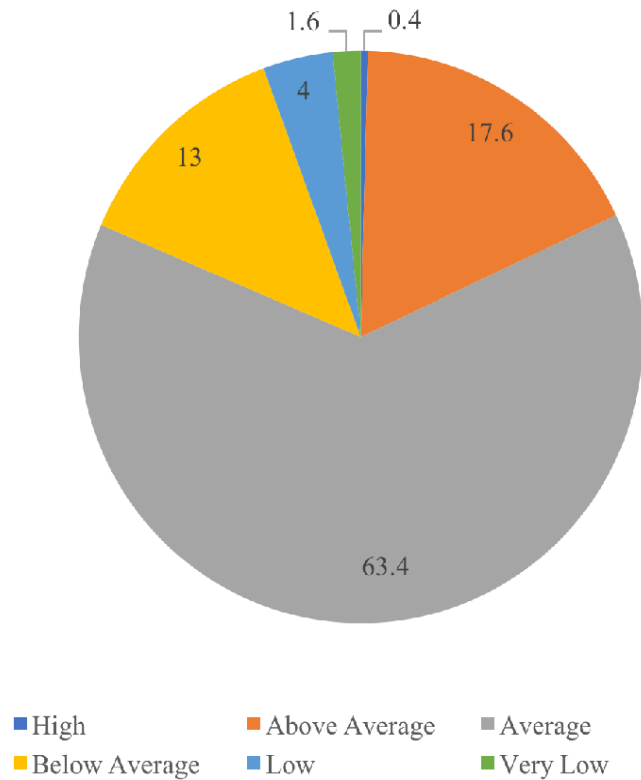


Table 3.3 discloses that 0.4% (n=02) secondary school teachers possess a high level of teacher characteristics; 17.6% (n=88) secondary school teachers possess above average level of teacher characteristics; 63.4% (n=317) secondary school teachers possess an average level of teacher characteristics and 13% (n=65) secondary school teachers possess below average level of teacher characteristics. It may also be analysed from Table 3.3 that 4% (n=20) teachers have low teacher characteristics level. Also, at about 1.6% (n=8) teachers are falling in very low teacher characteristics level.

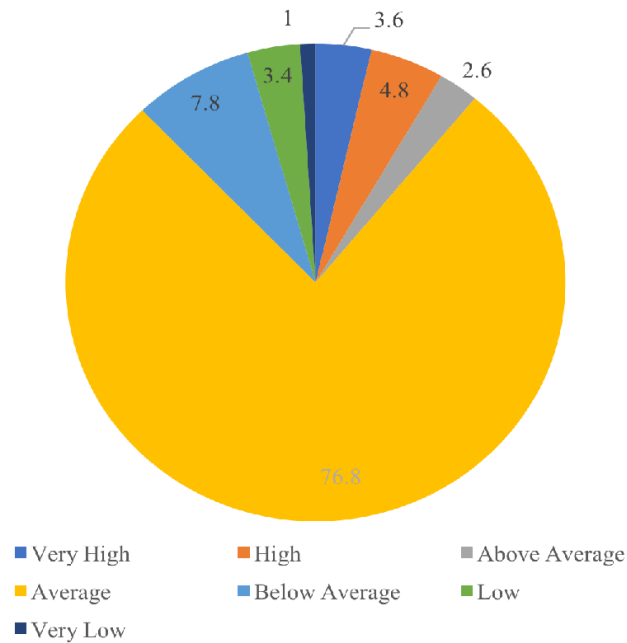
Resultant values of percentage analysis of teacher characteristics of secondary school teachers indicate that most of the secondary school teachers possess an average level in teacher characteristics followed by “Above Average, Below Average, Low, High, Very Low” levels of teacher characteristics. The figure 3.5 reveals the different levels of teacher characteristics among secondary school teachers.

FIGURE 3.5
GRAPHICAL REPRESENTATION OF LEVELS OF TEACHER
CHARACTERISTICS AMONG TEACHERS



It is comprehensible by observing table 3.3 that around 3.6% (n=18) teachers have very high interpersonal relations level, 4.8% (n=24) teachers depict high interpersonal relations level; 2.6% (n=13) secondary school teachers are having above average level of interpersonal relations; 76.8% (n=384) secondary school teachers possess an average level of interpersonal relations; 7.8% (n=39) secondary school teachers possess below average level. Whereas, about 3.4% (n=17) teachers exhibit low interpersonal relations level and only 1% (n=05) teachers have very low interpersonal relations level. The observation of the resultant values as a product of percentage analysis of interpersonal relations as factor of teacher effectiveness insinuates that maximum number and percentage of secondary school teachers possess an average level in interpersonal relations then “Below Average, High, Very High, Low, Above Average, Very Low” levels of interpersonal relations. Figure 3.6 displays different levels of interpersonal relations among secondary school teachers.

FIGURE 3.6
GRAPHICAL REPRESENTATION OF LEVELS OF INTERPERSONAL
RELATIONS AMONG TEACHERS



DISCUSSION

Therefore, the percentage analysis suggests that most of the secondary school teachers possess an average teacher effectiveness level followed by “Below Average, Above Average, High, Low, Very High and Very Low” levels of teacher effectiveness. It comes to fore that at average level, the teachers of this study are effective in discharging their duties as a teacher and they are effective in moderation in making a better environment of teaching-learning process inside and outside the classroom and also in maintaining relationships with others they deal with in regards to their occupation. Kagathala (2002) studied “teacher effectiveness of secondary school teachers in Gujarat and found their level of teacher effectiveness to be at average level”. Vishalakshi (2013) in her study of ineffective and effective teachers found that about 2/3rd of the teachers in the study sample were effective teachers and about 1/3rd of teachers were found to be ineffective teachers. When discussing the results of percentage analysis with regards to all the teacher effectiveness’ dimensions, the results suggest that the majority of teachers possess an average level

in preparation for teaching and planning followed by “Above Average, Below Average, Low, Very Low, High, Very High” levels of preparation for teaching and planning. This indicates that in moderation these teachers plan well in advance during and after their teaching process as well as in moderation, they prepare themselves for better discharging of their duties as a teacher during the teaching-learning process.

Observation of results also suggests that secondary school teachers possess average level in classroom management in majority followed by “Below Average, Low, Very Low, Above Average, High” levels of classroom management. This points out that the majority of teachers on an average level basis can manage their classrooms and maintain a democratic setup inside and outside their classrooms. The resultant values of percentage analysis are also indicating that the maximum number and percentage of the secondary school teachers perceive an average knowledge of subject-matter etc. level followed by “Above Average, Below Average, Low and Very Low” levels respectively. This suggests that in the majority, in moderation, the teachers have a fair knowledge of the matter of subject they teach, have fairly average good delivery and presentation of subject-matter in the classroom and also, they are moderately good in their blackboard work and summary in the classroom situation.

Results of the percentage analysis also disclose that most secondary school teachers possess an average level followed by “Above Average, Below Average, Low, High, Very Low” levels of teacher characteristics. In the majority, this indicates that the teachers have moderate characteristics that a teacher should possess. The observation of the results also suggests that the maximum secondary school teachers possess an average level followed by “Below Average, High, Very High, Low, Above Average, Very Low” levels of interpersonal relations.

This is pointing towards the fact that in majority, these teachers in moderation maintain good relations with their colleagues, seniors, people of community, parents and other stakeholders related to their occupation. They maintain cordial relationships in moderation with students and others. Kaur (2008) revealed that secondary school teachers’ “teacher effectiveness” was at an average level. Kaur (2013) disclosed that the majority of women teachers possess an average level followed by “Low Level,

High Level, Very Low Level and Very High” levels of teacher effectiveness. Paite (2014) studied the levels of teacher effectiveness in teachers teaching in high schools in Lunglei (Mizoram), India and it was found that teachers in majority, are falling at average teacher effectiveness level. A small percentage of high school teachers fell in the low and high levels of teacher effectiveness.

3.2.2 ADVERSITY QUOTIENT (INDEPENDENT VARIABLE) AMONG TEACHERS

This section reveals the analysis related to the adversity quotient of secondary school teachers. Table 3.4 presents a percentage-wise analysis of levels of adversity quotient among secondary school teachers.

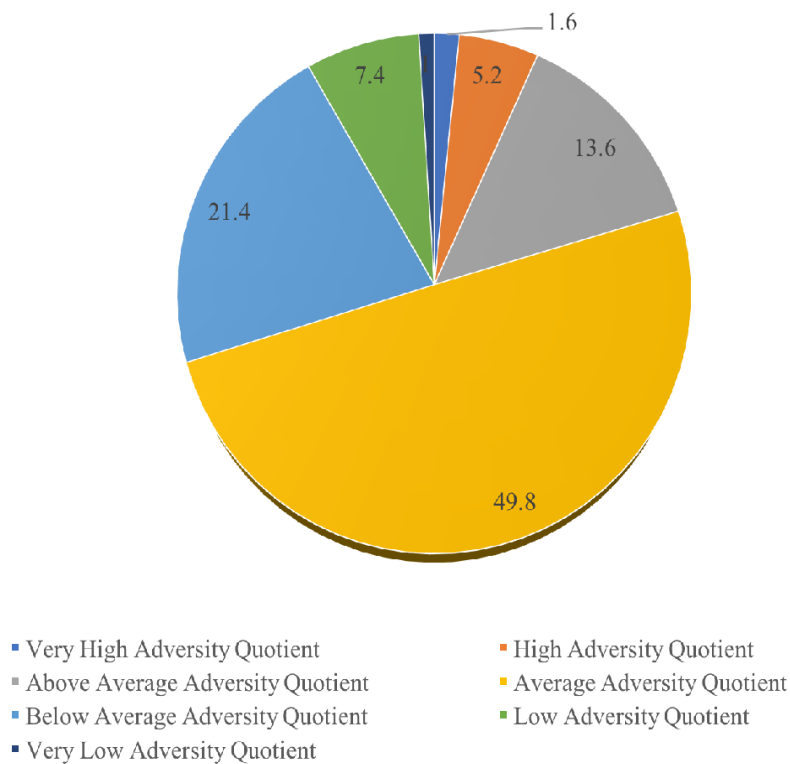
TABLE 3.4
PERCENTAGE-WISE LEVELS OF ADVERSITY QUOTIENT AMONG TEACHERS

S.No.	Levels of Adversity Quotient	N	%age
1	Very High Adversity Quotient	08	1.6
2	High Adversity Quotient	26	5.2
3	Above Average Adversity Quotient	68	13.6
4	Average Adversity Quotient	249	49.8
5	Below Average Adversity Quotient	107	21.4
6	Low Adversity Quotient	37	7.4
7	Very Low Adversity Quotient	05	01
Total		500	100%

It is clear from Table 3.4 that 1.6% (n=08) secondary school teachers possess a very high level of adversity quotient. Then similarly, observation of table 3.4 reveals that about 5.2% (n=26) of secondary school teachers possess a high level of adversity quotient. Further, it is obvious from Table 3.4 that 13.6% (n=68) secondary school teachers possess above average level of adversity quotient; 49.8% (n=249) possess an average level of adversity quotient; 21.4% (n=107) secondary school teachers possess below average level of adversity quotient; 7.4% (n=37) teachers possess low adversity quotient level. Only 1% (n=05) secondary school teachers fell in very low adversity quotient level.

Most of the secondary school teachers possess an average level followed by “Below Average, Above Average, Low, High, Very High and Very Low” levels of adversity quotient. Figure 3.7 indicates different levels of adversity quotient among secondary school teachers.

FIGURE 3.7
GRAPHICAL REPRESENTATION OF LEVELS OF ADVERSITY
QUOTIENT AMONG TEACHERS



3.2.2.1 DIMENSION-WISE LEVELS OF ADVERSITY QUOTIENT AMONG TEACHERS

This section displays dimension-wise levels of adversity quotient i.e. levels of control, ownership and endurance, reach of secondary school teachers. An analysis of dimension-wise levels of adversity quotient among secondary school teachers is displayed in Table no. 3.5.

TABLE 3.5
DIMENSION-WISE ADVERSITY QUOTIENT LEVELS AMONG
TEACHERS

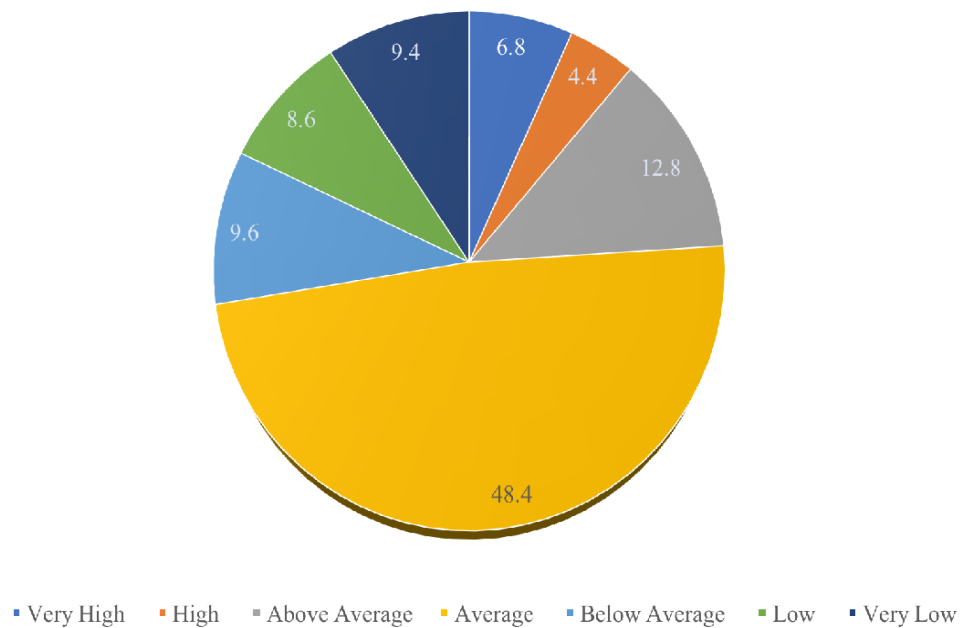
		DIMENSIONS					
		Control		OE		Reach	
S.No.	Levels	N	%age	N	%age	N	%age
1	Very High	34	6.8	7	1.4	2	0.4
2	High	22	4.4	78	15.6	5	1
3	Above Average	64	12.8	95	19	186	37.2
4	Average	242	48.4	254	50.8	146	29.2
5	Below Average	48	9.6	30	6	82	16.4
6	Low	43	8.6	19	3.8	25	5
7	Very Low	47	9.4	17	3.4	54	10.8
Total		500	100%	500	100%	500	100%

Note: OE= Ownership and endurance

It is obvious from table 3.5 that 6.8% (n=34) teachers have very high control level; 4.4% (n=22) teachers portray high control level; 12.8% (n=64) secondary school teachers possess above average level of control; 48.4% (n=242) secondary school teachers possess an average level of control. Also, 9.6% (n=48) secondary school teachers possess below average levels of control.

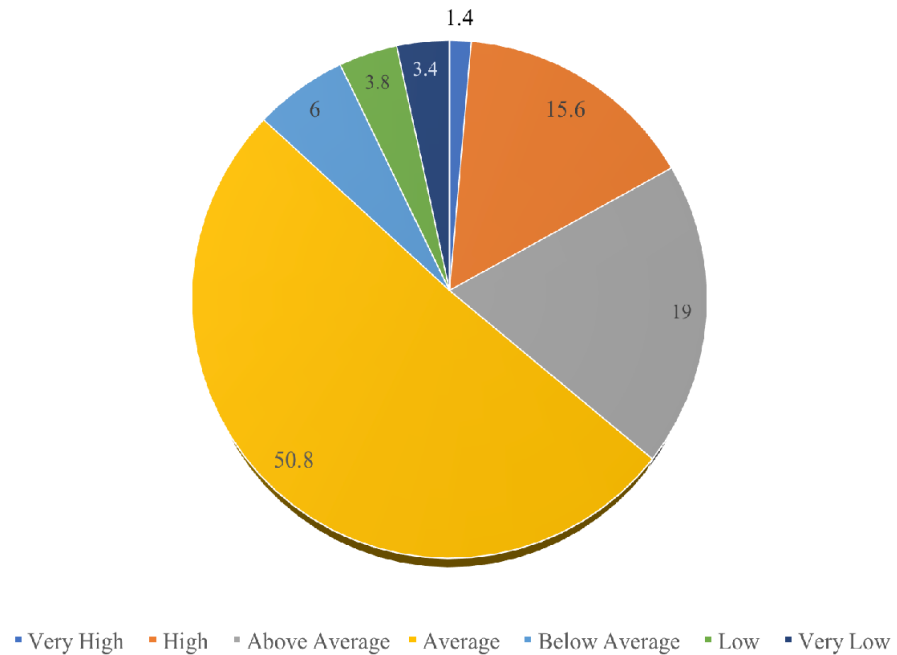
Whereas, 8.6% (n=43) teachers portray low control level; 9.4% (n=47) teachers exhibit very low control level. The observation of the results suggests that most secondary school teachers possess an average level followed by “Above Average, Below Average, Very Low, Low, Very High and High” levels of control. Figure 3.8 shows different levels of control among secondary school teachers.

FIGURE 3.8
GRAPHICAL REPRESENTATION OF LEVELS OF CONTROL AMONG
TEACHERS



It is further comprehensible by observing table 3.5 that only 1.4% (n=07) secondary school teachers perceive very high level of ownership and endurance; 15.6% (n=78) secondary school teachers perceive high level of ownership and endurance; 19% (n=95) secondary school teachers perceive above average level of ownership and endurance, 50.8% (n=254) secondary school teachers perceive average level of ownership and endurance; 6% (n=30) secondary school teachers perceive below average level of ownership and endurance and 3.8% (n=19) secondary school teachers perceive low level of ownership and endurance. Whereas, at about only 3.4% (n=17) secondary school teachers perceive very low level of ownership and endurance. The results point out that maximum number and percentage of secondary school teachers perceive average ownership and endurance level followed by “Above Average, High, Below Average, Low, Very Low and Very High” levels of ownership and endurance. Figure 3.9 displays different levels of ownership and endurance among secondary school teachers.

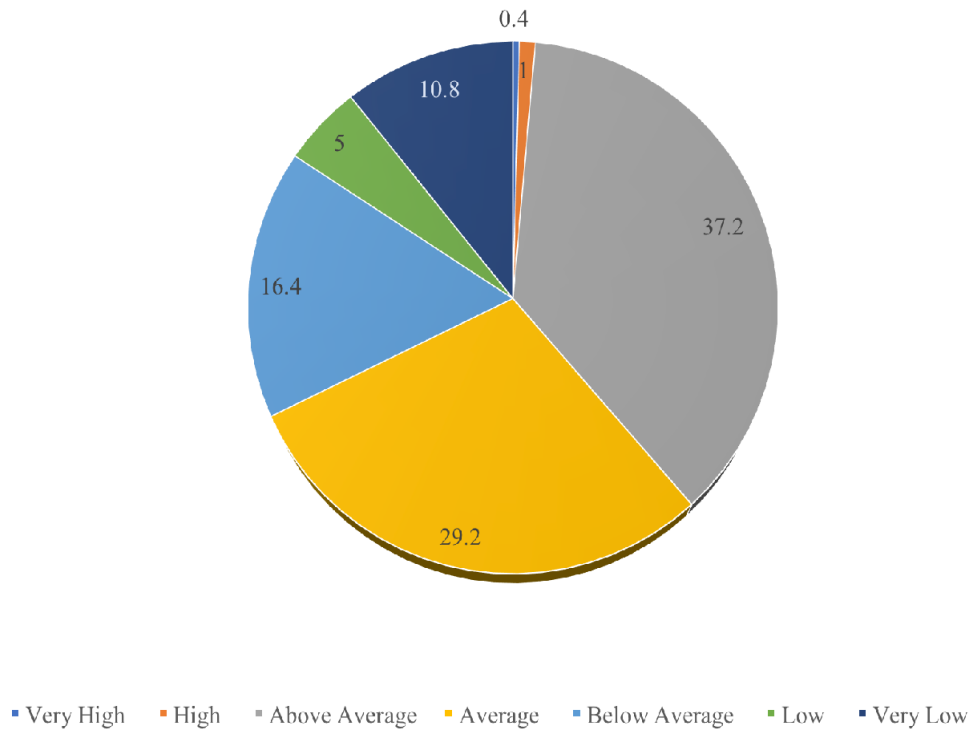
FIGURE 3.9
GRAPHICAL REPRESENTATION OF LEVELS OF OWNERSHIP AND
ENDURANCE AMONG TEACHERS



The table 3.5 reveals that around 0.4% (n=02) secondary school teachers possess very high level of reach; only 1% (n=5) secondary school teachers possess high level of reach; 37.2% (n=186) secondary school teachers possess above average level, 29.2% (n=146) secondary school teachers possess average level of reach. It may also be analysed from Table 3.5 that 16.4% (n=82) teachers portray below average reach level and 5% (n=25) teachers have low reach level. Similarly, by observing table 3.5 it comes to fore that, 10.8% (n=54) teachers portray very low reach level.

The resultant values of the percentage analysis of secondary school teachers points out that in majority, the study respondents viz. secondary school teachers possess above average level followed by “Average, Below Average, Very Low, Low, High and Very High” levels of reach. Figure 3.10 reveals different levels of reach among secondary school teachers.

FIGURE 3.10
GRAPHICAL REPRESENTATION OF LEVELS OF REACH AMONG
TEACHERS



DISCUSSION

On the basis of the results, most of secondary school teachers possess an average level followed by “Below Average, Above Average, Low, High, Very High and Very Low” levels of adversity quotient. Elaine (2005) revealed that the teachers who have experience of teaching more or less than ten years have moderate adversity quotient. Kaur (2014) studied the adversity quotient level of NSP executives and found them to be falling in the category of average level of adversity quotient. Further, Kaur (2014) revealed that the executives fell in the average category of adversity quotient and also, the VC executives exhibit average adversity quotient category. In the present study, in terms of control, the majority of secondary school teachers possess an average level followed by “Above Average, Below Average, Very Low, Low, Very High and High” levels of control. The majority of the secondary school teachers perceive average ownership and endurance level followed by “Above

Average, High, Below Average, Low, Very Low and Very High” levels of ownership and endurance.

Also, mostly the secondary school teachers possess above average level followed by “Average, Below Average, Very Low, Low, High and Very High” levels of reach. In terms of control, the teachers may likely not give up quickly but when experienced with severe stress, may not be able to have control over the arising adverse situations. In terms of ownership and endurance, the teachers are at an average level. In severe stressful conditions, the teachers may blame others for the problems more than putting a focus on solving the problems being faced and possibly be defensive and have a lack of trust on others and also the teachers would see that severe adversity situational problems will be lasting longer and be not very hopeful to solve problems in ownership and endurance terms. Also, in reach, teachers have an average capacity to keep things into perspective and containing the adversities being faced.

According to Canivel (2010), most of the respondents have average scores in control and reach of adversity quotient. Also, Cornista and Macasaet (2013) revealed that the majority of the respondents have moderate control. Kaur (2014) studied the levels of dimensions of adversity quotient. In the control dimension, the executives fell in the average category of control dimension of adversity quotient and also, the VC executives fell in the average category of control. Whereas, it was also revealed by Kaur (2014) that in the reach dimension of adversity quotient, the NSP executives fell in the category of average level.

Further, the executives fell in the average category of reach and also, the VC executives fell in the average category of reach. Also in line with the present study, Kaur (2014) revealed that in ownership and endurance, both the executives as well as the VC executives fell in the average category level. Whereas, Priya (2016) disclosed that in maximum teachers fell in low adversity quotient category level. Also, contrarily, Aquino (2013) and Villaver (2005) reported that the secondary school teachers’ level of adversity quotient was below average. In consonance with the

present study, Ferrer (2009) indicated that adversity quotient level of school administrative heads falls at average level.

3.2.3 ALIENATION (INDEPENDENT VARIABLE) AMONG TEACHERS

This section deals with analysis related to the alienation of secondary school teachers. It comprises of levels of alienation among secondary school teachers in terms of their total strength in numbers at each level as well as in terms of percentage along with graphical representation of the same. Table 3.6 presents the percentage-wise analysis of levels of alienation among secondary school teachers.

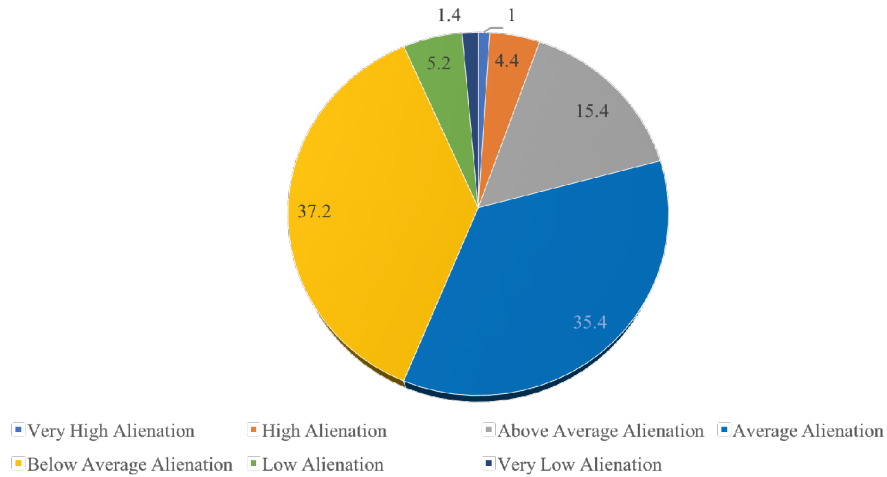
TABLE 3.6
PERCENTAGE-WISE LEVELS OF ALIENATION
AMONG TEACHERS

S.No.	Levels of Alienation	N	%age
1	Very High Alienation	05	01
2	High Alienation	22	4.4
3	Above Average Alienation	77	15.4
4	Average Alienation	177	35.4
5	Below Average Alienation	186	37.2
6	Low Alienation	26	5.2
7	Very Low Alienation	07	1.4
Total		500	100%

It is clear from table 3.6 that only 1% (n=05) of teachers portray very high alienation level. It was also revealed that 4.4% (n=22) of teachers portray high alienation level. Further, it is obvious from Table 3.6 that 15.4% (n=77) secondary school teachers possess above average level of alienation; 35.4% (n=177) possess an average level of alienation; 37.2% (n=186) secondary school teachers possess below average level of alienation.

At low level, there are 5.2% (n=26) secondary school teachers and at very low level, there are 1.4% (n=07) secondary school teachers. Most of the secondary school teachers possess “Below Average then, Average, Above Average, Low, High, Very Low and Very High” levels of alienation.

FIGURE 3.11 GRAPHICAL REPRESENTATION OF LEVELS OF ALIENATION AMONG TEACHERS



The above figure 3.11 indicates the different levels of alienation among secondary school teachers as a result of the findings of percentage analysis of alienation of secondary school teachers.

3.2.3.1 DIMENSION-WISE LEVELS OF ALIENATION (INDEPENDENT VARIABLE) AMONG TEACHERS

This section is related to dimension-wise levels of alienation i.e. levels of work alienation, social isolation, cultural estrangement of secondary school teachers. An analysis of dimension-wise levels of alienation among secondary school teachers is given in Table 3.7.

TABLE 3.7 DIMENSION-WISE LEVELS OF ALIENATION AMONG TEACHERS

S.No.	Levels	DIMENSIONS					
		WA		SI		CE	
		N	%age	N	%age	N	%age
1	Very High	18	3.6	19	3.8	56	11.2
2	High	42	8.4	59	11.8	48	9.6
3	Above Average	54	10.8	31	6.2	26	5.2
4	Average	101	20.2	119	23.8	176	35.2
5	Below Average	181	36.2	89	17.8	182	36.4
6	Low	63	12.6	172	34.4	8	1.6
7	Very Low	41	8.2	11	2.2	4	0.8
Total		500	100	500	100	500	100

Note: WA= Work Alienation, SI= Social Isolation, CE= Cultural Estrangement

It is reflecting from table 3.7 that 3.6% (n=18) secondary school teachers perceive a very high level of work alienation, 8.4% (n=42) secondary school teachers perceive a high level of work alienation, 10.8% (n=54) secondary school teachers perceive above average level of work alienation; 20.2% (n=101) secondary school teachers perceive an average level of work alienation; 36.2% (n=181) secondary school teachers perceive below average level of work alienation and 12.6% (n=63) teachers perceive low work alienation level.

Whereas, 8.2% (n=41) teachers perceive very low work alienation level. The results suggest that most secondary school teachers perceive below “Below Average” work alienation followed by “Average, Low, Above Average, High, Very Low and Very High” levels respectively. Figure 3.12 displays different levels of work alienation among secondary school teachers.

FIGURE 3.12
GRAPHICAL REPRESENTATION OF LEVELS OF WORK ALIENATION
AMONG TEACHERS

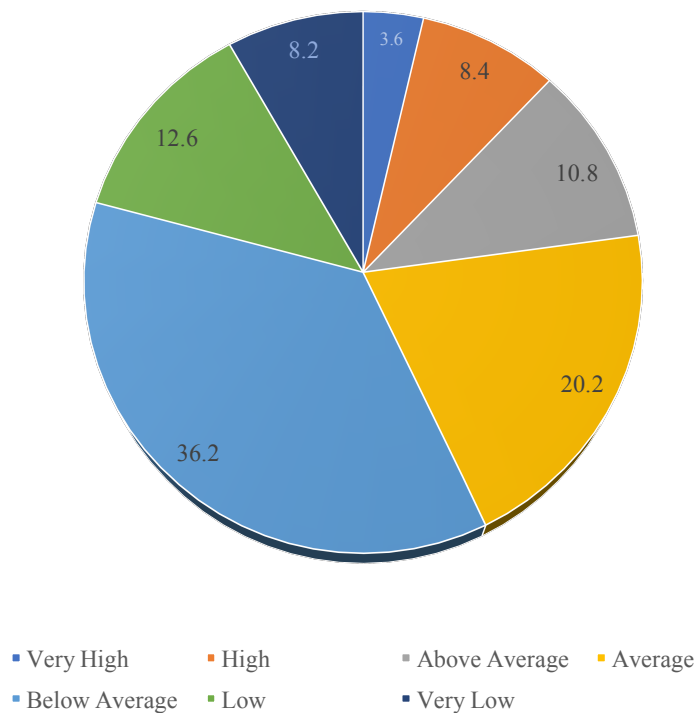
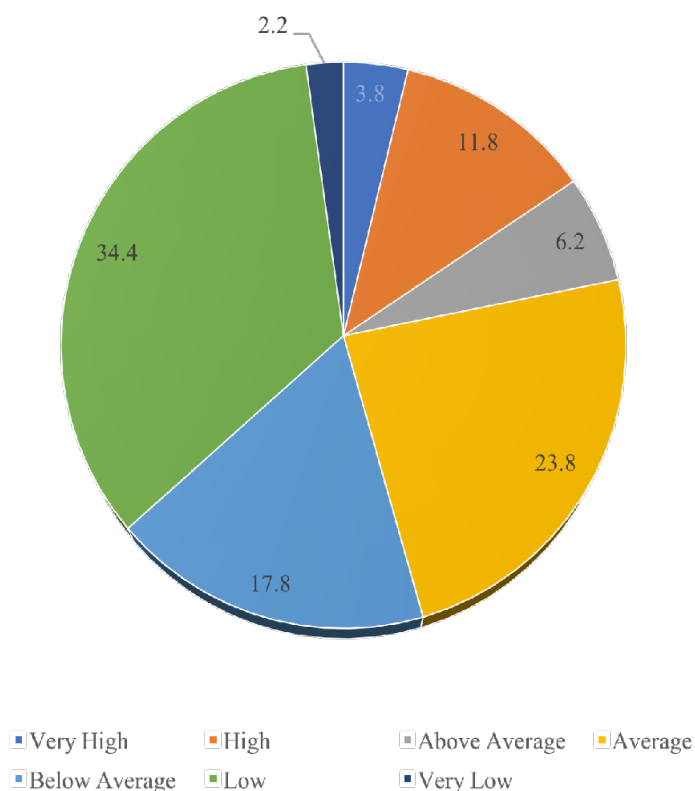


Table 3.7 reveals that 3.8% (n=19) teachers portray very high social isolation level; 11.8% (n=59) teachers portray high social isolation level; 6.2% (n=31) secondary school teachers possess above average level of social isolation; 23.8 (n=119) secondary school teachers possess an average level of social isolation. It may also be analysed from table 3.7 that 17.8% (n=89) secondary school teachers possess below average level and similarly, 34.4% (n=172) teachers portray low social isolation level. Only 2.2% (n=11) teachers exhibit very low social isolation level.

Percentage analysis of social isolation deduces that most of the teachers perceive “Low then, Average, Below Average, High, Above Average, Very High, Very Low” levels of social isolation. Figure 3.13 discloses different levels of social isolation among secondary school teachers.

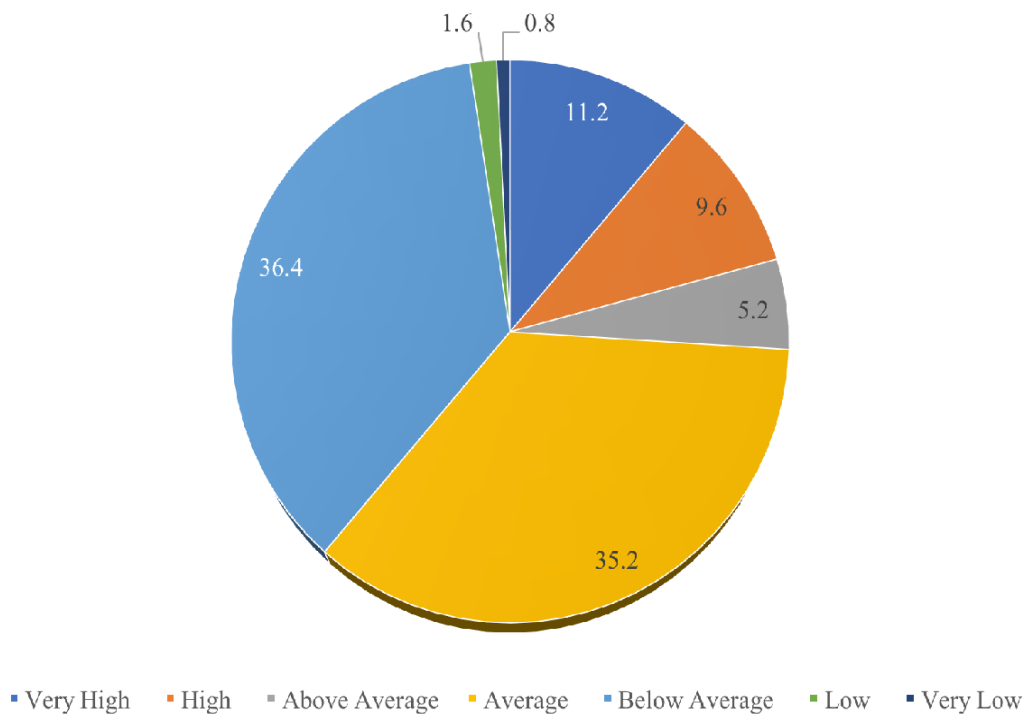
FIGURE 3.13
GRAPHICAL REPRESENTATION OF LEVELS OF SOCIAL ISOLATION AMONG TEACHERS



It is clear from table 3.7 that 11.2% (n=56) teachers portray very high cultural estrangement level; 9.6% (n=48) teachers exhibit high cultural estrangement level; 5.2% (n=26) secondary school teachers possess above average level of cultural estrangement and 35.2% (n=176) secondary school teachers possess an average level of cultural estrangement. Similarly, 36.4% (n=182) secondary school teachers possess below average level of cultural estrangement. Whereas, 1.6% (n=08) teachers portray low cultural estrangement level; 0.8% (n=04) teachers are exhibiting very low cultural estrangement level.

The results point out that maximum number and percentage of secondary school teachers possess below average level followed by “Average, Very High, High, Above Average, Low and Very Low” levels of cultural estrangement. Further figure 3.14 indicates different levels of cultural estrangement among secondary school teachers.

FIGURE 3.14
GRAPHICAL REPRESENTATION OF LEVELS OF CULTURAL
ESTRANGEMENT AMONG TEACHERS



DISCUSSION

Therefore, the results of percentage analysis reflect that most of the secondary school teachers possess “Below Average then, Average, Above Average, Low, High, Very Low and Very High” levels of alienation. This suggests that teachers of secondary schools are not much alienated in normal conditions but in severe aloof conditions they are likely to feel alienated. Most secondary school teachers perceive “Below Average” work alienation followed by “Average, Low, Above Average, High, Very Low and Very High” levels respectively. This indicates that in severe situations of work alienation, the teachers are likely to give up and feel alienated which would affect their teaching at school.

Results also suggest that most of the secondary school teachers possess a low level followed by “Average, Below Average, High, Above Average, Very High, Very Low” levels of social isolation. This suggests that at school, home, community and society, the teachers of the present study feel less isolated but feel more towards inclusion by the same. Majorly, the secondary school teachers possess below average level followed by “Average, Very High, High, Above Average, Low and Very Low” levels of cultural estrangement. This points to the fact that teachers feel and perceive moderately low cultural estrangement in the majority.

In line with the present study, McLellan and Adey (1999) revealed that the respondents had a moderately low level of alienation. Brooks et al. (2008) revealed that at different levels, all the teachers experience alienation. Alternatively, Şimşek et al. (2012) illustrated alienation levels to be moderate in the respondents; Ataş and Ayık (2013) revealed that the alienation levels in the pre-service teachers were in low level. Çağlar (2013) revealed that the alienation level in education faculty candidates was moderate and Erbas (2014) revealed that levels of alienation in teaching profession was falling at moderate category level in physical education teacher candidates.

In line with present findings, McLellan (2006) in his research study disclosed that majorly, the respondents of his study have a moderately low level of alienation in

them. Besselink and Oberleitner (2019) revealed that out of 149 respondents, 71 respondents perceive a low level of social isolation.

3.2.4 CHANGE PRONENESS (INDEPENDENT VARIABLE) AMONG SECONDARY SCHOOL TEACHERS

The present section deals with analysis related to change proneness of secondary school teachers comprising of total number and total percentage of secondary school teachers at each level of change proneness along with the graphical representation of the same. Table 3.8 displays the percentage-wise analysis of levels of change proneness among secondary school teachers.

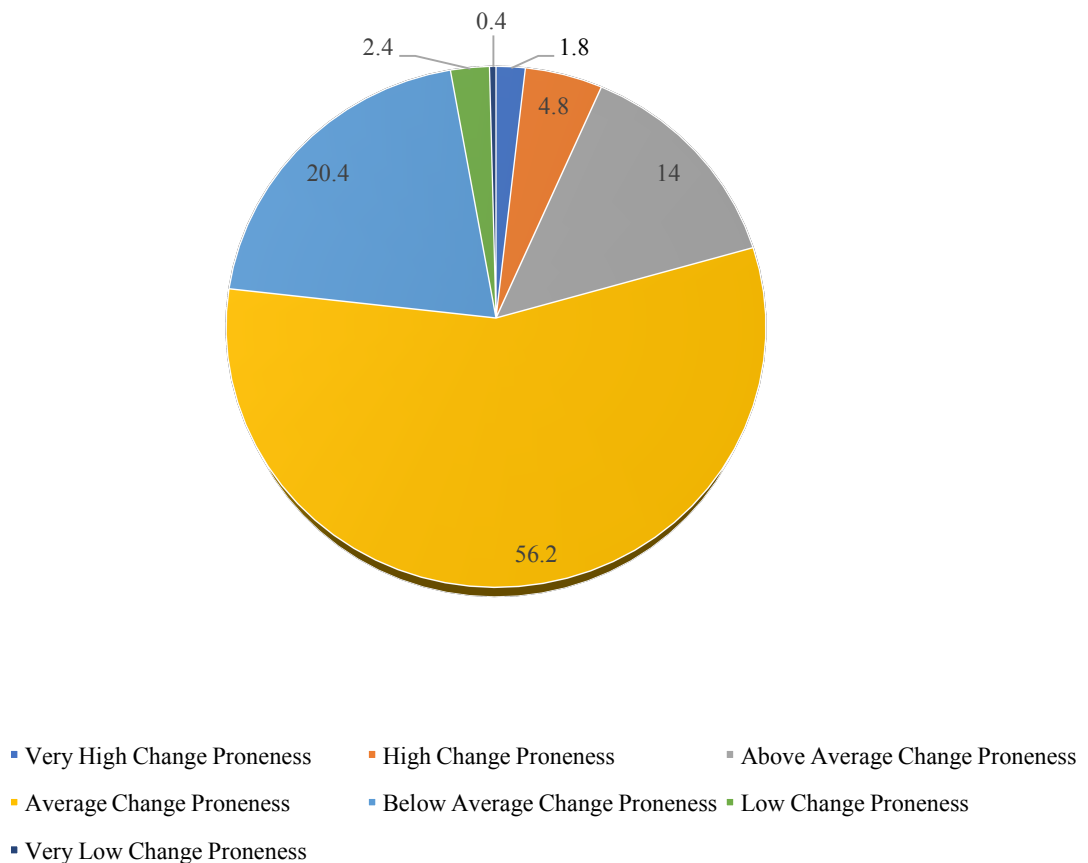
TABLE 3.8
PERCENTAGE-WISE LEVELS OF CHANGE PRONENESS AMONG
TEACHERS

S.No.	Levels of Change Proneness	N	%age
1	Very High Change Proneness	09	1.8
2	High Change Proneness	24	4.8
3	Above Average Change Proneness	70	14
4	Average Change Proneness	281	56.2
5	Below Average Change Proneness	102	20.4
6	Low Change Proneness	12	2.4
7	Very Low Change Proneness	02	0.4
Total		500	100%

It is obvious from table 3.8 that 1.8% (n=09) secondary school teachers possess a very high level of change proneness; 4.8% (n=24) possess a high level of change proneness; 14% (n=70) possess above average level of change proneness; 56.2% (n=281) possess an average level of change proneness; 20.4% (n=102) secondary school teachers possess below average level of change proneness; 2.4% (n=12) teachers portray low change proneness level. At very low level of change proneness, there are only 0.4% (n=02) secondary school teachers.

The observation of the resultant values as a product of percentage analysis of change proneness insinuates that maximum number and percentage of secondary school teachers possess an average level followed by “Below Average, Above Average, High, Low, Very High and Very Low” levels of change proneness. The figure 3.15 reflects different levels of change proneness among secondary school teachers.

FIGURE 3.15
GRAPHICAL REPRESENTATION OF LEVELS
OF CHANGE PRONENESS AMONG TEACHERS



DISCUSSION

Based on the observation of results of percentage analysis of various levels of change proneness among teachers, it came to fore that maximum secondary school teachers possess average level of change proneness. After this, majority of the study sample of secondary school teachers lie at “Below Average, Above Average, High,

Low, Very High and Very Low” levels of change proneness. This means that in moderation the teachers of the present study are inclined towards changes in their teaching-learning process. On average, these teachers are willing to update their knowledge horizon from time to time in line with the ever-changing times. These teachers in moderation are inclined towards trying innovative methods of teaching. They are moderately inclined towards inquisitiveness to know about the innovations in their field of study. They on average like to read and discuss new practices and ideas.

These teachers on average are likely to be open-minded in the majority as compared to the teachers having a low level of change proneness. The majority of moderate level change prone teachers are likely to read additional educational journals, educational magazines, research articles, books etc. to enhance their knowledge to be a better teacher in facilitating their pupils’ learning and they are more likely to adopt various other methods of teaching depending on the topic to be taught as compared to the traditional methods of teaching.

Kaur (2014) studied the change readiness of NSP Executives and she revealed that the NSP executives fall in the average category of change readiness. Also, the change readiness of the executives fell in the average level of category classification. Furthermore, Kaur (2014) revealed that the VC executives also fell in the average level of category classification of the change readiness. Sen (2017) conducted a study related to the change proneness of secondary school teachers. The findings of this study disclosed that about 13.27% out of 1048 secondary school teachers reflected an average level of change proneness and majorly the secondary school respondent teachers have either “Above Average or High” levels of change proneness in them.

3.3 COMPARATIVE ANALYSIS

II. Objective: To find the difference in teacher effectiveness, adversity quotient, alienation and change proneness of teachers with respect to type of school, gender and experience.

The second objective of the study is to, “find the difference in teacher effectiveness, adversity quotient, alienation and change proneness of teachers with

respect to type of school, gender and experience”. To examine the significant differences in mean scores of teacher effectiveness, adversity quotient, alienation and change proneness, three-way ANOVA (analysis of variance) is conducted for data analysis. ANOVA is a statistical technique determining the statistical significance of two or more mean differences. The analysis of variables has been done by using three categorical variables viz. type of school, gender and experience categorized into two types of ‘type of school’ i.e. private and government; ‘gender’ viz. female and male; and ‘experience’ of three types viz. low, average and high where low is equal to less than five years, average is equal to five to ten years and high is equal to more than ten years of experience.

3.3.1 COMPARISON OF TEACHER EFFECTIVENESS, ADVERSITY QUOTIENT, ALIENATION AND CHANGE PRONENESS AMONG TEACHERS WITH RESPECT TO “TYPE OF SCHOOL, GENDER AND EXPERIENCE”

To find significant difference in teacher effectiveness, adversity quotient, alienation and change proneness, three-way analysis of variance (2X2X3) factorial design involving two types of ‘type of school’ i.e. private and government; ‘gender’ viz. female and male; and ‘experience’ of three types viz. low, average and high where low is equal to less than five years, average is equal to five to ten years and high is equal to more than ten years of experience. The data relating to teacher effectiveness, adversity quotient, alienation and change proneness is analysed by univariate analysis of variance and comprehensive details are presented in the subsequent parts.

3.3.1.1 SUMMARY OF 2X2X3 ANALYSIS OF VARIANCE (ANOVA) OF TEACHER EFFECTIVENESS AMONG TEACHERS WITH RESPECT TO “TYPE OF SCHOOL, GENDER AND EXPERIENCE”

The Levene’s test of homogeneity of variance was carried out at the initial stage to determine the homoscedasticity. The levene static of teacher effectiveness is 0.246 and its p-value is 0.620. The levene static of five dimensions of teacher effectiveness i.e. “preparation for teaching and planning, classroom management, knowledge of subject-matter etc., teacher characteristics, interpersonal relations” is

0.242, 1.165, 0.410, 1.454, 0.585 respectively with 0.623, 0.281, 0.523, 0.228, 0.557 as p-value, respectively. Since the p-values of all the dimensions of teacher effectiveness are above the threshold value of 0.05 level of significance, therefore, there is homogeneity of variance and the data can be further analysed for teacher effectiveness and its dimensions viz. “Preparation for teaching and planning, Classroom management, Knowledge of subject-matter etc., Teacher characteristics, Interpersonal relations” using analysis of variance.

To study the teacher effectiveness based on the demographic variables, descriptive statistics was calculated for total teacher effectiveness score and for all scores of its five dimensions. The same is presented below in table no. 3.9.

TABLE 3.9
DESCRIPTIVE STATISTICS OF TEACHER EFFECTIVENESS WITH
RESPECT TO “TYPE OF SCHOOL, GENDER AND EXPERIENCE”

Type of School	Gender	Experience	Mean & S.D.	TE	PTP	CM	KSM	TC	IR
Private	Female	Low	M.= 481.882	83.745	114.451	55.529	142.177	85.980	
		N= 51	S.D.= 10.117	2.028	2.239	2.063	4.232	3.997	
		Average	M.= 484.356	84.089	114.911	56.044	142.289	87.022	
		N= 45	S.D.= 9.163	1.893	2.043	1.745	4.219	3.474	
		High	M.= 486.069	85.069	115.000	56.069	143.000	87.931	
		N= 29	S.D.= 8.031	1.751	1.535	1.870	3.928	3.411	
		Total	M.= 483.744	84.944	114.744	55.840	142.408	86.808	
	N= 125	S.D.= 9.405	1.911	2.024	1.911	4.139	3.735		
	Male	Low	M.= 477.750	83.231	113.365	54.039	140.615	84.500	
		N= 52	S.D.= 8.282	1.811	1.990	2.359	4.362	2.726	
		Average	M.= 479.575	84.553	115.277	55.192	141.213	85.340	
		N= 47	S.D.= 9.663	2.367	2.676	2.092	5.401	2.891	
		High	M.= 481.808	85.654	114.308	54.885	141.769	86.192	
		N= 26	S.D.= 10.239	1.958	2.259	2.269	5.127	3.430	
		Total	M.= 479.280	84.648	114.320	54.064	141.080	85.168	
	N= 125	S.D.= 9.522	2.118	2.306	2.228	5.139	2.991		
	Total	Low	M.= 479.796	83.485	113.408	55.282	141.388	85.233	
		N= 103	S.D.= 9.422	1.929	2.107	2.220	4.348	3.479	
		Average	M.= 481.913	84.815	115.587	55.609	141.739	86.163	
		N= 92	S.D.= 9.673	2.153	2.396	1.967	4.863	3.283	
		High	M.= 484.055	85.346	114.673	55.509	142.418	87.109	
N= 55		S.D.= 9.825	1.858	1.925	2.133	5.076	3.500		
Total		M.= 481.512	84.796	114.532	55.452	141.744	85.988		
N= 250	S.D.= 9.706	2.019	2.175	2.107	4.704	3.475			
Female	Low	M.= 478.689	83.475	113.853	55.279	140.213	85.869		
	N= 61	S.D.= 8.707	2.218	2.315	2.083	4.091	3.466		
	Average	M.= 478.615	82.744	115.000	54.744	139.462	85.667		
	N= 39	S.D.= 7.397	1.996	1.732	1.728	4.217	2.321		

Government		High	M.=	481.200	83.400	114.920	54.760	140.760	86.360
		N= 25	S.D.=	7.036	2.102	1.913	1.451	3.767	2.564
		Total	M.=	479.168	83.232	114.424	54.520	140.088	85.904
		N= 125	S.D.=	7.736	2.137	2.130	1.865	4.064	2.966
	Male	Low	M.=	477.837	83.209	113.861	55.488	140.488	84.791
		N= 43	S.D.=	9.569	2.474	2.182	2.282	4.646	2.435
		Average	M.=	481.035	84.569	115.862	55.724	141.707	85.172
		N= 58	S.D.=	7.108	1.557	1.969	1.725	3.839	2.576
		High	M.=	480.750	85.167	114.625	55.833	140.875	85.250
		N= 24	S.D.=	7.473	2.371	2.464	1.465	4.317	2.382
		Total	M.=	479.880	84.560	114.472	55.664	141.128	85.056
		N= 125	S.D.=	8.174	2.085	2.558	1.883	4.225	2.480
	Total	Low	M.=	478.337	83.365	113.856	55.365	140.327	85.423
		N= 104	S.D.=	9.038	2.319	2.693	2.159	4.309	3.115
		Average	M.=	480.062	83.237	115.918	55.732	140.804	85.371
		N= 97	S.D.=	6.901	1.784	1.869	1.717	4.125	2.476
High		M.=	480.980	84.776	114.776	55.796	140.816	85.816	
N= 49		S.D.=	7.181	2.248	2.182	1.443	4.004	2.514	
Total		M.=	479.524	83.396	114.448	55.592	140.608	85.480	
N= 250		S.D.=	7.950	2.113	2.349	1.872	4.170	2.761	
Total	Female	Low	M.=	480.143	83.598	113.125	55.393	141.107	85.920
		N= 112	S.D.=	9.468	2.129	2.290	2.068	4.252	3.701
		Average	M.=	481.691	84.464	115.952	55.905	140.976	86.393
		N= 84	S.D.=	8.458	2.044	1.894	1.733	4.426	3.054
		High	M.=	483.815	84.759	114.963	55.926	141.963	87.204
		N= 54	S.D.=	7.905	1.932	1.704	1.681	3.981	3.123
		Total	M.=	481.456	84.588	114.584	55.680	141.248	86.356
		N= 250	S.D.=	8.894	2.054	2.079	1.891	4.255	3.396
	Male	Low	M.=	477.790	83.221	113.137	54.242	140.558	84.632
		N= 95	S.D.=	8.839	2.125	2.595	2.323	4.469	2.589
		Average	M.=	480.381	84.562	115.600	54.486	141.486	85.248
		N= 105	S.D.=	8.338	1.951	2.319	1.907	4.587	2.710
		High	M.=	481.300	85.420	114.460	54.340	141.340	85.740
		N= 50	S.D.=	9.537	2.158	2.341	1.965	5.302	2.982
		Total	M.=	479.580	84.604	114.396	54.364	141.104	85.112
		N= 250	S.D.=	8.861	2.098	2.431	2.081	4.695	2.743
	Total	Low	M.=	479.063	83.425	113.130	55.324	140.855	85.329
		N= 207	S.D.=	9.237	2.130	2.429	2.185	4.351	3.294
		Average	M.=	480.963	84.519	115.757	55.672	141.259	85.757
		N= 189	S.D.=	8.395	1.988	2.142	1.839	4.511	2.916
High		M.=	482.606	85.077	114.721	55.644	141.664	86.500	
N= 104		S.D.=	8.776	2.061	2.041	1.838	4.650	3.128	
Total		M.=	480.518	84.596	114.490	55.522	141.176	85.734	
N= 500		S.D.=	8.918	2.074	2.262	1.992	4.477	3.146	
Levene Static* =				0.246	0.242	1.165	0.410	1.454	0.585

Note: M.= Mean, S.D.= Standard Deviation, N= No. of Respondents, TE= Teacher Effectiveness, PTP= “preparation for teaching and planning”, CM= “classroom management”, KSM= “knowledge of subject-matter etc.”, TC= “teacher characteristics” And IR= “interpersonal relations”; * p-value of all constructs>0.05 (Threshold)

In order to analyse the teacher effectiveness of teachers with respect to demographic variables, type of school; gender; experience, obtained scores was subjected to ANOVA. Comprehensive details of the same is presented in the table no. 3.10.

TABLE 3.10
2X2X3 ANOVA SUMMARY OF TEACHER EFFECTIVENESS WITH
RESPECT TO “TYPE OF SCHOOL, GENDER AND EXPERIENCE

TE							
Source	TOS	Gender	Exp.	TOS * Gender	TOS * Exp.	Gender * Exp.	TOS * Gender * Exp.
SS	554.8	455.019	858.923	639.4	34.479	46.552	102.276
Df	1	1	2	1	2	2	2
MS	554.8	455.019	429.461	639.4	17.24	23.276	51.138
F	7.343	6.022	5.684	8.463	0.228	0.308	0.677
Sig.	0.007	0.014	0.004	0.004	0.796	0.735	0.509
Error= 36871.349, Df= 488; Total= 146119543, Df= 500							
PTP							
Source	TOS	Gender	Exp.	TOS * Gender	TOS * Exp.	Gender * Exp.	TOS * Gender * Exp.
SS	24.135	2.319	32.173	10.041	7.242	20.396	9.328
Df	1	1	2	1	2	2	2
MS	24.135	2.319	16.086	10.041	3.621	10.198	4.664
F	5.753	0.553	3.835	2.394	0.863	2.431	1.112
Sig.	0.017	0.458	0.022	0.122	0.422	0.089	0.330
Error= 2047.248, Df= 488; Total= 4476348, Df= 500							
CM							
Source	TOS	Gender	Exp.	TOS * Gender	TOS * Exp.	Gender * Exp.	TOS * Gender * Exp.
SS	0.115	10.567	44.981	3.052	20.419	4.641	1.049
Df	1	1	2	1	2	2	2
MS	0.115	10.567	22.491	3.052	10.210	2.320	0.524
F	0.023	2.089	4.446	0.603	2.018	0.459	0.104
Sig.	0.88	0.149	0.012	0.438	0.134	0.632	0.902
Error= 2468.469, Df= 488; Total= 8257393, Df= 500							
KSM							
Source	TOS	Gender	Exp.	TOS * Gender	TOS * Exp.	Gender * Exp.	TOS * Gender * Exp.
SS	3.589	16.054	12.967	24.397	0.929	3.656	1.353
Df	1	1	2	1	2	2	2
MS	3.589	16.054	6.484	24.397	0.465	1.828	0.676
F	0.912	4.08	1.648	6.2	0.118	0.465	0.172
Sig.	0.34	0.044	0.194	0.013	0.889	0.629	0.842
Error= 1920.255, Df= 488; Total= 1956481, Df= 500							
TC							
Source	TOS	Gender	Exp.	TOS * Gender	TOS * Exp.	Gender * Exp.	TOS * Gender * Exp.
SS	178.792	4.754	36.63	132.392	4.76	41.654	20.706
Df	1	1	2	1	2	2	2
MS	178.792	4.754	18.315	132.392	2.38	20.827	10.353
F	9.129	0.243	0.935	6.76	0.122	1.063	0.529
Sig.	0.003	0.622	0.393	0.01	0.886	0.346	0.59
Error= 9557.320, Df= 488; Total= 12519824, Df= 500							
IR							
Source	TOS	Gender	Exp.	TOS * Gender	TOS * Exp.	Gender * Exp.	TOS * Gender * Exp.
SS	46.583	180.001	92.433	15.406	35.679	2.027	3.852
Df	1	1	2	1	2	2	2
MS	46.583	180.001	46.217	15.406	17.839	1.013	1.926
F	4.991	19.286	4.952	1.651	1.911	0.109	0.206
Sig.	0.026	0.000	0.007	0.199	0.149	0.897	0.814
Error= 4554.682, Df= 488; Total= 4683671, Df= 500							

Note: TOS= Type of School, Exp.= Experience, TE= Teacher Effectiveness, PTP= “preparation for teaching and planning”, CM= “classroom management”, KSM= “knowledge of subject-matter etc.”, TC= “teacher characteristics” And IR= “interpersonal relations”

TYPE OF SCHOOL

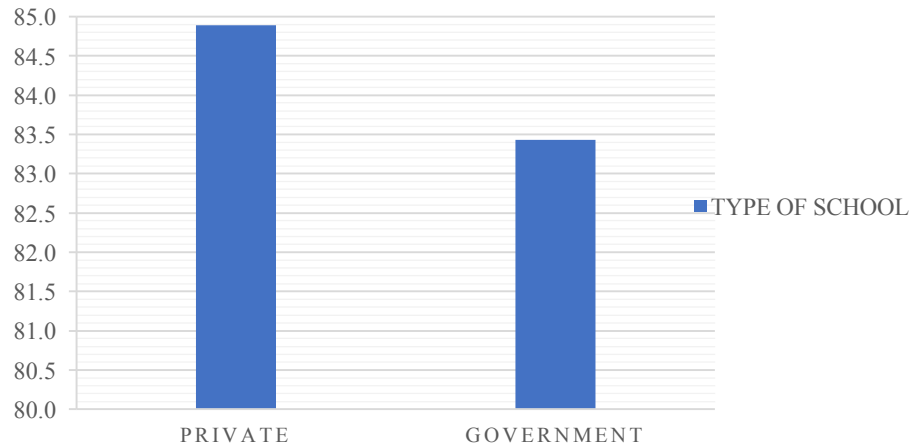
It is clear from above table 3.10 that the values of the F-ratio for teacher effectiveness and its dimension i.e. “Preparation for teaching and planning, Classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” of secondary school teachers with respect to “Type of school” came out to be 7.343, 5.753, 0.023, 0.912, 9.129 and 4.991 respectively.

Therefore, the two groups of the teachers don't differ significantly at 0.05 level of significance on their scores of teacher effectiveness dimensions viz. “Classroom management, Knowledge of subject-matter etc.” and are differing significantly on 0.05 significance level in their scores with respect to teacher effectiveness and its dimension i.e. “Preparation for teaching and planning, Teacher characteristics and Interpersonal relations” of secondary school teachers. Therefore, the hypothesis $H_{0.1.1}$, i.e. “There exists no significant difference in teacher effectiveness of teachers with respect to type of school” is accepted for teacher effectiveness dimensions viz. “Classroom management, Knowledge of subject-matter etc.” and rejected for teacher effectiveness and its dimension i.e. “Preparation for teaching and planning, Teacher characteristics and Interpersonal relations”.

Hence, the teachers with respect to “Type of school” i.e. private and government differ significantly in their teacher effectiveness and its dimension i.e. “Preparation for teaching and planning, Teacher characteristics and Interpersonal relations” and do not differ significantly in teacher effectiveness dimensions viz. “Classroom management, Knowledge of subject-matter etc.”

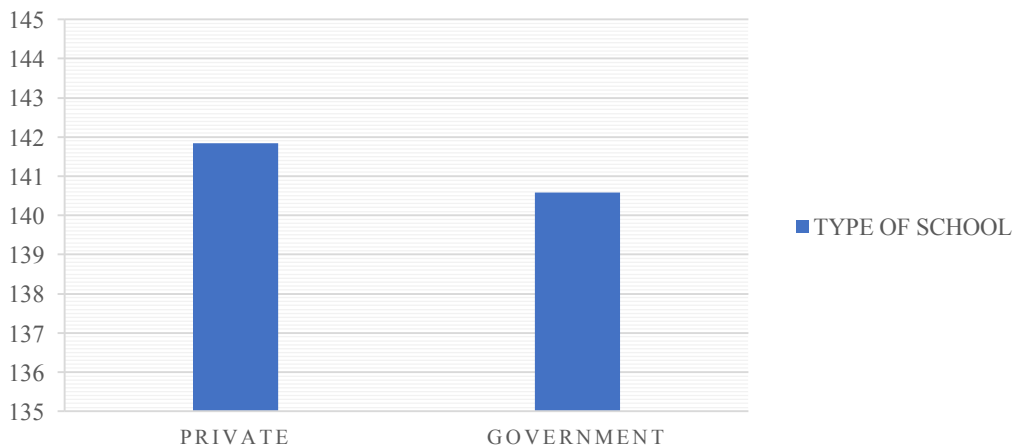
After reviewing the corresponding mean scores from the above table 3.9 of descriptive statistics, private school type teachers are better effective in “Preparation for teaching and planning” in comparison to the government school type school teachers. Figure 3.16 displays comparative analysis of “Preparation for teaching and planning” with respect to type of school graphically.

FIGURE 3.16
COMPARATIVE ANALYSIS OF “PREPARATION FOR TEACHING AND PLANNING” WITH RESPECT TO TYPE OF SCHOOL PRESENTED GRAPHICALLY



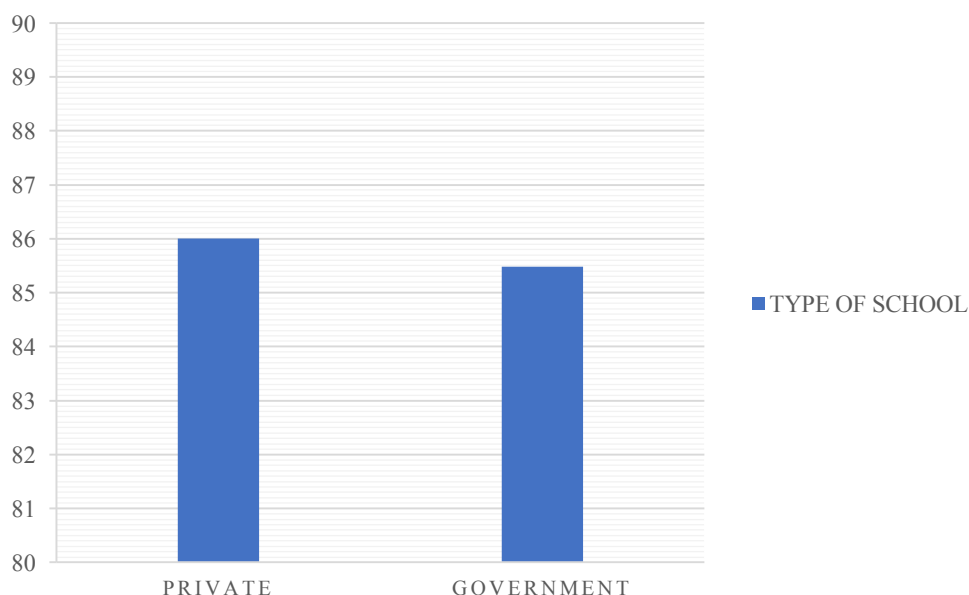
Also, it was found by the analysis of variance and mean analysis that the private school type teachers were better effective in “Teacher characteristics” in comparison to the government type teachers. Figure 3.17 depicts comparative analysis of “Teacher characteristics” with respect to type of school graphically.

FIGURE 3.17 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF “TEACHER CHARACTERISTICS” WITH RESPECT TO TYPE OF SCHOOL



The teachers from private as well as government schools are equally effective in their “Classroom management and Knowledge of subject-matter etc.” Whereas, table 3.9 also reveals that the private school type teachers are better effective in interpersonal skills in comparison to the government school type teachers. Figure 3.17.1 depicts comparative analysis of “Interpersonal relations” with respect to type of school graphically.

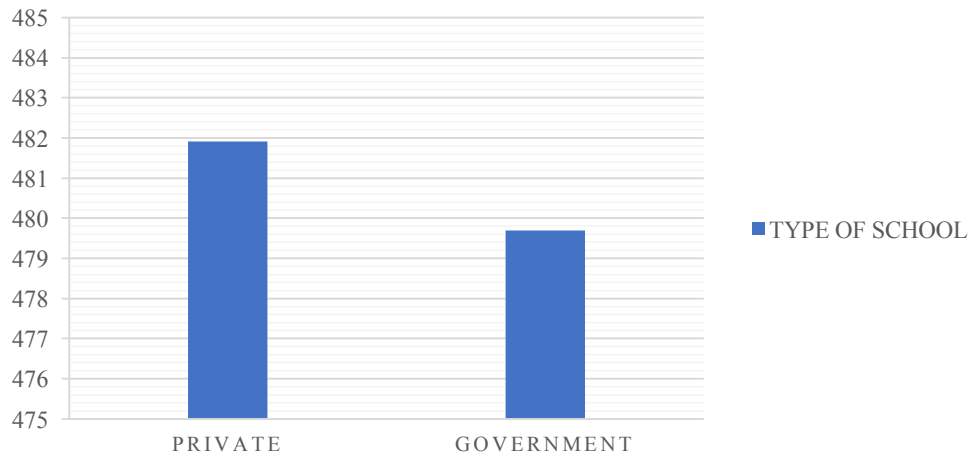
FIGURE 3.17.1
GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS
OF “INTERPERSONAL RELATIONS” WITH RESPECT TO TYPE OF
SCHOOL



Henceforth, for teacher effectiveness, the data provides sufficient evidence that private type of schools’ secondary teachers as compared to government type of schools’ secondary teachers are more effective teachers.

Figure 3.18 reflects the graphical representation of comparative analysis of the teacher effectiveness on the basis of “Type of school”.

FIGURE 3.18 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF TEACHER EFFECTIVENESS WITH RESPECT TO “TYPE OF SCHOOL”



GENDER

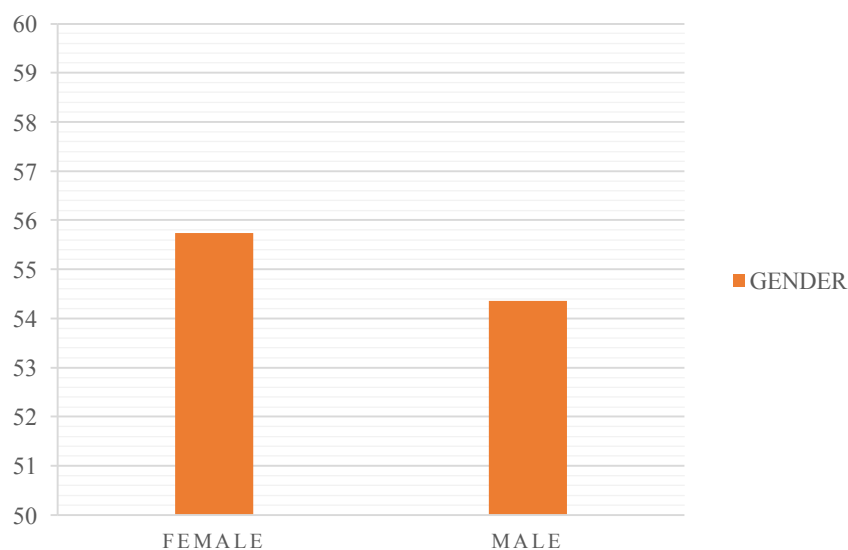
It is clear from above table 3.10 that on gender basis, the F-ratios for the differences in teacher effectiveness and its dimension i.e. “Preparation for teaching and planning, Classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” of secondary school teachers were found to be 6.022, 0.553, 2.089, 4.08, 0.243, 19.286 respectively. The results indicate that teachers on the basis of their gender differ insignificantly at .05 level of significance in teacher effectiveness dimensions viz. “preparation for teaching and planning, classroom management, teacher characteristics”.

The secondary school female teachers and male teachers differ significantly at the .05 significance level in their teacher effectiveness and its dimension i.e. “Knowledge of subject-matter etc., Interpersonal relations”. Thus, hypothesis H_{01,2}, i.e. “There exists no significant difference in teacher effectiveness of teachers with respect to gender” is accepted for teacher effectiveness dimensions viz. “Preparation for teaching and planning, Classroom management, Teacher characteristics” and rejected for teacher effectiveness and its dimension i.e. “Knowledge of subject-matter etc., Interpersonal relations”.

Therefore, secondary school teachers on basis of gender i.e. female and male differ significantly in their teacher effectiveness and its dimension i.e. “Knowledge of subject-matter etc., Interpersonal relations” and differ insignificantly in their teacher effectiveness dimensions viz. “Preparation for teaching and planning, Classroom management, Teacher characteristics”.

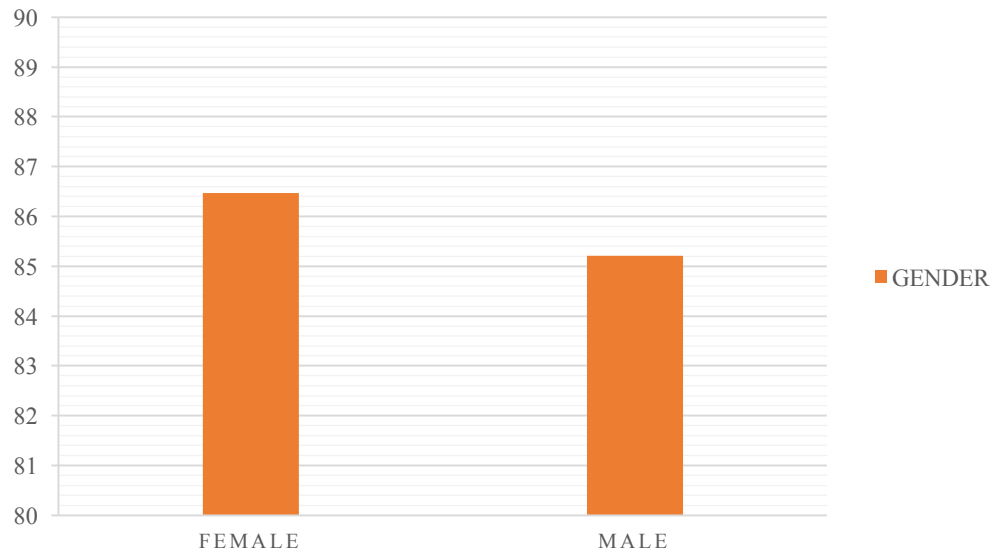
Table 3.9 makes it evident that female teachers are more effective in their “Knowledge of subject-matter etc.” than the male secondary school teachers. The figure 3.19 shows comparative analysis of “Knowledge of subject-matter etc.” with respect to gender graphically.

FIGURE 3.19 COMPARATIVE ANALYSIS OF “KNOWLEDGE OF SUBJECT-MATTER ETC.” WITH RESPECT TO GENDER PRESENTED GRAPHICALLY



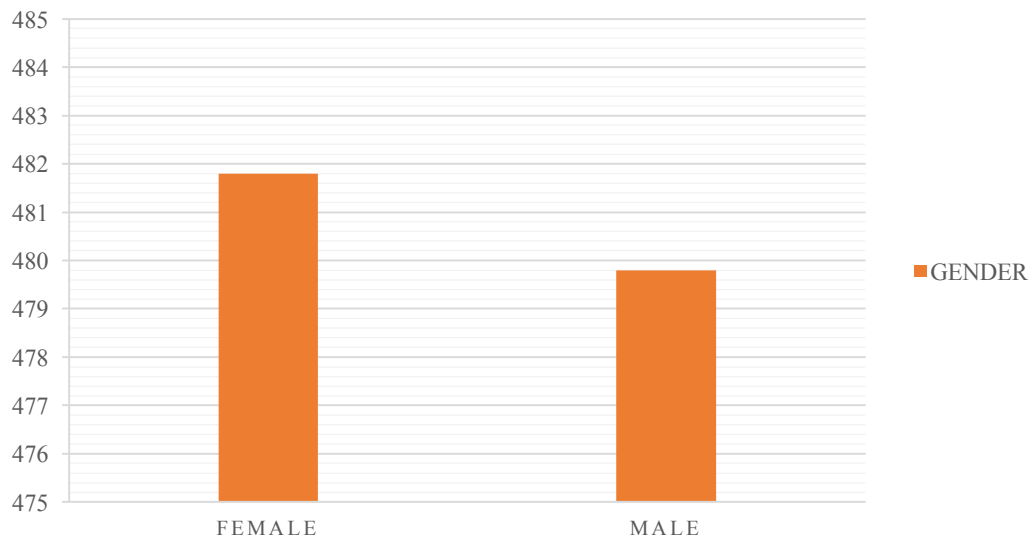
The comparative analysis also disclosed that the female teachers as well as the male teachers have shown to be equally effective in their “Preparation for teaching and planning, Knowledge of subject-matter etc. and Teacher characteristics”. Whereas, the female teachers have been found to be better effective teachers in interpersonal skills in comparison to the male secondary school teachers. Figure 3.20 reflects graphical representation of comparative analysis of interpersonal skills with respect to gender.

FIGURE 3.20 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF INTERPERSONAL SKILLS WITH RESPECT TO GENDER



Hence for teacher effectiveness, the data provides sufficient evidence via comparative analysis that the female teachers in comparison to the male teachers are better effective teachers. The following figure 3.21 displays graphical representation of comparative analysis of teacher effectiveness with respect to gender.

FIGURE 3.21 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF TEACHER EFFECTIVENESS WITH RESPECT TO GENDER



EXPERIENCE

The above table 3.10 displays F-ratios for experience on teacher effectiveness and its dimension i.e. “Preparation for teaching and planning, Classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” of secondary school teachers came out to be as 5.684, 3.835, 4.446, 1.648, 0.935, 4.952 respectively. The results indicate that the secondary school teachers having low, average and high experience are not differing significantly at the 0.05 significance level in teacher effectiveness dimensions viz. “Knowledge of subject-matter etc., Teacher characteristics”. Thus, hypothesis $H_{01,3}$, i.e. “There exists no significant difference in teacher effectiveness of teachers with respect to experience” is accepted in teacher effectiveness dimensions viz. “knowledge of subject-matter etc., teacher characteristics”. Also, secondary school teachers having low, average and high experience differ significantly at the 0.05 significance level in the teacher effectiveness and its dimension i.e., “Preparation for teaching and planning, Classroom management, Interpersonal relations”.

The results revealed that teachers having experience i.e. low, average and high significantly differ in their teacher effectiveness and its dimension i.e., “Preparation for teaching and planning, Classroom management, Interpersonal relations”. For finding out significant difference between mean scores of various groups (low, average and high) of secondary school teachers, the applied test was Tukey’s Post-Hoc HSD. The results of the same have been documented in table 3.11.

TABLE 3.11

TUKEY’S POST-HOC HSD TEST SUMMARY

TEACHER EFFECTIVENESS				
·EXPERIENCE (A)	·EXPERIENCE (B)	·Mean Difference (A-B)	·Std. Error	·Sig.
Average	Low	1.900	0.888	.083
High	Low	3.543	1.061	.003
High	Average	1.643	1.078	.281

PREPARATION FOR TEACHING AND PLANNING				
·EXPERIENCE (A)	·EXPERIENCE (B)	·Mean Difference (A-B)	·Std. Error	·Sig.
Average	Low	0.093	0.208	.894
High	Low	0.651	0.248	.024
High	Average	0.558	0.252	.069
CLASSROOM MANAGEMENT				
·EXPERIENCE (A)	·EXPERIENCE (B)	·Mean Difference (A-B)	·Std. Error	·Sig.
Average	Low	0.626	0.226	.016
Average	High	0.035	0.274	.991
High	Low	0.591	0.270	.074
INTERPERSONAL RELATIONS”				
·EXPERIENCE (A)	·EXPERIENCE (B)	·Mean Difference (A-B)	·Std. Error	·Sig.
Average	Low	0.428	0.314	.361
High	Low	1.171	0.375	.005
High	Average	0.743	0.381	.126

Note: Significance level= .05

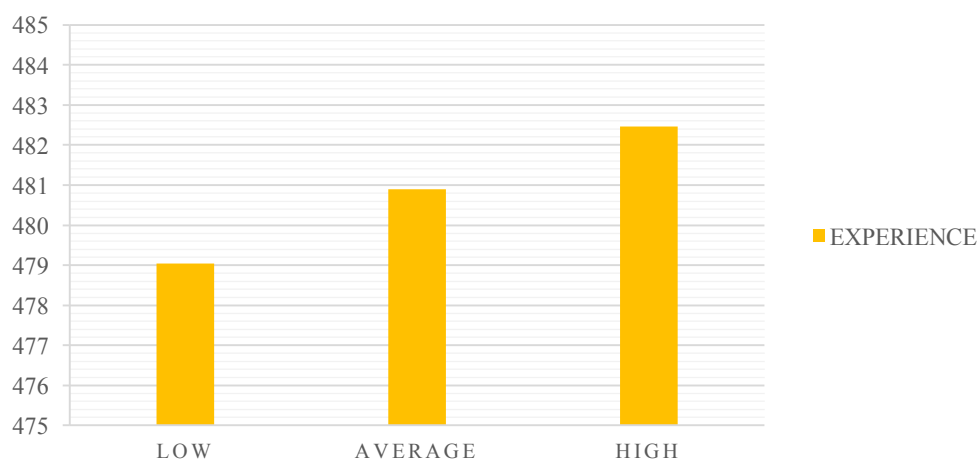
A perusal of above table 3.11 reveals the p-value of the mean difference between teachers of average and low experience is .083 and the p-value of the mean difference between high and average experience teachers is .281 and they are insignificant at .05 significance level for teacher effectiveness. While p-value of the mean difference between teachers of high and low experience is .003 and it is found to be significant at .05 significance level for teacher effectiveness.

Through the analysis, it has come to fore that secondary school teachers of high experience differ significantly in their teacher effectiveness from teachers of low experience. Whereas, teachers with high experience are not differing significantly in teacher effectiveness from teachers of low and average experience respectively. Therefore, in the light of the results, the hypothesis $H_{01,3}$, i.e. “There exists no

significant difference in teacher effectiveness of teachers with respect to experience” is partially accepted and partially rejected.

From the 3.9 table, it is clear that the teachers having high experience have better teacher effectiveness in comparison to the teachers having low teaching experience meaning thereby that comparatively teachers of high experience have higher levels of teacher effectiveness at school. The figure 3.22 displays graphical representation of comparative analysis of teacher effectiveness with respect to experience.

FIGURE 3.22
COMPARATIVE ANALYSIS OF TEACHER EFFECTIVENESS WITH
RESPECT TO EXPERIENCE PRESENTED GRAPHICALLY



The observation of table 3.11 discloses that the p-value of the mean difference between teachers of average and low experience is .894 and the p-value of the mean difference between high and average experience teachers is .069 (Significance level=.05) for preparation for teaching and planning. While the p-value of the mean difference between teachers of high and low experience is .024 and found significant at 0.05 level of significance. From the analysis, it came to fore that secondary school teachers of high experience differ significantly in their preparation for teaching and planning from teachers of low experience. Contrarily, teachers having high experience aren't differing significantly in preparation for teaching and planning from teachers of low and average experience respectively.

Therefore, in the light of the results, the hypothesis $H_{01.3}$, i.e. “There exists no significant difference in teacher effectiveness of teachers with respect to experience” is partially accepted and partially rejected in preparation for teaching and planning dimension of teacher effectiveness. From the table 3.9, it is clear that teachers of high experience have higher preparation for teaching and planning meaning than low experienced teachers meaning thereby that the teachers of high experience have comparatively higher levels of competence in preparation for teaching and planning at school. Figure 3.23 reflects the comparative analysis of preparation for teaching and planning with respect to experience graphically.

FIGURE 3.23 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF PREPARATION FOR TEACHING AND PLANNING WITH RESPECT TO EXPERIENCE

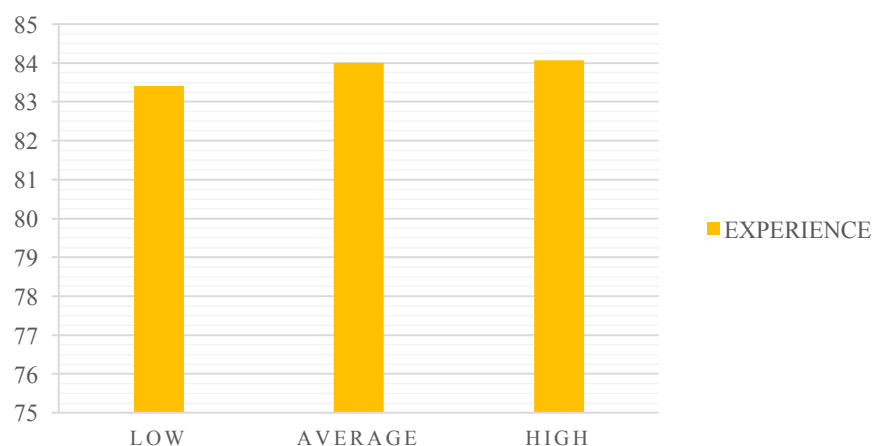
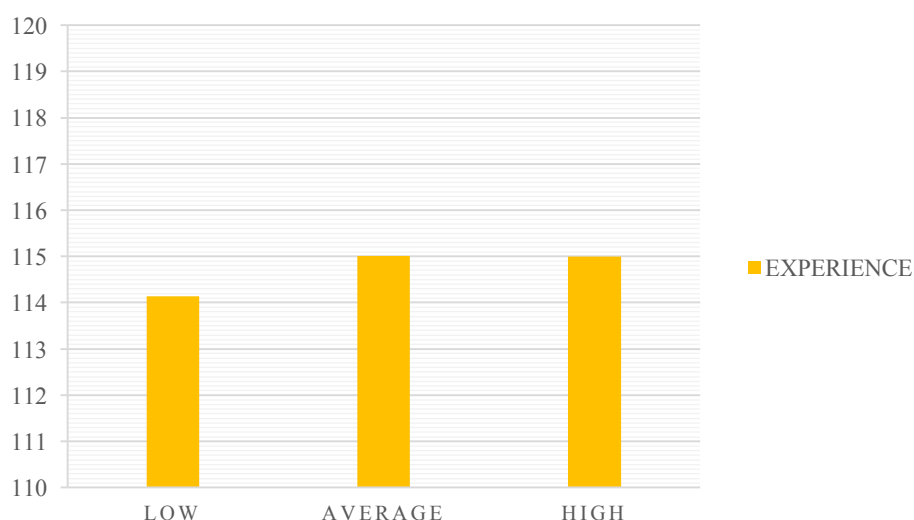


Table 3.11 reveals that for classroom management, p-value of the mean difference between teachers of average and low experience is .016 and is found significant (Significance level= .05). Meanwhile, p-value of mean difference between teachers having average and high experience is .991 and teachers of high and low experience is .074 and they are insignificant at 0.05 level of significance respectively for classroom management. It is put forth through the analysis that average experienced secondary school teachers differ significantly in their classroom management from low experienced secondary school teachers. Alternatively, the high experienced teachers aren't differing significantly in classroom management from low

experienced and average experienced secondary school teachers respectively. Hence, in the light of the results, the hypothesis $H_{01.3}$, i.e. “There exists no significant difference in teacher effectiveness of teachers with respect to experience” is partially accepted and partially rejected in the classroom management dimension of teacher effectiveness. A perusal of table 3.9 makes it crystal clear that in classroom management, the average experienced teachers are better comparatively to low experienced teachers. The graphical representation of comparative analysis of classroom management with respect to experience is presented in figure 3.24.

FIGURE 3.24 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF CLASSROOM MANAGEMENT WITH RESPECT TO EXPERIENCE

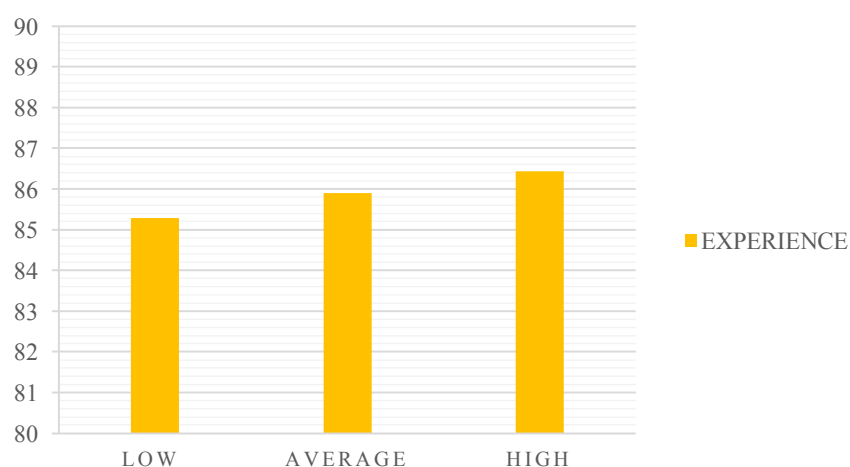


The values documented in table 3.11 reflect that the p-value of the mean difference among secondary school teachers of average and low experience is .361 and the p-value of the mean difference among high and average experience teachers is .126 ($p > .05$) for interpersonal relations dimension of teacher effectiveness. Table 3.11 also reflects that p-value of the mean difference among secondary school teachers of high and low experience is found significant (Significance level = .05) for interpersonal relations dimension of teacher effectiveness. It is insinuated via analysis that teachers of high experience are differing significantly in interpersonal relations dimension of teacher effectiveness in comparison to teachers having low experience.

Conversely, teachers having high experience differ insignificantly in their teacher effectiveness from low experienced and average experienced secondary school teachers respectively. So, the hypothesis H_{013} , i.e. “There exists no significant difference in teacher effectiveness of teachers with respect to experience” is partially accepted and partially rejected in the interpersonal relations dimension of teacher effectiveness. From the table 3.9, it is comprehensible that teachers of high experience had higher or we can say, better interpersonal relations in comparison to the low experienced teachers of secondary schools meaning thereby secondary school teachers having high experience comparatively maintain better interpersonal relations with others at the workplace. Figure 3.25 reveals the graphical representation of comparative analysis of interpersonal relations with respect to experience.

FIGURE 3.25

GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF INTERPERSONAL RELATIONS WITH RESPECT TO EXPERIENCE



TYPE OF SCHOOL x GENDER

A perusal of table 3.10 revealed the F-ratio values for the interaction in-between Type of school*Gender of teachers on the teacher effectiveness dimensions viz. Preparation for teaching and planning, Classroom management and Interpersonal relations” of secondary school teachers is 2.394, 2.394, 1.651 respectively and is found not significant ($p > .05$). Therefore, hypothesis H_{014} , i.e. “There exists no significant interaction effect of type of school and gender on teacher effectiveness of teachers” is accepted for teacher effectiveness dimensions viz. “Preparation for

teaching and planning, Classroom management and Interpersonal relations”. Thus, the results show that scores on teacher effectiveness dimensions viz. “Preparation for teaching and planning, Classroom management and Interpersonal relations” due to interaction in-between Type of school*Gender for the various sub-groups is differing insignificantly.

Also, table 3.10 discloses the F-ratio value for interaction in-between Type of school*Gender of teachers on the teacher effectiveness and its dimensions i.e. “Knowledge of subject-matter etc. and Teacher characteristics” of secondary school teachers is 8.463, 6.2, 6.76 (p<.05 level) respectively. To analyse significant difference among various subgroups, t-test has been applied to teacher effectiveness and its dimensions i.e. “Knowledge of subject-matter etc. and Teacher characteristics”. The obtained results regarding the same is revealed in table 3.12.

TABLE 3.12 ‘t’-VALUES SUMMARY FOR SUB-GROUPS OF TEACHER EFFECTIVENESS AND ITS DIMENSIONS i.e. “KNOWLEDGE OF SUBJECT-MATTER ETC. AND TEACHER CHARACTERISTICS” OF TEACHERS

·TEACHER EFFECTIVENESS		
Group 1	Group 2	t-value
·Private School Female Teachers	·Private School Male Teachers	3.925*
·Private School Female Teachers	·Government School Female Teachers	4.180*
·Private School Female Teachers	·Government School Male Teachers	3.567*
·Private School Male Teachers	·Government School Female Teachers	0.116
·Private School Male Teachers	·Government School Male Teachers	0.579
·Government School Female Teachers	·Government School Male Teachers	0.864
·KNOWLEDGE OF SUBJECT-MATTER ETC.”		
·Private School Female Teachers	·Private School Male Teachers	3.125*
·Private School Female Teachers	·Government School Female Teachers	1.336
·Private School Female Teachers	·Government School Male Teachers	0.745
·Private School Male Teachers	·Government School Female Teachers	1.855
·Private School Male Teachers	·Government School Male Teachers	2.577*
·Government School Female Teachers	·Government School Male Teachers	0.603
·TEACHER CHARACTERISTICS		
·Private School Female Teachers	·Private School Male Teachers	2.335*
·Private School Female Teachers	·Government School Female Teachers	4.305*
·Private School Female Teachers	·Government School Male Teachers	2.305*
·Private School Male Teachers	·Government School Female Teachers	1.956
·Private School Male Teachers	·Government School Male Teachers	0.080
·Government School Female Teachers	·Government School Male Teachers	2.172*

*Significance level= .05

The table 3.12 reveals for construct teacher effectiveness that its t value of the subgroups i.e. “Private school male teachers and Government school female teachers; Private school male teachers and Government school male teachers; Government school female teachers and Government school male teachers” is 0.116; 0.579; 0.864 respectively.

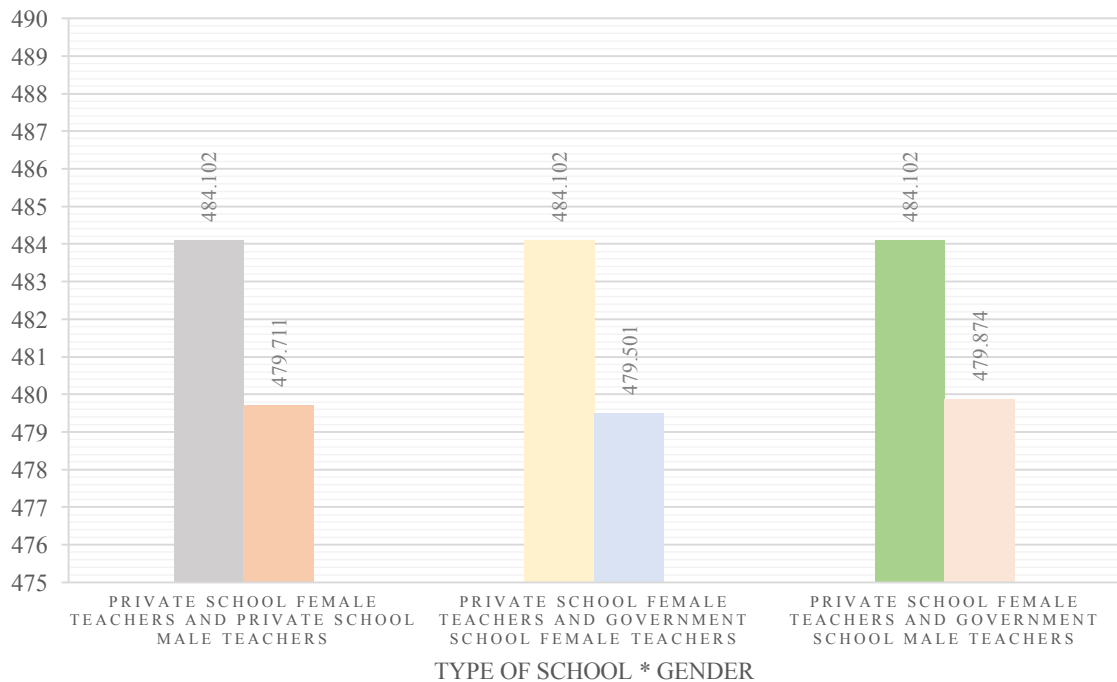
These t values are respectively found insignificant ($p > .05$). Therefore, by observing these resultant t-values, it can be concluded that these subgroups are equally effective in their teacher effectiveness. Also, the t-value of the subgroups i.e. “Private school female teachers and Private school male teachers; Private school female teachers and Government school female teachers; Private school female teachers and Government school male teachers” is 3.925; 4.180; 3.567 respectively. These t values are found significant ($p < .05$) meaning thereby that these subgroups differ from each other in their teacher effectiveness.

Also, it is clear from the mean analysis that from table 3.9 that the “Private school female teachers” are better effective teachers in comparison to the “Private school male teachers”, “Private school female teachers” are more effective teachers than “Government school female teachers.

“Private school female teachers” are more effective teachers than “Government school male teachers”. Thus, hypothesis $H_{01.4}$, i.e. “There exists no significant interaction effect of type of school and gender on teacher effectiveness of teachers” is partially accepted and partially rejected for teacher effectiveness is partially accepted and partially rejected.

The figure 3.26 displays the graphical representation of comparative analysis of teacher effectiveness with respect to interaction in-between Type of school*Gender with respect to the objectives of the study.

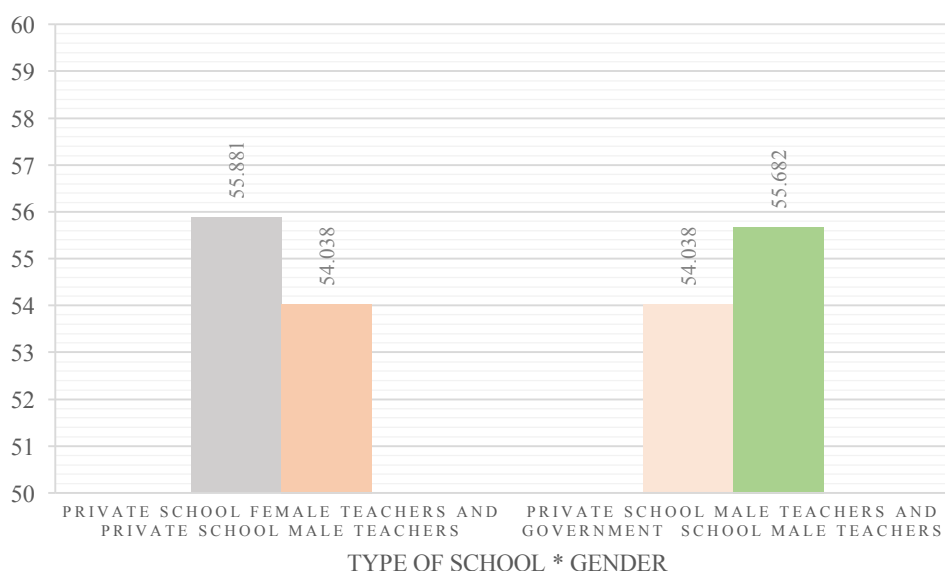
FIGURE 3.26 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF “TEACHER EFFECTIVENESS” WITH RESPECT TO TYPE OF SCHOOL* GENDER



By merely looking at the table 3.12, it is disclosed that for knowledge of subject-matter etc., its t value of various subgroups viz. “Private school female teachers and Government school female teachers; Private school female teachers and Government school male teachers; Private school male teachers and Government school female teachers; Government school female teachers and Government school male teachers” is 1.336; 0.745; 1.855; 0.603 respectively. These t values are respectively found to be insignificant ($p > .05$). Therefore, these ‘t’ values of various subgroups related to knowledge of subject matter etc. are equally effective. Whereas, the t-value of subgroups viz. “Private school female teachers and Private school male teachers; Private school male teachers and Government school male teachers” is 3.125; 2.577 respectively. These ‘t’ values are respectively found significant ($p < .05$) meaning thereby that above subgroups differ from each other in their knowledge of subject-matter etc. Also, it is clear from the mean analysis that from table 3.9, that the private school female teachers have more knowledge of subject-matter etc. than the private school male teachers; government school male teachers have more knowledge

of subject-matter etc. than the private school male teachers. Hence, hypothesis H0_{1.4}, i.e. “There exists no significant interaction effect of type of school and gender on teacher effectiveness of teachers” is partially accepted and partially rejected for teacher effectiveness dimension viz. knowledge of subject-matter etc. The figure 3.27 reflects the comparative analysis of “Knowledge of subject-matter etc.” with respect to interaction effect in-between Type of school*Gender graphically.

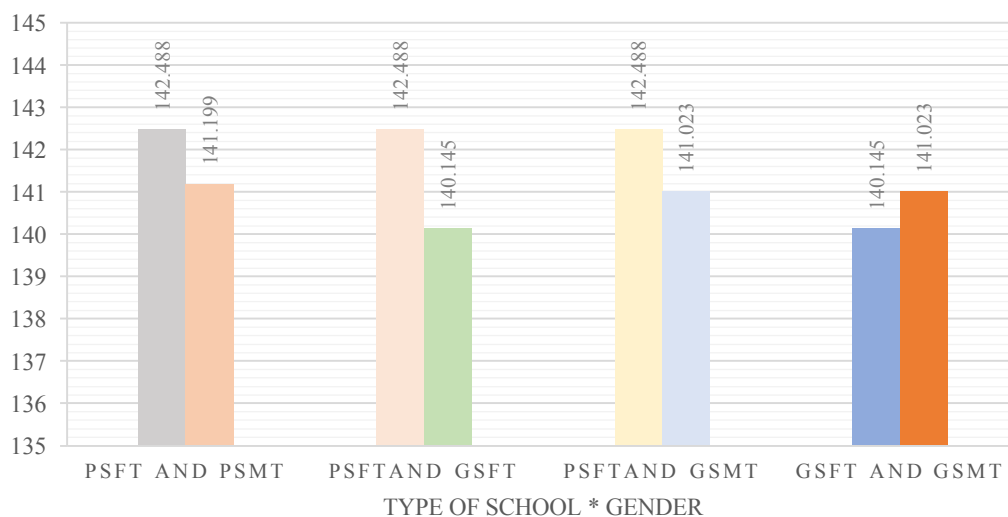
FIGURE 3.27 COMPARATIVE ANALYSIS OF “KNOWLEDGE OF SUBJECT-MATTER ETC.” WITH RESPECT TO TYPE OF SCHOOL* GENDER PRESENTED GRAPHICALLY



The above table 3.12 shows the teacher characteristics t value of different subgroups i.e. “Private school male teachers and Government school female teachers; Private school male teachers and Government school male teachers” is 1.956; 0.080 respectively. These are respectively found insignificant ($p > .05$). Therefore, it may be deduced that these subgroups have equally effective teacher characteristics. Contrarily, the t-value of different subgroups of teacher characteristics i.e. “Private school female teachers and Private school male teachers; Private school female teachers and Government school female teachers; Private school female teachers and Government school male teachers; Government school female teachers and Government school male teachers” is 2.335; 4.305; 2.305; 2.172 respectively. These

are respectively found significant ($p < .05$). Hence this points out that these subgroups differ from each other in their teacher effectiveness. It has come to fore from the mean analysis from table 3.9 that the private school female teachers have better teacher characteristics than “Private school male teachers; Government school female teachers; Government school male teachers”. Government school male teachers have better teacher characteristics than government school female teachers. Therefore, hypothesis $H_{0.4}$, i.e. “There exists no significant interaction effect of type of school and gender on teacher effectiveness of teachers” is partially accepted and partially rejected for teacher effectiveness dimension viz. teacher characteristics. Figure 3.28 displays the graphical representation of comparative analysis of teacher characteristics on the basis of joint effect in-between Type of school*Gender.

FIGURE 3.28 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF “TEACHER CHARACTERISTICS” WITH RESPECT TO TYPE OF SCHOOL* GENDER



TYPE OF SCHOOL x EXPERIENCE

Perusal of table 3.10 leads to discovering that the ‘F’ values due to interaction in-between Type of school*Experience of teachers on teacher effectiveness and its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” are found to be 0.228; 0.863; 2.018; .118; 0.122; 1.911 respectively and they are

respectively found insignificant ($p > .05$). The results indicate that Type of school*Experience function independently. Hence, hypothesis $H_{01.5}$, i.e. “There exists no significant interaction effect of type of school and experience on teacher effectiveness of teachers” is accepted. The results are revealing that the teachers’ perception teacher effectiveness and its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” due to interaction in-between Type of school*Experience for various subgroups is differing insignificantly.

GENDER x EXPERIENCE

Table 3.10 unfolds that the F-ratios due to effect of interaction among Gender*Experience of the teachers on their teacher effectiveness and its dimension i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” are found to be 0.308, 2.431, 0.459, 0.465, 1.063, 0.109 and they are respectively found insignificant ($p > .05$). It reveals that Gender*Experience function independently. Therefore, hypothesis $H_{01.6}$, i.e. “There exists no significant interaction effect of gender and experience on teacher effectiveness of teachers” is accepted. Therefore, there is an indication that secondary school teachers’ perception on the scores of teacher effectiveness and its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” due to interaction of Gender*Experience for different sub-groups differ insignificantly.

TYPE OF SCHOOL x GENDER x EXPERIENCE

The ‘F’ values due to interaction in-between Type of school*Gender*Experience of teacher effectiveness and its dimension i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” are found to be 0.677, 1.112, 0.104, 0.172, .529, 0.206 respectively and these F ratios are respectively found insignificant ($p > .05$). Thus, hypothesis $H_{01.7}$, i.e. “There exists no significant interaction effect of type of school, gender and experience on teacher effectiveness of teachers” is accepted. This points out that the teachers on teacher

effectiveness scores and its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” scores due to joint effect i.e. the interaction of Type of school*Gender*Experience for various subgroups do not differ significantly.

DISCUSSION

Tucker et al. (2002) described that the qualities of teachers who are effective are being caring, knowledgeable and understanding students easily. Ololube (2006) found that the working conditions have a greater impact on teachers’ performance of teaching. Shah (1991) deduced that the type of school is one of the essential determinants of “Teacher Effectiveness”. It establishes that teachers of private secondary schools are better effective teachers in preparation for teaching and planning, teacher characteristics and in their interpersonal skills than the government secondary school teachers. The teachers of private secondary schools have slightly better adoption of variety of teaching methods and employing different types of A-V aids; in-depth intellect; good sense of humour; ease and confidence to teach; all-round developed personality; motivate and stimulate learners for independent thinking; good relationship with the learners, other teachers, parents, community, society at large comparatively to the teachers of government secondary schools. Also, in present study, it is revealed that teachers of private secondary schools and teachers of government secondary schools are equally effective in their classroom management and knowledge of subject-matter etc. They equally motivate their students for learning. Whenever necessary, they equally resort to remedial teaching. They equally value interaction with the pupil in their classroom. For the evaluation of students, they are equally objective. During classes, they equally try to stimulate the intellectual curiosity of their pupils. They equally have full control over the teaching subject they teach. Paite (2014) revealed that in teacher effectiveness dimension, knowledge of subject-matter etc., insignificant differences exist between the teachers of high schools on the basis of their “Type of school”. Whereas, Paite (2014) revealed that there existed no insignificant differences among high school teachers in their teacher effectiveness dimensions viz. preparation for teaching and planning, teacher characteristics and interpersonal relations. Also, Paite (2014) revealed that in the

teacher effectiveness dimension viz. “Classroom management”, insignificant differences occur in-between the teachers with regards to their “Type of school”.

In this study for teacher effectiveness, data provides sufficient evidence that private type of schools’ secondary teachers as compared to government type of schools’ secondary teachers are more effective teachers. It points to the fact that may be the teachers of private schools are better satisfied, committed and effective comparatively to their counterparts of government schools. They impart comparatively better skills and knowledge to their pupils. They have a better capability of successfully producing intended results which are deemed as their effectiveness. Okwarachukwu (2012) and Ahmed et al. (2013) revealed that private schools had a portrayal of being effective in education than government schools. Kaur (2013) revealed significant differences in teacher effectiveness among women teachers teaching in private and government schools. Alternate to the present findings, Biswas and De (1995), Dhaliwal (1996), Rizvi (2003), Newa (2007), Shukla (2008), Sridhar and Razavi (2008), Dhillon and Kaur (2010), Sharma and Tyagi (2010), Olatoye and Aanu (2011) and Singh (2012) revealed that the private and government teachers were equally effective. Whereas, Raja and Thiagarajan (1998), Raza (2010), Gupta et al. (2011), Babu and Kumari (2013) and Shah and Thoker (2013) revealed significant differences between teachers with regards to “Type of school” in their teacher effectiveness.

The teachers on the basis of gender are equally effective in their “Preparation for teaching and planning, Knowledge of subject-matter etc. and Teacher characteristics”. This is due to the fact that the female and male secondary school teachers are equally effective in their planning their lessons in advance. They equally adjust their time of teaching judiciously. They equally possess supportive behaviour. Teachers on teacher effectiveness dimensions viz. “preparation for teaching and planning, classroom management and interpersonal relations” due to the interaction in-between Type of school*Gender for various subgroups are differing insignificantly. They are equally and fairly creative. They equally have a good expression. The female teachers as compared to the male counterparts are better effective teachers. It is maybe since female teachers are more student-oriented, have

personal attitudes, are highly enthusiastic, have strong human-relations, have good public-relation skills, are committed to personal feelings, are sensitive, are cooperative and consequently, they spend more time in the improvement of the climate of the classroom.

Datta (2015) found insignificant differences between teachers of the secondary schools with regards to their “Gender” in their preparation for teaching and planning. Female and male teachers were less or more indifferent in the pre-active phase, in their various instructional practices and teaching styles which was found by various researchers (Starbuck, 2003; Doray, 2005; Rashidi & Rad, 2010). Also, Chaya (1974), Gupta (1977), Mutha (1980), Kang (1981), Singh (1987), Raju (1994), Dass (1995), Roul (2002), Tyagi (2004), Vijaylakshmi and Mythill (2004), Jain (2007), Akiri and Ugborugbo (2008), Potvin et al. (2008), Hussain et al. (2011), Sharma (2012), Pama et al. (2013), Shrivastava (2013), Kaur (2015) and Sunny (2015) found no insignificant differences between teachers in teacher effectiveness with regards to their “Gender”. Whereas, Peri (1985), Subbarayan (1985), Singh (1987), Krishna and Singh (1995), Babu and Gnanaguru (1997), Riti (2000), Vijayalakshmi (2002), Amandeep and Gurpeet (2005), Srivastava (2005), Malik (2006), Saxena and Singh (2008), Kauts and Saroj (2009), Dhillon and Navdeep (2010), Kalra (2010), Madhusudhana and Mani (2010), Sodhi (2010), Mishra (2011), Jha and Singh (2012), Sawhney and Kaur (2011) and Pachaiyappan and Raj (2014) revealed that the teacher effectiveness is gender-neutral. In consonance to the present study, Patil & Deshmukh (1993), Bishwas and De (1995), Rao (1987), Aggarwal (2003), Kauts and Sahni (2007), Goel (2012), Yadav (2012) and Joshi (2015) found higher teacher effectiveness in female teachers as compared to the male teachers. Further, Datta (2015) also disclosed that female school teachers in comparison to their male counterparts are more effective.

The female teachers of the secondary schools are better effective in knowledge of subject-matter etc., interpersonal skills than the male secondary school teachers. The interaction between type of school and gender of secondary school teachers on teacher effectiveness and its dimensions i.e. knowledge of subject-matter etc. and teacher characteristics is found to be significant. The most essential characteristic of

an effective teacher is having knowledge and mastery over the subject-matter (Wilson et al., 2001; Allen, 2003; Rice, 2003; Darling-Hammond, 2006; Imig & Imig, 2006). Irrespective of his/her gender, every effective teacher has profound knowledge of their subject-matter (Clark, 1993; Sullivan, 2001; Campbell et al., 2004; Gurney, 2007). Irrespective of their gender, knowledgeable teachers were considered as effective by their students (McBer, 2000). Paite (2014) revealed that there existed insignificant difference in-between high school teachers in their classroom management dimension of teacher effectiveness on the basis on their "Gender". Also, it was revealed that the female teachers of high schools do not differ with each other in their teacher characteristics dimension of teacher effectiveness. Whereas, Paite (2014) gave a revelation that no insignificant differences existed between female and male teachers of high schools in their teacher effectiveness dimensions viz. "Preparation for teaching and planning; Knowledge of subject-matter etc. and Interpersonal relations". Datta (2015) also revealed insignificant differences in teachers with regards to gender in "Knowledge of subject-matter etc." Also, an insignificant difference was found according to the gender of the trained secondary government aided school teachers (Chudgar & Sankar, 2008; Rashidi & Rad, 2010; Singh, 2012; Wood, 2012). This is maybe because various similarities exist in the teaching styles of female and male teachers as they have less or more equally effective behaviour for the acquirement of curricular knowledge for teaching better (Sandler et al., 1996; Whitworth et al., 2002; Rashidi & Rad, 2010; Zivkovic et al., 2012).

The data provides sufficient evidence for teacher effectiveness that, the teachers of secondary schools having low, average and high experience aren't differing significantly in their teacher effectiveness dimensions viz. knowledge of subject-matter etc., teacher characteristics. Teachers of high experience scored more on teacher effectiveness, preparation for teaching and planning and interpersonal relations than teachers of low experience. Teachers of average experience had scored more in classroom management than teachers of low experience meaning thereby teachers of average experience are better in handling and managing their classrooms. Furthermore, Hung and Liu (1999) and Sood and Anand (2010) revealed that the

teachers having more experience showed more commitment towards their teaching profession. The perception of teachers on teacher effectiveness and its dimension i.e. “Preparation for teaching and planning, Classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” due to interaction effect of type of school and experience; gender and experience; type of school, gender and experience for various subgroups aren’t differing significantly. Every effective teacher provides instruction in different approaches to students to increase student achievement measurably and demonstrates curriculum knowledge (Grant & Drafall, 1991; Clark, 1993; Danielson 1996; Sullivan, 2001; Marzano, 2007). Schiefelbein and Simmons (1981) and Padmanabhaiah (1986) revealed that the teachers with lengthier teaching experience are better in their teacher effectiveness. Gupta (1988), Edwin (1991), Babu (1992), Shah (1995), Pushpam and Soundarajan (2004), Jain (2007) and Sunny (2015) indicated that the teacher effectiveness with regards to teachers’ experience isn’t insignificant.

Also, Shrivastava (2013) had put forth that experience of teaching has significant effect towards secondary school teachers’ teacher effectiveness. Whereas, Pandey and Maikhuri (1999), Ghali (2002), Hanspal and Sahu (2008), Sodhi (2010), Vishalakshi (2013) and Rajyam (2014) revealed that service experience doesn’t influence teacher effectiveness. It is also disclosed in-line with present study by Shrivastava (2013) that the teachers having high experience have better teacher effectiveness as compared to low and average experienced teachers. Also, average experienced teachers have better teacher effectiveness than teachers having low experience. In consonance with the present study, Shrivastava (2013) and Katoch (2017) revealed that the interaction effect of gender and experience has no significant effect on teacher effectiveness of secondary school teachers.

3.3.1.2 SUMMARY OF 2X2X3 ANALYSIS OF VARIANCE (ANOVA) OF ADVERSITY QUOTIENT AMONG TEACHERS WITH RESPECT TO “TYPE OF SCHOOL, GENDER AND EXPERIENCE”

To determine homoscedasticity of the data, Levene’s test viz. homogeneity of variance test has been applied. Levene static of adversity quotient is 0.429 and its p-value is 0.651 Also, the levene static for all the adversity quotient’s dimensions i.e.

“Control, Ownership and Endurance, Reach” is 2.193, 2.154, 0.624 respectively with 0.139, 0.119, 0.430 as p-value respectively. The p-values are above the threshold value of 0.05 level of significance. So, there is presence of homogeneity of variance and the data can be further analysed using analysis of variance for “Adversity Quotient and its dimensions i.e. Control, Ownership and Endurance, Reach”. For studying adversity quotient of private and government school male and female secondary school teachers having low, average and high experience, descriptive statistics were calculated for different dimensions and the total score of adversity quotient. This is put forth in the table no. 3.13 below.

TABLE 3.13
DESCRIPTIVE STATISTICS SUMMARY OF ADVERSITY QUOTIENT
WITH RESPECT TO “TYPE OF SCHOOL, GENDER AND EXPERIENCE”

Type of School	Gender	Experience	Mean & S.D.	AQ	Control	OE	Reach
Private	Female	Low	M.=	67.04	14.16	45.96	7.00
		N= 51	S.D.=	7.967	4.527	6.896	3.654
		Average	M.=	71.38	15.98	47.69	7.71
		N= 45	S.D.=	7.265	3.696	6.350	4.192
		High	M.=	71.28	15.41	47.83	8.03
		N= 29	S.D.=	7.017	3.354	6.977	4.066
		Total	M.=	69.58	15.10	47.02	7.46
	N= 125	S.D.=	7.550	4.040	5.093	3.946	
	Male	Low	M.=	67.90	15.27	44.44	8.19
		N= 52	S.D.=	10.243	3.727	8.804	3.424
		Average	M.=	74.06	16.68	48.23	9.15
		N= 47	S.D.=	7.227	3.656	6.515	3.665
		High	M.=	72.92	16.38	47.00	9.54
		N= 26	S.D.=	8.153	4.614	5.506	4.501
		Total	M.=	71.26	16.03	46.40	8.83
	N= 125	S.D.=	8.659	3.384	6.748	3.769	
	Total	Low	M.=	67.48	14.72	45.19	7.56
		N= 103	S.D.=	9.152	4.160	7.915	3.580
		Average	M.=	72.75	16.34	47.97	8.45
		N= 92	S.D.=	7.415	3.849	6.427	3.976
		High	M.=	72.05	15.87	47.44	8.75
N= 55		S.D.=	7.088	3.991	6.337	4.304	
Total		M.=	70.42	15.57	46.71	8.15	
N= 250	S.D.=	8.150	3.748	5.974	3.911		
	Female	Low	M.=	65.49	13.26	44.34	7.89
		N= 61	S.D.=	10.044	5.319	7.353	3.984
		Average	M.=	65.15	13.67	43.33	8.15
		N= 39	S.D.=	7.919	4.814	8.018	3.944

Government		High	M.=	65.28	13.28	43.96	8.04
		N= 25	S.D.=	8.473	5.587	7.580	3.802
		Total	M.=	65.34	13.39	43.95	8.00
		N= 125	S.D.=	8.798	5.184	7.561	3.906
	Male	Low	M.=	64.79	13.44	43.37	7.98
		N= 43	S.D.=	10.315	4.896	7.266	3.888
		Average	M.=	68.12	14.26	45.84	8.02
		N= 58	S.D.=	9.289	4.674	6.704	3.753
		High	M.=	68.67	14.46	46.00	8.21
		N= 24	S.D.=	8.058	4.501	7.289	3.890
		Total	M.=	67.08	14.02	45.02	8.04
		N= 125	S.D.=	9.516	4.701	7.813	3.796
		Total	Low	M.=	65.20	13.34	43.94
	N= 104		S.D.=	10.113	5.125	8.169	3.926
	Average		M.=	66.93	14.02	44.84	8.07
	N= 97		S.D.=	8.504	4.715	7.325	3.811
	High		M.=	66.94	13.86	44.96	8.12
	N= 49		S.D.=	8.363	5.066	7.433	3.806
Total	M.=		66.21	13.70	44.49	8.02	
N= 250	S.D.=		9.187	4.948	7.691	3.844	
Total	Female	Low	M.=	66.2	13.67	45.08	7.45
		N= 112	S.D.=	9.150	4.973	7.162	3.850
		Average	M.=	68.49	14.90	45.67	7.92
		N= 84	S.D.=	7.723	4.381	6.337	4.060
		High	M.=	68.50	14.43	46.04	8.04
		N= 54	S.D.=	7.794	4.608	5.873	3.909
		Total	M.=	67.46	14.25	45.48	7.73
		N= 250	S.D.=	8.453	4.716	6.614	3.928
	Male	Low	M.=	66.49	14.44	43.96	8.09
		N= 95	S.D.=	10.339	4.368	8.983	3.623
		Average	M.=	70.78	15.34	46.91	8.52
		N= 105	S.D.=	8.258	3.828	5.614	3.739
		High	M.=	70.88	15.46	46.52	8.90
		N= 50	S.D.=	8.307	4.617	6.377	4.229
		Total	M.=	69.17	15.02	45.71	8.44
		N= 250	S.D.=	9.318	4.210	7.318	3.796
	Total	Low	M.=	66.33	14.02	44.57	7.74
		N= 207	S.D.=	9.961	4.709	8.049	3.753
		Average	M.=	69.76	15.15	46.36	8.25
		N= 189	S.D.=	8.085	4.078	5.962	3.887
		High	M.=	69.64	14.92	46.27	8.45
N= 104		S.D.=	8.094	4.619	6.095	4.069	
Total		M.=	68.32	14.64	45.60	8.08	
N= 500		S.D.=	8.928	4.483	6.969	3.874	
Levene Statistic [*]				0.429	2.193	2.154	0.624

Note: M.= Mean, S.D.= Standard Deviation, N= No. of Respondents, AQ= Adversity Quotient, OE= Ownership and Endurance; ^{*}p-value of all constructs>0.05 (Threshold)

In order to analyse overall and dimension-wise adversity quotient of secondary school teachers on the basis of “Type of school, Gender and Experience”, obtained scores of the same have been subjected to ANOVA viz. analysis of variance. Detailed comprehensive values of the resultant values is displayed in the table 3.14 below.

TABLE 3.14
2X2X3 ANOVA SUMMARY OF ADVERSITY QUOTIENT WITH RESPECT
TO “TYPE OF SCHOOL, GENDER AND EXPERIENCE”

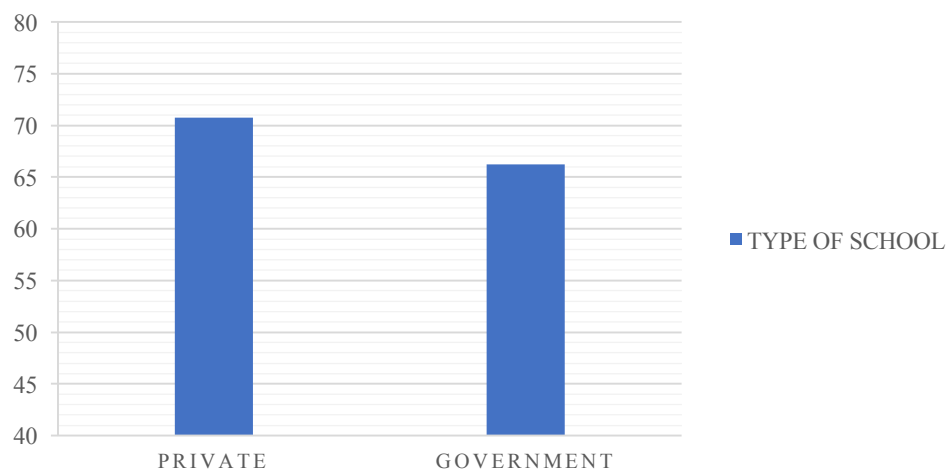
AQ							
Source	TOS	Gender	Exp.	TOS * Gender	TOS * Exp.	Gender * Exp.	TOS * Gender * Exp.
SS	2295.36	368.502	1319.58	0.647	362.581	208.798	50.753
Df	1	1	2	1	2	2	2
MS	2295.36	368.502	659.791	0.647	181.29	104.399	25.376
F	31.772	5.101	9.133	0.009	2.509	1.445	0.351
Sig.	0.000	0.024	0.000	0.925	0.082	0.237	0.704
Error= 35255.434, Df= 488; Total= 2373449, Df= 500							
Control							
Source	TOS	Gender	Exp.	TOS * Gender	TOS * Exp.	Gender * Exp.	TOS * Gender * Exp.
SS	415.060	70.210	128.761	2.190	25.279	3.741	6.962
Df	1	1	2	1	2	2	2
MS	415.060	70.210	64.381	2.190	12.640	1.871	3.481
F	21.657	3.663	3.359	0.114	0.660	0.098	0.182
Sig.	0.000	0.056	0.036	0.735	0.518	0.907	0.834
Error= 9352.548, Df= 488; Total= 117134, Df= 500							
OE							
Source	TOS	Gender	Exp.	TOS * Gender	TOS * Exp.	Gender * Exp.	TOS * Gender * Exp.
SS	639.990	9.900	352.794	90.606	100.200	192.412	26.060
Df	1	1	2	1	2	2	2
MS	639.990	9.900	176.397	90.606	50.100	96.206	13.030
F	13.666	0.211	3.767	1.935	1.070	2.054	0.278
Sig.	0.000	0.646	0.024	0.165	0.344	0.129	0.757
Error= 22854.004, Df= 488; Total= 1063821, Df= 500							
Reach							
Source	TOS	Gender	Exp.	TOS * Gender	TOS * Exp.	Gender * Exp.	TOS * Gender * Exp.
SS	5.012	58.842	43.429	52.343	22.377	0.610	0.952
Df	1	1	2	1	2	2	2
MS	5.012	58.842	21.714	52.343	11.189	0.305	0.476
F	0.335	3.932	1.451	3.498	0.748	0.020	0.032
Sig.	0.563	0.048	0.235	0.062	0.474	0.980	0.969
Error= 7302.544, Df= 488; Total= 40166.000, Df= 500							

Note: TOS= Type of School, Exp.= Experience, AQ= Adversity Quotient, OE= Ownership and Endurance

TYPE OF SCHOOL

Table 3.14 points out the 'F' value for differences in "adversity quotient and its dimensions control, ownership and endurance" of secondary school teachers with respect to "type of school" came out to be 31.772, 21.657, 13.666 respectively and were found significant ($p < .05$). Therefore, on the basis of "Type of School", teachers are differing significantly in "Adversity Quotient and its dimensions i.e. Control, Ownership and Endurance, Reach". The 'F' value for differences in reach of secondary school teachers with regards to "Type of school" came out to be 0.335 and is found insignificant ($p > .05$). Thus, hypothesis $H_{01.8}$, i.e. "There exists no significant difference in adversity quotient of teachers with respect to type of school" is accepted in reach dimension of adversity quotient and is rejected in "Adversity Quotient and its dimensions i.e. Control, Ownership and Endurance" meaning thereby that secondary school teachers from type of school differ significantly. After reviewing corresponding mean scores in descriptive statistics from table 3.13, it can be concluded that the private secondary school teachers have more adversity quotient than the government secondary school teachers. Figure 3.29 puts forth the comparative analysis of adversity quotient with respect to type of school graphically.

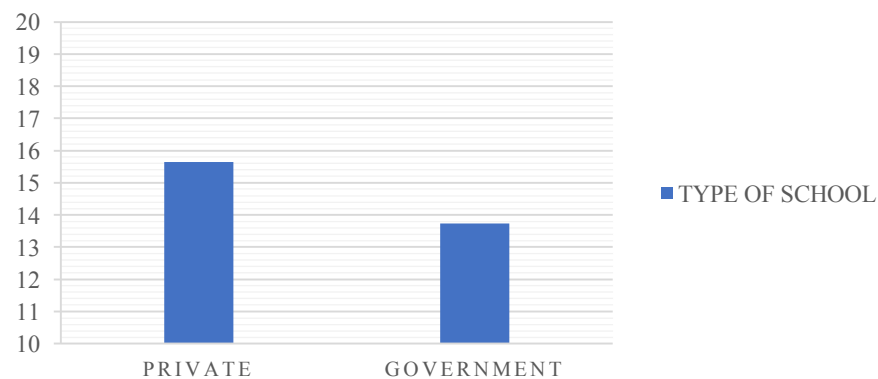
FIGURE 3.29 COMPARATIVE ANALYSIS OF ADVERSITY QUOTIENT WITH RESPECT TO TYPE OF SCHOOL PRESENTED GRAPHICALLY



Also, it was revealed that the teachers with regards to their "Type of School" have equal reach in adversities at school. Whereas, the private secondary school

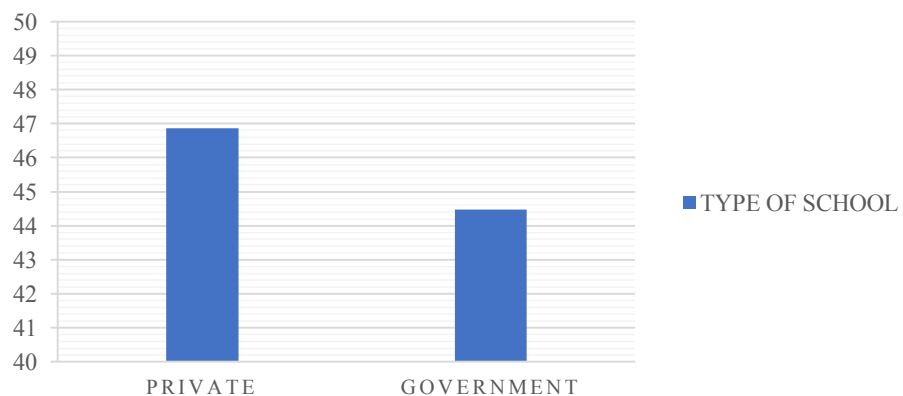
teachers have more control towards adversities at school than the government secondary school teachers. The graphical representation of comparative analysis of control with respect to type of school is presented in figure 3.30.

FIGURE 3.30 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF CONTROL WITH RESPECT TO TYPE OF SCHOOL



The data provides sufficient evidence that the teachers from private type school have better ownership and endurance than their government counterparts. It has also come to fore that in light of the calculated results of the comparative analysis that private type of schools' secondary teachers as compared to government type of schools' secondary teachers have more adversity quotient. Figure 3.31 represents the comparative analysis of ownership and endurance with respect to type of school graphically.

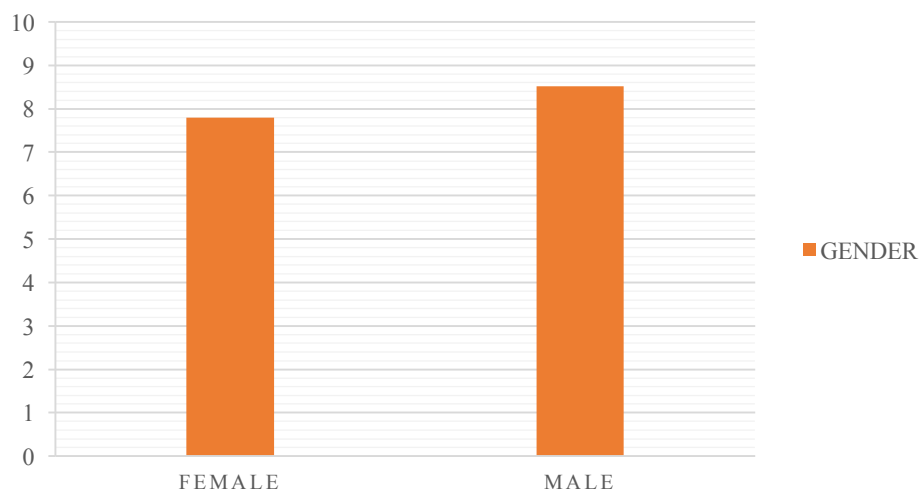
FIGURE 3.31 COMPARATIVE ANALYSIS OF OWNERSHIP AND ENDURANCE WITH RESPECT TO TYPE OF SCHOOL BY GRAPHICAL REPRESENTATION



GENDER

A perusal of table 3.14 insinuates that on gender basis, the ‘F’ value of differences in “Adversity Quotient and its dimensions i.e. Control, Ownership and Endurance, Reach” of secondary school teachers was found to be 5.101, 3.663, 0.211, 3.932 respectively. The results indicate that secondary school female teachers and male teachers differ insignificantly at 0.05 level of significance in adversity quotient dimensions viz. control, ownership and endurance. Also, the results indicate that secondary school female teachers and male teachers are differing significantly ($p < .05$) in adversity quotient and its dimension viz. reach. Hence, hypothesis $H_{01.9}$, i.e. “There exists no significant difference in adversity quotient of teachers with respect to gender” is rejected in adversity quotient and its dimension viz. reach and accepted in adversity quotient dimensions viz. control, ownership and endurance. Therefore, secondary school female and male teachers differ significantly in adversity quotient and its dimension viz. reach. The analysis of mean of reach dimension of adversity quotient disclosed that the male gender of teachers has better reach towards adversities than their female counterparts. The following figure 3.32 displays the comparative analysis of reach with respect to gender graphically.

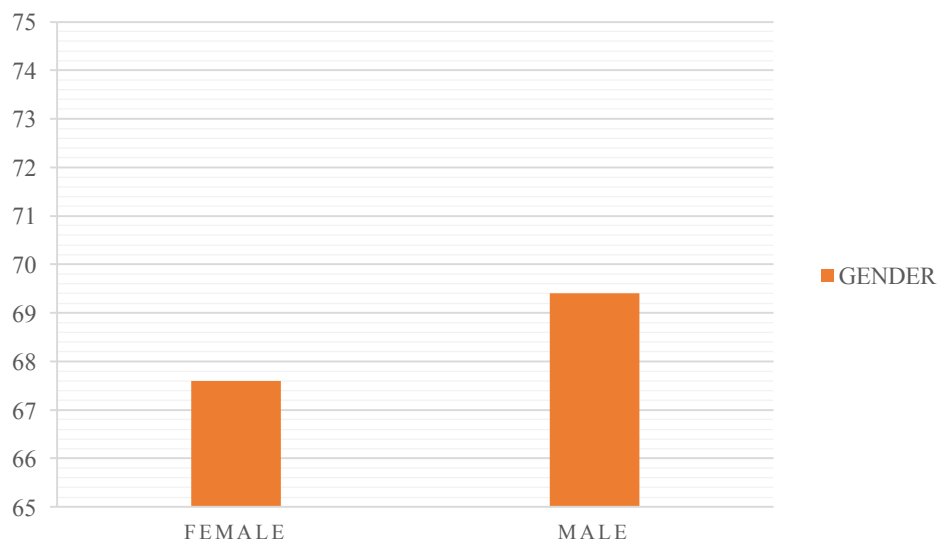
FIGURE 3.32 COMPARATIVE ANALYSIS OF REACH WITH RESPECT TO GENDER BY GRAPHICAL REPRESENTATION



Also, the results indicate that teachers with regards to “Gender”, perceive equally control, ownership and endurance. Whereas, for adversity quotient, it is

evident from the table 3.13 that male teachers have better adversity quotient than their female counterparts. The figure 3.33 shows the comparative analysis of adversity quotient with respect to gender graphically.

FIGURE 3.33 COMPARATIVE ANALYSIS OF ADVERSITY QUOTIENT WITH RESPECT TO GENDER BY GRAPHICAL REPRESENTATION



EXPERIENCE

Table 3.14 presents that ‘F’ values for main effect viz. experience on “adversity quotient and its dimensions i.e. control, ownership and endurance, reach” of secondary school teachers as 9.133, 3.359, 3.767, 1.451 respectively. They are found insignificant ($p > .05$) for reach dimension and significant ($p < .05$) for “Adversity Quotient and its dimensions i.e. Control, Ownership and Endurance”. hypothesis $H_{0.10}$, i.e. “There exists no significant difference in adversity quotient of teachers with respect to experience” is accepted in reach. The resultant values reflect that teachers having experience i.e. low, average and high differ significantly in their “Adversity Quotient and its dimensions i.e. Control, Ownership and Endurance”. The test, Tukey’s Post-Hoc HSD has been used to find significant differences between mean scores of experience’s groups i.e. low, average and high of secondary school teachers. Therefore, Table 3.15 presents the results with respect to experience.

TABLE 3.15
TUKEY'S POST-HOC HSD TEST SUMMARY

ADVERSITY QUOTIENT				
EXPERIENCE (A)	EXPERIENCE (B)	Mean Difference (A-B)	Std. Error	Sig.
Average	Low	3.429	.884	.000
Average	High	.118	1.073	.993
High	Low	3.311	1.056	.005
CONTROL				
EXPERIENCE (A)	EXPERIENCE (B)	Mean Difference (A-B)	Std. Error	Sig.
Average	Low	1.124	.449	.034
Average	High	.225	.545	.910
High	Low	.899	.536	.215
OWNERSHIP AND ENDURANCE				
EXPERIENCE (A)	EXPERIENCE (B)	Mean Difference (A-B)	Std. Error	Sig.
Average	Low	1.795	.697	.028
Average	High	.091	.846	.994
High	Low	1.704	.833	.102

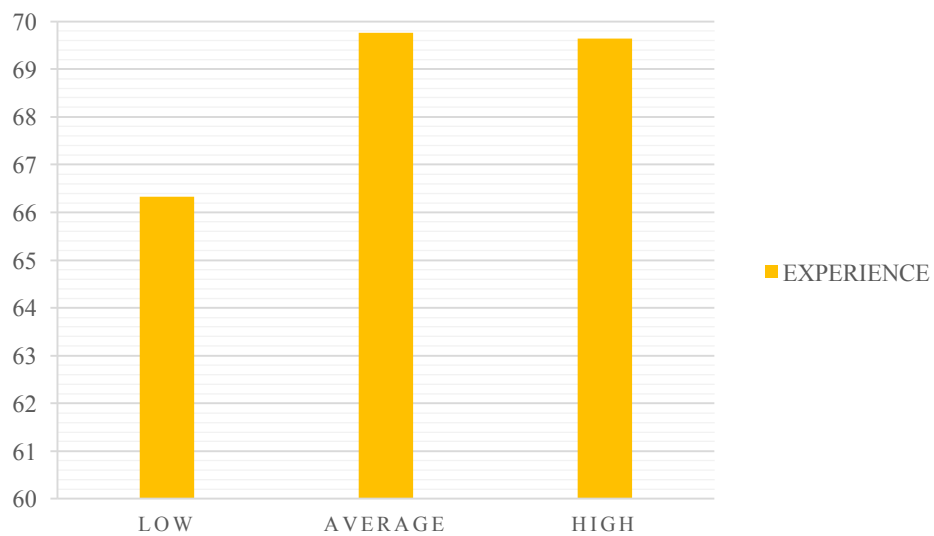
Note: Significance level= .05

Perusal of above the table 3.15 reveals the p-value of the mean difference between teachers of average and low experience is .000 and teachers of high and low experience is .005 and are found significant ($p < .05$) for adversity quotient. While p-value of the mean difference between teachers of average and high experience is .993 and is found insignificant ($p > .05$). From the analysis, it has come to fore that secondary school teachers having average experience do not differ significantly in their adversity quotient from teachers having high experience.

Whereas, secondary school teachers of average experience differ significantly in their adversity quotient from teachers of low experience. The secondary school teachers of high experience differ significantly in their adversity quotient from teachers of low experience. Therefore, hypothesis $H_{0.10}$, i.e. "There exists no significant difference in adversity quotient of teachers with respect to experience" is partially accepted and partially rejected.

The figure 3.34 displays graphical representation of comparative analysis of adversity quotient with respect to experience.

FIGURE 3.34
GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF
ADVERSITY QUOTIENT WITH RESPECT TO EXPERIENCE



The observation of table 3.15 discloses that the p-value of the mean difference between teachers of average and low experience is .034 and is found significant ($p < .05$) for control. While p-values of mean difference between teachers of average and high experience is .910 and teachers of high and low experience is .215 and they all are found insignificant ($p > .05$) for control.

From analysis, it is disclosed that secondary school teachers with average experience differ significantly in their control from teachers of low experience. Contrarily, teachers with high experience are differing insignificantly in their control from teachers of low and average experience respectively.

Therefore, hypothesis $H_{01.10}$, i.e. “There exists no significant difference in adversity quotient of teachers with respect to experience” is partially accepted and partially rejected in the control dimension of adversity quotient. Figure 3.35 reflects the comparative analysis of control with respect to experience graphically.

FIGURE 3.35
COMPARATIVE ANALYSIS OF CONTROL WITH RESPECT TO
EXPERIENCE BY GRAPHICAL REPRESENTATION

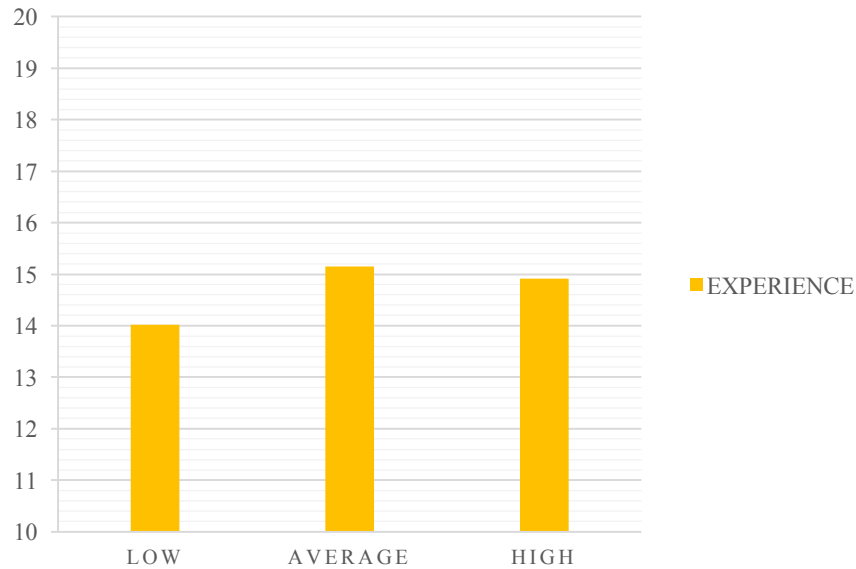
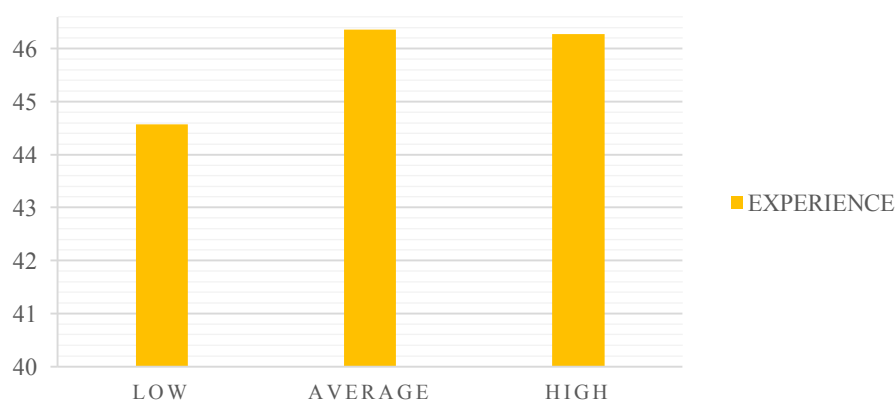


Table 3.15 reveals that for ownership and endurance, p-value of the mean difference between teachers of average and low experience is .028 and it is found significant ($p < .05$). Meanwhile, p-values of mean difference between teachers with average and high experience is .994 and teachers of high and low experience is .102 and they are found insignificant ($p > .05$) respectively for ownership and endurance. Its put forth through the analysis that secondary school teachers of average experience differ significantly in their ownership and endurance from secondary school teachers of low experience. Alternatively, high experienced secondary school teachers differ insignificantly in their ownership and endurance from secondary school teachers of low experience and average experience respectively. Hence, hypothesis $H_{0.10}$, i.e. “There exists no significant difference in adversity quotient of teachers with respect to experience” is partially accepted and partially rejected in the ownership and endurance. A perusal of table 3.9 makes it crystal clear that in ownership and endurance, average experienced secondary school teachers had scored more than low experienced teachers meaning thereby that comparatively teachers with average experience are better in ownership and endurance of adversities faced at the

workplace, home etc. The comparative analysis of ownership and endurance with respect to experience is presented in figure 3.36 graphically.

FIGURE 3.36 COMPARATIVE ANALYSIS OF OWNERSHIP AND ENDURANCE WITH RESPECT TO EXPERIENCE BY GRAPHICAL REPRESENTATION



TYPE OF SCHOOL x GENDER

A perusal of above table 3.15 revealed the ‘F’ value of interaction in-between Type of school*Gender of teachers on “Adversity Quotient and its dimensions i.e. Control, Ownership and Endurance, Reach” of secondary school teachers is 0.009, 0.114, 1.935, 3.498 respectively and is respectively found insignificant ($p > .05$). Therefore, hypothesis $H_{0.11}$, i.e. “There exists no significant interaction effect of type of school and gender on adversity quotient of teachers” is accepted. Therefore, the results show that “Adversity Quotient and its dimensions i.e. Control, Ownership and Endurance, Reach” due to the interaction of Type of school*Gender for various subgroups isn’t differing significantly.

TYPE OF SCHOOL x EXPERIENCE

It is discovered from above table 3.14 that the ‘F’ value of interaction in-between Type of school*Experience of teachers on “Adversity Quotient and its dimensions i.e. Control, Ownership and Endurance, Reach” is 2.509, 0.660, 1.070, 0.748 respectively and they are respectively found insignificant ($p > .05$). The results indicate that these demographic variables function independently. Hence, hypothesis $H_{0.12}$, i.e. “There exists no significant interaction effect of type of school and

experience on adversity quotient of teachers” is accepted. The results revealed that “Adversity Quotient and its dimensions i.e. Control, Ownership and Endurance, Reach” due to the interaction in-between Type of school*Experience for various subgroups will not be differing significantly.

GENDER x EXPERIENCE

Table 3.14 unfolds that the F-ratios due to interaction effect among Gender*Experience of secondary school teachers on “Adversity Quotient and its dimensions i.e. Control, Ownership and Endurance, Reach” are 1.445, 0.098, 2.054, 0.020 respectively and they are respectively found insignificant ($p>.05$). It reveals that these demographic variables function independently. Therefore, this data provides enough proof to accept the hypothesis $H_{0.13}$, i.e. “There exists no significant interaction effect of gender and experience on adversity quotient of teachers”. The secondary school teachers’ perception study on “Adversity Quotient and its dimensions i.e. Control, Ownership and Endurance, Reach” due to interaction of Gender*Experience for various subgroups is differing insignificantly.

TYPE OF SCHOOL x GENDER x EXPERIENCE

The ‘F’ values of interaction in-between Type of school*Gender*Experience for “Adversity Quotient and its dimensions i.e. Control, Ownership and Endurance, Reach” are 0.351, 0.182, 0.278, 0.032 respectively. These F’ values are respectively found insignificant ($p>.05$). It points out that teachers on “Adversity Quotient and its dimensions i.e. Control, Ownership and Endurance, Reach” scores due to the interaction of Type of school*Gender*Experience for various subgroups is not differing significantly. Thus, the hypothesis, hypothesis $H_{0.14}$, i.e. “There exists no significant interaction effect of type of school, gender and experience on adversity quotient of teachers” is not rejected. This points out that the secondary school teachers on the scores of “Adversity Quotient and its dimensions i.e. Control, Ownership and Endurance, Reach” due to joint effect i.e. the interaction of Type of school*Gender*Experience for various subgroups differs insignificantly.

DISCUSSION

Teaching rigors insinuate that positive traits buffering against the adversities may contribute to teacher effectiveness (Duckworth, 2009). The private secondary school teachers have more “Adversity Quotient, Control, Ownership and Endurance” than the government school counterparts. The teachers on the basis of “Type of school” have equal reach to adversities at school. Priya (2016) conducted a study on the correlates (psychological) of adversity quotient in teachers. She revealed in this study that teachers of government schools and self-financing schools in their overall adversity quotient, control, reach, ownership and endurance. Meaning thereby that the private school secondary teachers in comparison to government school secondary teachers are better in achieving their aims by fall fighting against all the odds faced by them. They are better in successfully coping up with responses that have high risks. The private school secondary teachers and government school secondary teachers have similar approach towards reaching the hard-wired patterns of adversities faced by them at school, home, society etc. Whereas, researchers like Villaver (2005), Cura and Gozum (2011) and Devakumar (2012) found no significant difference with respect to different type of schools in their adversity quotient in teachers. Also, Priya (2016) disclosed that teachers of government school are significantly higher in control dimension (adversity quotient) than self- financing school teachers, the government school teachers are significantly higher in their reach dimension of adversity quotient than financing school teachers. Further in ownership and endurance as well as in overall adversity quotient, the teachers from government schools are higher significantly comparatively to teachers from self- financing schools. In line with present study, the revelations by researchers D’Souza (2006), Ferrer (2009), Low (2010) and Hema (2015) disclosed significant differences among teachers teaching in different type of schools in their adversity quotient.

The male gender of teachers has better adversity quotient, reach comparatively to their female counterparts. Every teacher has a defining moment when they face an adversity. During the adversity, a precise pattern viz. hard-wired gets activated downward more in female secondary teachers in comparison to male secondary school teachers which causes a rippling effect throughout their entire being.

Therefore, a seemingly bumpy road comes in between the path of having less adversities since they reach out to every other part of life. The teachers on the basis of “Gender”, equally perceive control, ownership and endurance. The female and male secondary school teachers equally have control over the adversities. They have equal willingness to assume responsibility and accountability towards adversity being faced and then take up necessary measures regarding the same considering the duration of how long the problem itself and its effects last. Tripathi (2011) found that females and males have insignificant differences among them in ownership and endurance. It has also been disclosed that “Adversity Quotient” score of females is better as compared to the males. This study’s findings are in-line with the revelations of Lazaro (2004), Canivel (2010), Huijuan (2009), Kanjanakaroon (2011), Olila (2012), Bantang et al. (2013) and Cornista and Macaseat (2013). Kaur (2014) found insignificant differences in-between working executives on the basis of “Gender” in control dimension of “Adversity Quotient”.

Also, in ownership and endurance, insignificant difference occurred with regards to “Gender” in adversity quotient. Priya (2016) revealed no insignificant differences between female and male teachers in their reach dimension of adversity quotient. Contrarily, Tripathi (2011) found that females are better than males in their “control” dimension (adversity quotient) and males are better than the females in their reach dimension of adversity quotient. Kaur (2014) revealed no significant differences in working executives in their reach dimension of adversity quotient. Priya (2016) revealed no insignificant differences among teachers in their “Control, Ownership and Endurance” dimensions (adversity quotient). Whereas, significant differences existed between females and males in their adversity quotient according to the studies conducted by Johnson (2005), Ferror (2009), Low (2010), Liu (2011), Sachdev (2011), Tripathi (2011) and Baroa (2015). The contrasting revelations are by researchers like Lazaro-Capones and Antonette (2004), Huijuan (2009), Patdo et al. (2011), Cura and Gozum (2011), Olila (2012), Cornista and Mascasaet (2013), Napire (2013), Kaur (2014), Shen (2014), Danny et al. (2015) and Hema (2015) who revealed that respondents were equal in their adversity quotient with respect to their

gender. Also, in line with the present study, Tripathi (2011) and Priya (2016) found no insignificant difference in adversity quotient with respect to gender.

Teachers having experience i.e. low, average and high equally perceive their reach towards adversity. The main effect of experience was found significant for “Adversity Quotient and its dimensions i.e. Control, Ownership and Endurance” of secondary school teachers. The interaction in-between Type of school*Gender; Type of school*Experience; Gender*Experience; Type of school*Gender*Experience of secondary school teachers on “Adversity Quotient and its dimensions i.e. Control, Ownership and Endurance, Reach” was insignificant indicating that they have no joint effect on secondary school teachers. The adversity quotient in teachers helps in determining that whether they are able to get destroyed or crippled; they would stand true and strong and whether they would continue growing while facing an adversity considering their years of experience in the teaching profession. Kaur (2014) revealed that differences (significant) in working executives with regards to “Experience” in their control dimension of adversity quotient.

Also, it was found that in ownership and endurance, significant differences with respect to experience existed in the respondents. Contrarily, in reach dimension of adversity quotient, no significant differences existed with respect to experience. Also, contrasting revelations were from Lazaro- Capones (2004), Canivel (2010), Olila (2012) and Bantang et al. (2013). In line with the present study, Thomas-Sharksnas (2002) established a relationship between tenure and adversity quotient. Elaine (2005) and Tripathi (2011) found a relationship between experience and adversity quotient. Kaur (2014) revealed significant differences between working executives with respect to their experience in their adversity quotient. Shivaranjani (2018) revealed that there exists a significant difference with respect to experience in executives having experience of less than five years and also in executives having experience between five to ten years in their adversity quotient.

3.3.1.3 SUMMARY OF 2X2X3 ANALYSIS OF VARIANCE (ANOVA) OF ALIENATION AMONG TEACHERS WITH RESPECT TO “TYPE OF SCHOOL, GENDER AND EXPERIENCE”

For testing homoscedasticity of the data, the Levene’s test viz. homogeneity of variance test has been calculated. Levene static of alienation is 0.526 and its p-value is 0.469 and the levene static for all the dimensions of alienation i.e. work alienation, social isolation, cultural estrangement is 0.140, 0.517, 1.744 respectively with 0.709, 0.472, 0.187 as p-value, respectively. These p-values are above the threshold value of 0.05 level of significance, therefore there is a homogeneity of variance and the data can be further analysed for alienation and its dimensions viz. work alienation, social isolation, cultural estrangement using analysis of variance. To study the alienation of private and government school male and female secondary school teachers having low, average and high experience, descriptive statistics for all dimensions and overall alienation score is documented in table no. 3.16.

TABLE 3.16
DESCRIPTIVE STATISTICS OF ALIENATION WITH
RESPECT TO “TYPE OF SCHOOL, GENDER AND EXPERIENCE”

Type of School	Gender	Experience	Mean & S.D.	Alienation	WA	SI	CE
Private	Female	Low	M.=	43.25	21.31	11.86	10.08
		N= 51	S.D.=	9.522	3.976	2.682	2.712
		Average	M.=	39.29	18.02	13.02	8.24
		N= 45	S.D.=	7.659	2.042	3.014	1.990
		High	M.=	38.52	17.52	12.21	8.79
		N= 29	S.D.=	7.288	2.867	2.200	2.094
		Total	M.=	40.73	19.25	12.36	9.12
	N= 125	S.D.=	8.596	2.811	2.710	2.458	
	Male	Low	M.=	42.12	20.48	11.38	10.25
		N= 52	S.D.=	9.883	2.350	2.385	2.550
		Average	M.=	37.55	16.09	12.00	9.47
		N= 47	S.D.=	7.216	2.620	2.483	1.501
		High	M.=	38.31	17.04	12.00	9.27
		N= 26	S.D.=	7.863	2.035	2.050	2.933
		Total	M.=	39.61	18.11	11.74	9.75
	N= 125	S.D.=	8.205	2.674	2.551	2.330	
	Total	Low	M.=	42.68	20.89	11.62	10.17
		N= 103	S.D.=	9.675	2.144	2.526	2.620
		Average	M.=	38.40	17.03	12.50	8.87
		N= 92	S.D.=	7.548	2.510	2.767	1.853
		High	M.=	38.42	17.29	12.11	9.02
N= 55	S.D.=	7.495	2.458	2.594	2.513		

		Total	M.=	40.17	18.68	12.05	9.44
		N= 250	S.D.=	8.405	2.760	2.637	2.411
Government	Female	Low	M.=	42.10	20.62	10.97	10.51
		N= 61	S.D.=	10.122	2.931	2.371	2.413
		Average	M.=	46.00	22.85	11.00	12.18
		N= 39	S.D.=	7.071	3.412	2.350	3.051
		High	M.=	42.80	20.88	10.64	11.28
		N= 25	S.D.=	7.784	2.357	2.290	2.993
		Total	M.=	43.46	21.37	10.90	11.18
		N= 125	S.D.=	8.925	3.781	2.662	2.818
		Male	Low	M.=	43.33	21.16	11.02
	N= 43		S.D.=	10.054	3.733	2.277	2.513
	Average		M.=	41.33	19.07	12.10	10.16
	N= 58		S.D.=	9.850	2.797	2.963	2.745
	High		M.=	41.79	18.25	11.79	11.75
	N= 24		S.D.=	8.536	2.367	2.623	2.863
	Total		M.=	42.10	19.63	11.67	10.80
	N= 125	S.D.=	9.653	2.510	2.678	2.744	
	Total	Low	M.=	42.61	20.85	10.99	10.77
		N= 104	S.D.=	10.063	2.817	2.317	2.462
Average		M.=	43.21	20.59	11.65	10.97	
N= 97		S.D.=	9.094	2.917	2.138	3.026	
High		M.=	42.31	19.59	11.20	11.51	
N= 49		S.D.=	8.091	2.469	2.470	2.909	
Total		M.=	42.78	20.50	11.29	10.99	
N= 250	S.D.=	9.302	2.690	2.683	2.783		
Total	Female	Low	M.=	42.62	20.94	11.37	10.31
		N= 112	S.D.=	9.827	2.486	2.529	2.551
		Average	M.=	42.40	20.26	12.07	10.07
		N= 84	S.D.=	8.083	2.285	2.273	3.203
		High	M.=	40.50	19.07	11.48	9.94
		N= 54	S.D.=	7.755	2.327	2.307	2.818
		Total	M.=	42.09	20.31	11.63	10.15
	N= 250	S.D.=	8.851	2.391	2.750	2.834	
	Male	Low	M.=	42.66	20.79	11.22	10.65
		N= 95	S.D.=	9.926	2.493	2.324	2.559
		Average	M.=	39.64	17.73	12.06	9.85
		N= 105	S.D.=	8.293	2.866	2.739	2.290
		High	M.=	39.98	17.62	11.90	10.46
		N= 50	S.D.=	8.297	2.712	2.813	3.131
		Total	M.=	40.86	18.87	11.71	10.28
	N= 250	S.D.=	9.027	2.142	2.608	2.594	
	Total	Low	M.=	42.64	20.87	11.30	10.47
		N= 207	S.D.=	9.848	2.471	2.429	2.554
		Average	M.=	40.87	18.86	12.06	9.95
		N= 189	S.D.=	8.294	2.198	2.974	2.728
		High	M.=	40.25	18.37	11.68	10.19
N= 104		S.D.=	7.985	2.069	2.548	2.969	
Total		M.=	41.47	19.59	11.67	10.21	
N= 500	S.D.=	8.952	2.302	2.676	2.715		
Levene Static *				0.526	0.140	0.517	1.744

Note: M.= Mean, S.D.= Standard Deviation, N= No. of Respondents, WA= Work Alienation, SI= Social Isolation, CE= Cultural Estrangement; *p-value of all constructs>0.05 (Threshold)

In order to analyse alienation of private and government school male and female secondary school teachers having low, average and high experience, the scores that were obtained have been subjected to ANOVA. The comprehensive details of the same are reflected in table no. 3.17.

TABLE 3.17
2X2X3 ANOVA SUMMARY OF ALIENATION WITH
RESPECT TO “TYPE OF SCHOOL, GENDER AND EXPERIENCE”

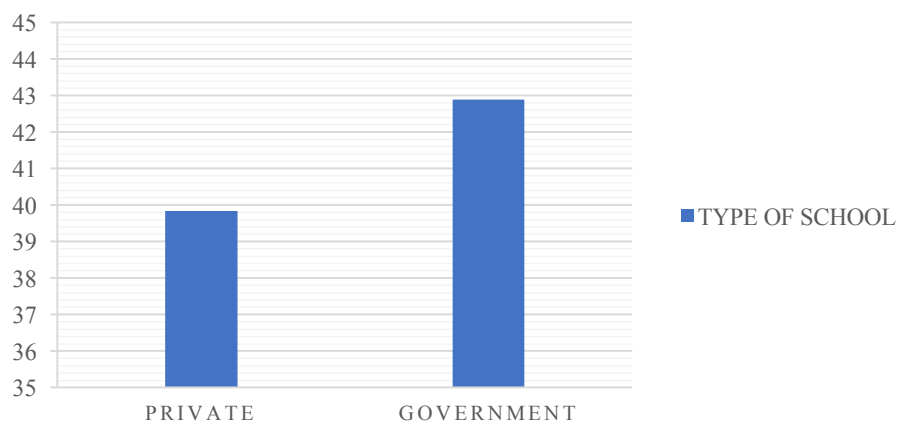
Alienation							
Source	TOS	Gender	Exp.	TOS * Gender	TOS * Exp.	Gender * Exp.	TOS * Gender * Exp.
SS	1048.91	177.870	464.088	5.864	698.609	272.246	172.697
Df	1	1	2	1	2	2	2
MS	1048.91	177.870	232.044	5.864	349.304	136.123	86.349
F	13.71	2.325	3.033	0.077	4.566	1.779	1.129
Sig.	0.000	0.128	0.049	0.782	0.011	0.170	0.324
Error= 37334.221, Df= 488; Total= 1523695, Df= 500							
WA							
Source	TOS	Gender	Exp.	TOS * Gender	TOS * Exp.	Gender * Exp.	TOS * Gender * Exp.
SS	479.214	260.126	549.012	21.462	374.382	178.540	82.934
Df	1	1	2	1	2	2	2
MS	479.214	260.126	274.506	21.462	187.191	89.270	41.467
F	13.022	7.068	7.459	0.583	5.087	2.426	1.127
Sig.	0.000	0.008	0.001	0.445	0.007	0.089	0.325
Error= 17958.931, Df= 488; Total= 298063.000, Df= 500							
SI							
Source	TOS	Gender	Exp.	TOS * Gender	TOS * Exp.	Gender * Exp.	TOS * Gender * Exp.
SS	77.519	1.241	49.696	51.190	3.054	8.049	15.877
Df	1	1	2	1	2	2	2
MS	77.519	1.241	24.848	51.190	1.527	4.025	7.939
F	5.789	0.093	1.856	3.823	0.114	0.301	0.593
Sig.	0.017	0.761	0.157	0.051	0.892	0.741	0.553
Error= 6535.066, Df= 488; Total= 162859.000, Df= 500							
CE							
Source	TOS	Gender	Exp.	TOS * Gender	TOS * Exp.	Gender * Exp.	TOS * Gender * Exp.
SS	372.506	2.815	22.575	24.440	88.185	19.796	92.006
Df	1	1	2	1	2	2	2
MS	372.506	2.815	11.288	24.440	44.092	9.898	46.003
F	58.327	0.441	1.767	3.827	6.904	1.550	7.203
Sig.	0.000	0.507	0.172	0.051	0.001	0.213	0.001
Error= 3116.619, Df= 488; Total= 90983.000, Df= 500							

Note: TOS= Type of School, Exp.= Experience, WA= Work Alienation, SI= Social Isolation, CE= Cultural Estrangement

TYPE OF SCHOOL

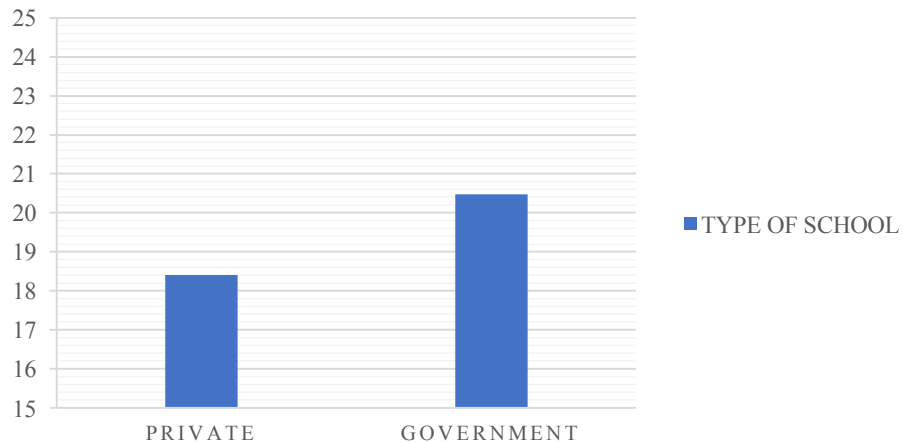
It is clear from above table 3.17 that the F-ratios for differences in alienation and its dimensions i.e. work alienation, social isolation and cultural estrangement of teachers of secondary schools which are private and government “Type of school” are 13.71, 13.022, 5.789, 58.327 respectively. These have been respectively found to be differing significantly ($p < .05$). Therefore, the hypothesis $H_{0.15}$, i.e. “There exists no significant difference in alienation of teachers with respect to type of school” for alienation and its dimensions i.e. work alienation, social isolation and cultural estrangement is not accepted. Thus, secondary school teachers from two “Type of School” differ significantly in their alienation and its dimensions i.e. work alienation, social isolation and cultural estrangement. After reviewing the corresponding mean scores of alienation in the descriptive statistics from table 3.16, the government teachers have higher alienation comparatively to their private counterparts. Figure 3.37 shows comparative analysis of alienation with respect to type of school graphically.

FIGURE 3.37 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF ALIENATION WITH RESPECT TO TYPE OF SCHOOL



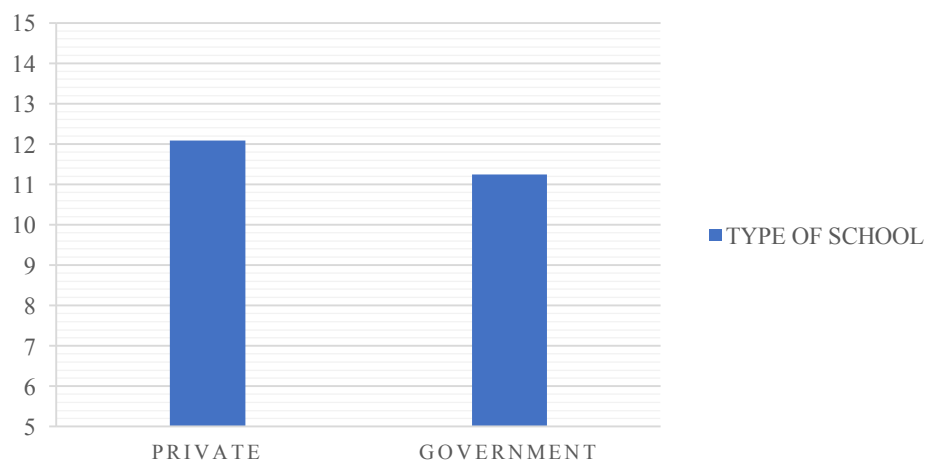
Also, a perusal of the table 3.16 puts forth that the government teachers have better work alienation in comparison their private counterparts. Figure 3.38 reflects graphical representation of comparative analysis of work alienation with respect to type of school.

FIGURE 3.38 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF WORK ALIENATION WITH RESPECT TO TYPE OF SCHOOL



In the present study, it came into the observation that private teachers have higher social isolation comparatively to their government counterparts. Following figure 3.39 displays graphical representation of comparative analysis of social isolation with respect to type of school.

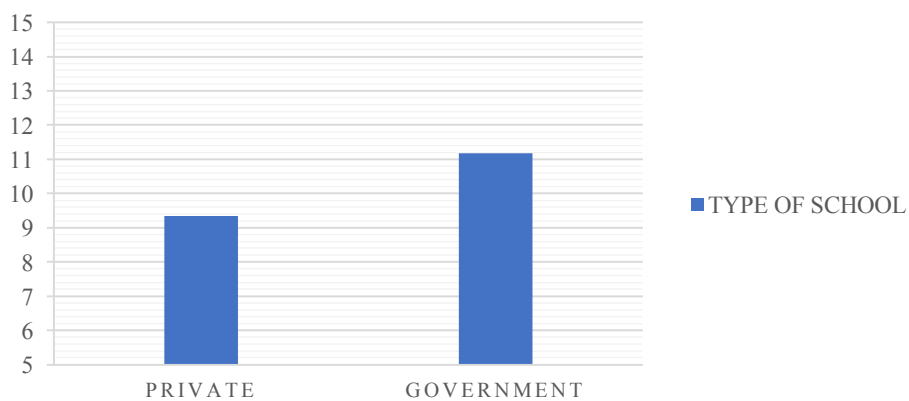
FIGURE 3.39 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF SOCIAL ISOLATION WITH RESPECT TO TYPE OF SCHOOL



It was also observed that the government teachers have higher cultural estrangement in comparison to their private counterparts. Henceforth, data provides

sufficient evidence that private type of schools' secondary teachers as compared to government type of schools' secondary teachers have more feelings of being alienated at their schools. The figure 3.40 shows comparative analysis of cultural estrangement with respect to type of school graphically.

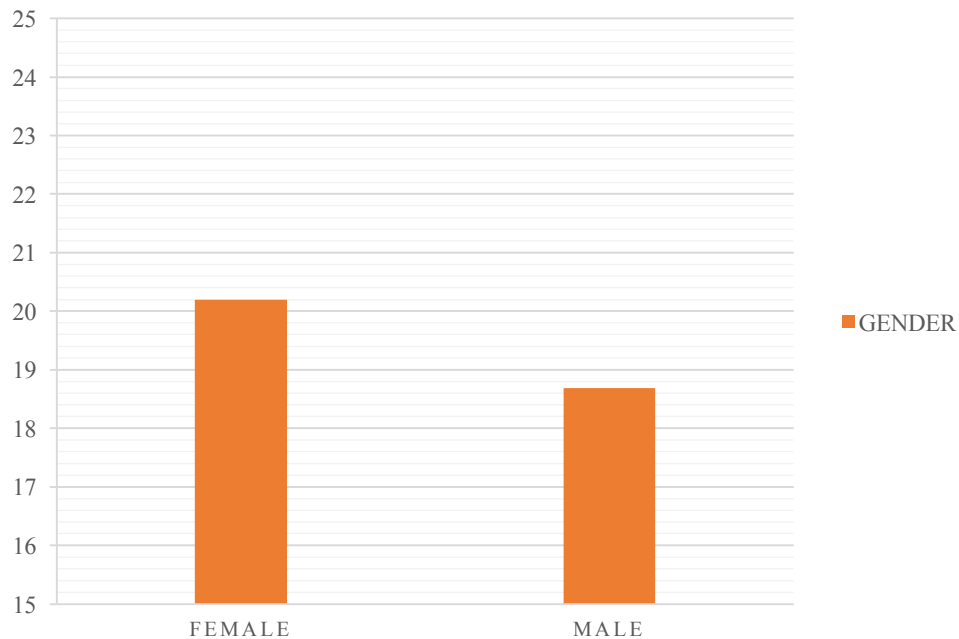
FIGURE 3.40 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF CULTURAL ESTRANGEMENT WITH RESPECT TO TYPE OF SCHOOL



GENDER

By observation of above table 3.17 on gender basis, the 'F' values of differences in alienation and its dimensions i.e. work alienation, social isolation and cultural estrangement of secondary school teachers were found to be 2.325, 7.068, 0.093, 58.327 respectively. They are insignificant ($p > .05$) for alienation and its dimensions i.e. social isolation and cultural estrangement and significant ($p < .05$) in alienation dimension viz. work alienation. The teachers equally perceive alienation and its dimensions i.e. social isolation and cultural estrangement with regards to gender. By mean analysis from table 3.16, it is obvious that the female gender of teachers is experiencing more work alienation comparatively to its male gender counterparts. Thus, hypothesis $H_{0,16}$, i.e. "There exists no significant difference in alienation of teachers with respect to gender" is not rejected for alienation and its dimensions i.e. social isolation and cultural estrangement and not accepted for alienation dimension viz. work alienation. Figure 3.41 displays comparative analysis of work alienation with respect to gender graphically.

FIGURE 3.41
GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF
WORK ALIENATION WITH RESPECT TO GENDER



EXPERIENCE

The above table 3.17 reveals the calculated F-ratios for the main effect of experience on alienation and its dimensions viz. work alienation, social isolation and cultural estrangement of secondary school teachers as 3.033, 7.459, 1.856, 1.767. Alienation dimensions viz. social isolation and cultural estrangement are found insignificant ($p > .05$). Also, alienation and its dimension i.e. work alienation are found significant ($p < .05$). Thus, results revealed that the teachers having experience i.e. low, average and high significantly differ in their alienation and its dimension i.e. work alienation.

For finding out significant differences in-between various groups' (low, average and high) mean scores of secondary school teachers, the test, Tukey's Post-Hoc HSD has been used and the resultant values have been documented in table 3.18.

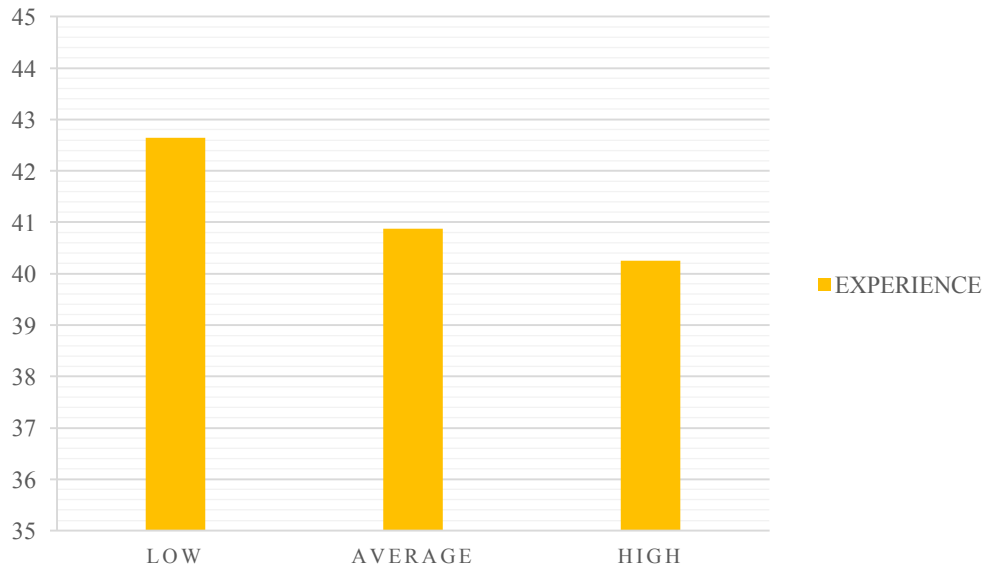
TABLE 3.18
TUKEY'S POST-HOC HSD TEST SUMMARY

ALIENATION				
EXPERIENCE (A)	EXPERIENCE (B)	Mean Difference (A-B)	Std. Error	Sig.
Low	Average	1.775	.897	.118
Low	High	1.393	1.071	.047
Average	High	.618	1.088	.837
WORK ALIENATION				
EXPERIENCE (A)	EXPERIENCE (B)	Mean Difference (A-B)	Std. Error	Sig.
Low	Average	2.012	.626	.004
Low	High	2.495	.748	.003
Average	High	.482	.759	.801

Note: Significance level= .05

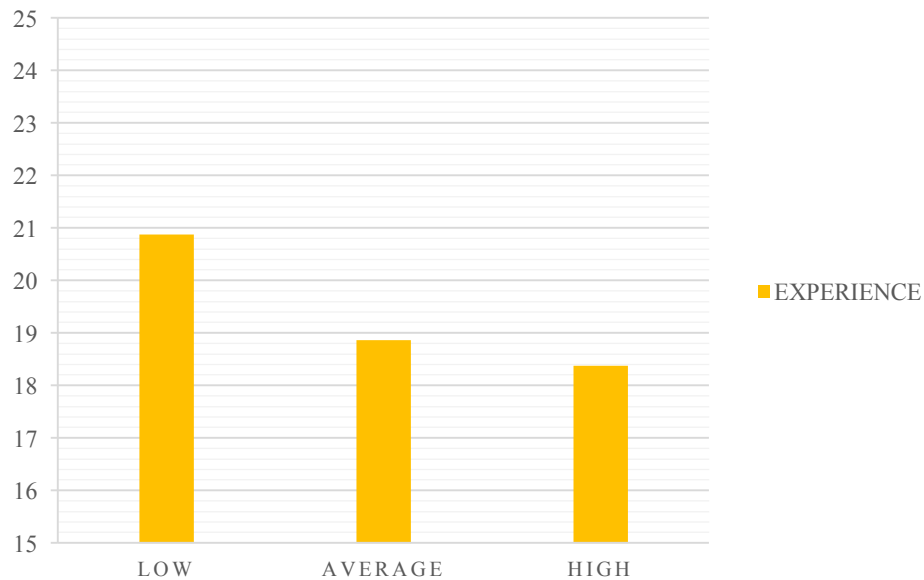
Table 3.18 discloses for alienation, the p-value of the mean difference between teachers of low and average experience is .118 and the p-value of the mean difference between high and average experience teachers is .837 and they are found insignificant ($p > .05$). While the p-value of the mean difference between teachers of low and high experience is .047 and it is found significant ($p < .05$). This has been come to fore by analysis that secondary school teachers of low experience differ significantly in their alienation from teachers of high experience. Whereas, teachers with low experience are differing insignificantly in alienation from teachers of average experience. Also, teachers with high experience aren't differing significantly in alienation from teachers of average experience. Therefore, hypothesis $H_{0,17}$, i.e. "There exists no significant difference in alienation of teachers with respect to experience" is partially accepted and partially rejected. From the table 3.16, it is clear that teachers of high experience scored less on alienation than teachers of low experience meaning thereby teachers of high experience have lower levels of alienation at school. Figure 3.42 reflects the comparative analysis of alienation with respect to experience by graphical representation.

FIGURE 3.42
COMPARATIVE ANALYSIS OF ALIENATION WITH RESPECT TO
EXPERIENCE BY GRAPHICAL REPRESENTATION



The observation of table 3.18 reveals that the p-value of the mean difference between teachers of low and average experience is .004 and teachers of low and high experience is .003 and they are found significant ($p < .05$) for work alienation. While p-value of the mean difference between teachers of average and high experience is .801 and is found insignificant ($p > .05$). From the analysis, it has come to fore that secondary school teachers having average experience do not differ significantly in their work alienation from teachers having high experience. Contrarily, secondary school teachers of average experience differ significantly in their work alienation from teachers of low experience. The average experienced teachers are having higher work alienation comparatively to low experienced teachers. Secondary school teachers of high experience differ significantly in their work alienation from teachers of low experience. The low experienced teachers are having higher work alienation in comparison to high experienced teachers. Hence, the hypothesis $H_{0,17}$, i.e. “There exists no significant difference in alienation of teachers with respect to experience” is partially accepted and partially rejected in alienation dimension viz. work alienation. The graphical representation of comparative analysis of work alienation with respect to experience is presented in figure 3.43.

FIGURE 3.43 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF WORK ALIENATION WITH RESPECT TO EXPERIENCE



TYPE OF SCHOOL x GENDER

A perusal of table 3.17 revealed the ‘F’ value due to interaction in-between Type of school*Gender of teachers in alienation and its dimensions viz. work alienation, social isolation and cultural estrangement is 0.077, 0.583, 3.823, 3.827 respectively and it is found insignificant ($p > .05$). Therefore, the hypothesis $H_{01.18}$, i.e. “There exists no significant interaction effect of type of school and gender on alienation of teachers” is not rejected.

Therefore, the results show that teachers’ perception on alienation and its dimensions viz. work alienation, social isolation and cultural estrangement by interaction of Type of school*Gender for various subgroups isn’t differing significantly.

TYPE OF SCHOOL x EXPERIENCE

By discovering through above table 3.17, it has been come to fore that the ‘F’ value for interaction in-between Type of school*Experience of teachers in social isolation (alienation dimension) is 0.114 and it is found insignificant ($p > .05$). The ‘F’

value due to interaction in-between “type of school and experience” of teachers in alienation and its dimensions work alienation and cultural estrangement is found to be 4.566, 5.087, 6.904 respectively and they are found significant ($p < .05$).

These findings point out that these demographic variables function independently in social isolation. The teachers’ perception on social isolation due to the interaction in-between Type of school*Experience for various subgroups is differing insignificantly. It is also indicating that the main effects, type of school and experience have a joint effect i.e. interaction effect on mean scores of alienation and its dimensions work alienation and cultural estrangement.

To determine the difference (significant) among different subgroups due to the interaction in-between Type of school*Experience of secondary school teachers on alienation and its dimensions viz. work alienation and cultural estrangement, ‘t’ values for the different subgroups have been reported in table 3.19.

TABLE 3.19 ‘t’-VALUE SUMMARY FOR THE SUB-GROUPS WITH RESPECT TO ALIENATION AND ITS DIMENSIONS WORK ALIENATION AND CULTURAL ESTRANGEMENT OF TEACHERS

ALIENATION			
S.No.	Group 1	Group 2	t-value
1	·Private school teachers having low experience	·Private school teachers having average experience	3.572*
2	·Private school teachers having low experience	·Private school teachers having high experience	2.841*
3	·Private school teachers having low experience	·Government school teachers low experience	0.054
4	·Private school teachers having low experience	·Government school teachers average experience	0.396
5	·Private school teachers having low experience	·Government school teachers high experience	0.234
6	·Private school teachers having average experience	·Private school teachers having high experience	0.014

7	·Private school teachers having average experience	·Government school teachers having low experience	3.417*
8	·Private school teachers having average experience	·Government school teachers having average experience	4.148*
9	·Private school teachers having average experience	·Government school teachers having high experience	3.101*
10	·Private school teachers having high experience	·Government school teachers having low experience	2.712*
11	·Private school teachers having high experience	·Government school teachers having average experience	3.316*
12	·Private school teachers having high experience	·Government school teachers having high experience	2.544*
13	·Government school teachers having low experience	·Government school teachers having average experience	0.443
14	·Government school teachers having low experience	·Government school teachers having high experience	0.182
15	·Government school teachers having average experience	·Government school teachers having high experience	0.585
WORK ALIENATION			
S.No.	Group 1	Group 2	t-value
1	·Private school teachers having low experience	·Private school teachers having average experience	4.7*
2	·Private school teachers having low experience	·Private school teachers having high experience	3.4*
3	·Private school teachers having low experience	·Government school teachers having low experience	0.045
4	·Private school teachers having low experience	·Government school teachers having average experience	0.328
5	·Private school teachers having low experience	·Government school teachers having high experience	1.127
6	·Private school teachers having average experience	·Private school teachers having high experience	0.390

7	·Private school teachers having average experience	·Government school teachers having low experience	4.310*
8	·Private school teachers having average experience	·Government school teachers having average experience	4.989*
9	·Private school teachers having average experience	·Government school teachers having high experience	3.374*
10	·Private school teachers having high experience	·Government school teachers having low experience	3.113*
11	·Private school teachers having high experience	·Government school teachers having average experience	3.592*
12	·Private school teachers having high experience	·Government school teachers having high experience	2.362*
13	·Government school teachers having low experience	·Government school teachers having average experience	0.263
14	·Government school teachers having low experience	·Government school teachers having high experience	1.012
15	·Government school teachers having average experience	·Government school teachers having high experience	0.984
CULTURAL ESTRANGEMENT			
S.No.	Group 1	Group 2	t-value
1	·Private school teachers having low experience	·Private school teachers having average experience	3.943*
2	·Private school teachers having low experience	·Private school teachers having high experience	2.658*
3	·Private school teachers having low experience	·Government school teachers low experience	1.710
4	·Private school teachers having low experience	·Government school teachers having average experience	2.012*
5	·Private school teachers having low experience	·Government school teachers having high experience	2.854*
6	·Private school teachers having average experience	·Private school teachers having high experience	0.411
7	·Private school teachers having	·Government school teachers	6.040*

	average experience	having low experience	
8	·Private school teachers having average experience	·Government school teachers having average experience	5.716*
9	·Private school teachers having average experience	·Government school teachers having high experience	6.566*
10	·Private school teachers having high experience	·Government school teachers having low experience	4.235*
11	·Private school teachers having high experience	·Government school teachers having average experience	4.053*
12	·Private school teachers having high experience	·Government school teachers having high experience	4.687*
13	·Government school teachers having low experience	·Government school teachers having average experience	0.515
14	·Government school teachers having low experience	·Government school teachers having high experience	1.637
15	·Government school teachers having average experience	·Government school teachers having high experience	1.034

*Significance level= .05

The table 3.19 reveals for construct alienation that the t value of subgroups private school teachers having low experience and government school teachers having low experience is 0.054; private school teachers having low experience and government school teachers having average experience is 0.396; private school teachers having low experience and government school teachers having high experience is 0.234; private school teachers having average experience and private school teachers having high experience is 0.014; government school teachers having low experience and government school teachers having average experience is 0.443, government school teachers having low experience and government school teachers having high experience is 0.182, government school teachers having average experience and government school teachers having high experience is 0.585. These t values are found insignificant ($p > .05$). By looking at the t-values from 3.19 and mean analysis from above table 3.18 of subgroups, it can be concluded that these subgroups

somewhat equally perceive alienation.

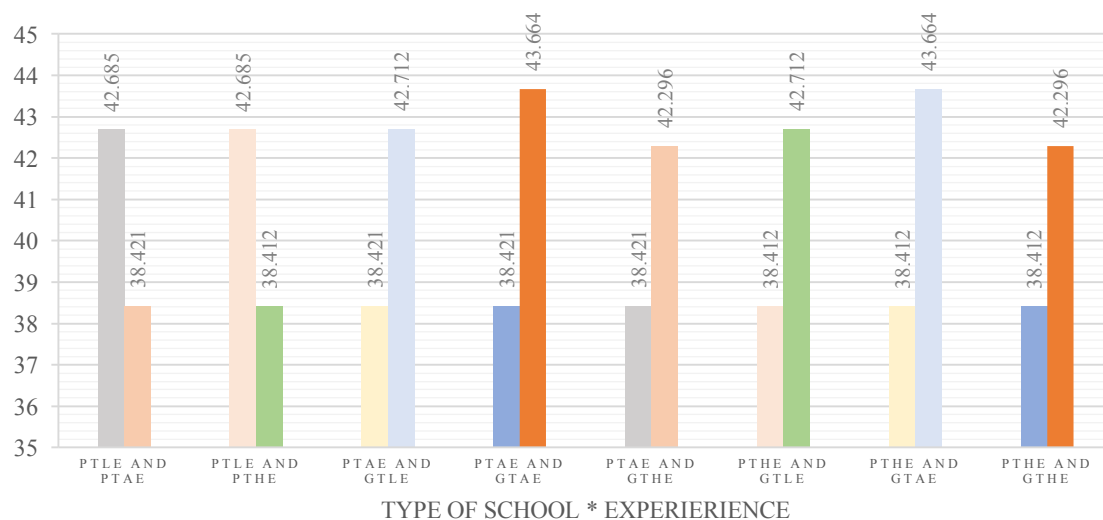
Also, the t-value of subgroups of alienation such as private school teachers having low experience and private school teachers having average experience is 3.572; private school teachers having low experience and private school teachers having high experience is 2.841; private school teachers having average experience and government school teachers having low experience is 3.417; private school teachers having average experience and government school teachers having average experience is 4.148; private school teachers having average experience and government school teachers having high experience is 3.101; private school teachers having high experience and government school teachers having low experience is 2.712; private school teachers having high experience and government school teachers having average experience is 3.316; private school teachers having high experience and government school teachers having high experience is 2.544. These t values are found significant ($p < .05$) meaning thereby these subgroups differ from each other in their alienation.

It is crystal clear from the mean analysis that from above table 3.16, that the private school teachers having low experience perceive more alienation than private school teachers having average experience; private school teachers having low experience perceive more alienation than private school teachers having high experience; government school teachers having low experience perceive more alienation than private school teachers having average experience; government school teachers having average experience perceive more alienation than private school teachers having average experience; government school teachers having high experience perceive more alienation than private school teachers having average experience; government school teachers having low experience perceive more alienation than private school teachers having high experience; government school teachers having average experience perceive more alienation than private school teachers having high experience; government school teachers having high experience perceive more alienation than private school teachers having high experience.

Thus, hypothesis $H_{0.19}$, i.e. “There exists no significant interaction effect of type of school and experience on alienation of teachers” is partially accepted and

partially rejected. Figure 3.44 displays graphical representation of comparative analysis of alienation due to interaction effective of Type of school*Experience.

FIGURE 3.44 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF ALIENATION WITH RESPECT TO TYPE OF SCHOOL* EXPERIENCE



The table 3.19 for work alienation displays ‘t’ value of subgroups private school teachers having low experience and government school teachers having low experience is 0.045; private school teachers having low experience and government school teachers having average experience is 0.328; private school teachers having low experience and government school teachers having high experience is 1.127; private school teachers having average experience and private school teachers having high experience is 0.390; government school teachers having low experience and government school teachers having average experience is 0.263, government school teachers having low experience and government school teachers having high experience is 1.012, government school teachers having average experience and government school teachers having high experience is 0.984.

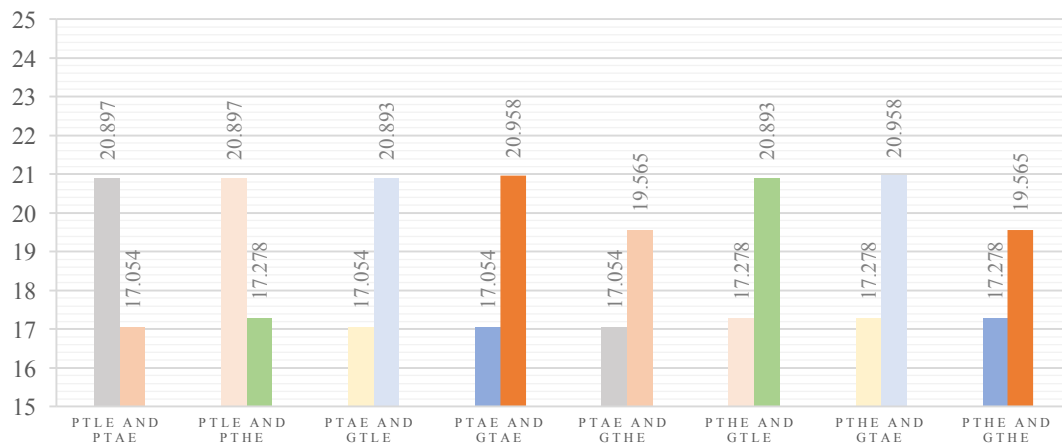
These t values of various sub-groups are found insignificant ($p > .05$). By glaring at ‘t’ values from table 3.19 and mean analysis from above table 3.16 of these subgroups, it may be deduced that these subgroups somewhat perceive their work alienation in similar manner.

It has also been found out that for the work alienation, the t-value of subgroups private school teachers having low experience and private school teachers having average experience is 4.7; private school teachers having low experience and private school teachers having high experience is 3.4; private school teachers having average experience and government school teachers having low experience is 4.310; private school teachers having average experience and government school teachers having average experience is 4.989; private school teachers having average experience and government school teachers having high experience is 3.374; private school teachers having high experience and government school teachers having low experience is 3.113; private school teachers having high experience and government school teachers having average experience is 3.592; private school teachers having high experience and government school teachers having high experience is 2.362. All of them are found significant ($p < .05$). Therefore, these subgroups differ from each other in their work alienation.

The mean analysis from above table 3.16 reveals that the private school teachers having low experience perceive more work alienation than private school teachers having average experience; private school teachers having low experience perceive more work alienation than private school teachers having high experience; government school teachers having low experience perceive more work alienation than private school teachers having average experience; government school teachers having average experience perceive more work alienation than private school teachers having average experience; government school teachers having high experience perceive more work alienation than private school teachers having average experience; government school teachers having low experience perceive more work alienation than private school teachers having high experience; government school teachers having average experience perceive more work alienation than private school teachers having high experience; government school teachers having high experience perceive more work alienation than private school teachers having high experience. Therefore, hypothesis $H_{0.19}$, i.e. “There exists no significant interaction effect of type of school and experience on alienation of teachers” is partially accepted and partially rejected for alienation dimension viz. work alienation. Figure 3.45 presents graphical

representation of comparative analysis of work alienation due to interaction effect of Type of school*Experience.

FIGURE 3.45 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF WORK ALIENATION WITH RESPECT TO TYPE OF SCHOOL* EXPERIENCE



It has been put forth through table 3.19 that for cultural estrangement, the t value of subgroups of private school teachers having low experience and government school teachers having low experience is 1.710; private school teachers having average experience and private school teachers having high experience is 0.411; government school teachers having low experience and government school teachers having average experience is 0.515; government school teachers having low experience and government school teachers having high experience is 1.637; government school teachers having average experience and government school teachers having high experience is 1.034 and they are found insignificant ($p > .05$). By analysing the t-values from table 3.19 and mean analysis from the table 3.16 of these subgroups, it is indicated that these subgroups somewhat equally perceive cultural estrangement. Also, the t-value of subgroups private school teachers having low experience and private school teachers having average experience is 3.943; private school teachers having low experience and private school teachers having high experience is 2.658; private school teachers having low experience and government school teachers having average experience is 2.012; private school teachers having low experience and government school teachers having high experience is 2.854;

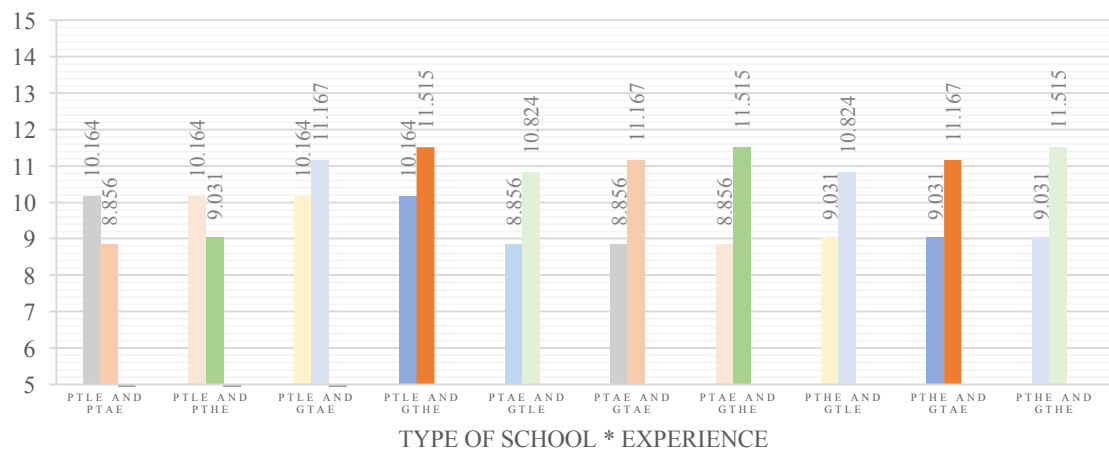
private school teachers having average experience and government school teachers having low experience is 6.040; private school teachers having average experience and government school teachers having average experience is 5.716; private school teachers having average experience and government school teachers having high experience is 6.566; private school teachers having high experience and government school teachers having low experience is 4.235; private school teachers having high experience and government school teachers having average experience is 4.053; private school teachers having high experience and government school teachers having high experience is 4.687 and they all are respectively found significant ($p < .05$). Hence, these subgroups differ from each other in their cultural estrangement.

It is absolutely clear by the mean analysis from table 3.16 that the private school teachers having low experience perceive more cultural estrangement than private school teachers having average experience; private school teachers having low experience perceive more cultural estrangement than private school teachers having high experience; government school teachers having average experience perceive more cultural estrangement than private school teachers with low experience; high experienced government school teachers have higher cultural estrangement comparatively to low experienced private school teachers; low experienced government school teachers perceive higher cultural estrangement in comparison to average experienced private school teachers; government school teachers having average experience perceive more cultural estrangement than private school teachers having average experience; government school teachers having high experience perceive more cultural estrangement than private school teachers having average experience; government school teachers having low experience perceive more cultural estrangement than private school teachers having high experience; government school teachers having average experience perceive more cultural estrangement than private school teachers having high experience; government school teachers having high experience perceive more cultural estrangement than private school teachers having high experience.

Therefore, hypothesis $H_{0.19}$, i.e. “There exists no significant interaction effect of type of school and experience on alienation of teachers” is partially accepted and

partially rejected for cultural estrangement dimension of alienation. Figure 3.46 shows comparative analysis of cultural estrangement due to interaction effect of Type of school*Experience graphically.

FIGURE 3.46 COMPARATIVE ANALYSIS OF CULTURAL ESTRANGEMENT WITH RESPECT TO TYPE OF SCHOOL* EXPERIENCE BY GRAPHICAL REPRESENTATION



GENDER x EXPERIENCE

The table 3.17 unfolds the ‘F’ value due to interaction in-between Gender*Experience of teachers in alienation and its dimensions i.e. work alienation, social isolation and cultural estrangement as 1.779, 2.426, 0.301, 1.550 respectively and they are found insignificant ($p > .05$). Results reveal that gender and experience function independently. Therefore, hypothesis $H_{01.20}$, i.e. “There exists no significant interaction effect of gender and experience on alienation of teachers” isn’t rejected. The results are indicating that teachers’ perception on alienation and its dimensions i.e. work alienation, social isolation and cultural estrangement as due to interaction in-between Gender*Experience for various subgroups isn’t differing significantly.

TYPE OF SCHOOL x GENDER x EXPERIENCE

The ‘F’ values of interaction in-between Type of school*Gender*Experience for alienation and its dimensions i.e. work alienation and social isolation are found to be 1.129, 1.127, 0.593 respectively. These ‘F’ values are respectively found insignificant ($p > .05$). Thus, it points out that teachers on alienation scores and its dimensions scores i.e. work alienation and social isolation due to interaction in-

between Type of school*Gender*Experience for various subgroups differ insignificantly. Thus, the data does facilitate sufficient evidentiary proof to accept the hypothesis $H_{0_{1,21}}$, i.e. “There exists no significant interaction effect of type of school, gender and experience on alienation of teachers” for alienation and its dimensions i.e. work alienation and social isolation. So, the subgroups of teachers due to interaction of Type of school*Gender*Experience isn’t differing significantly in their alienation and its dimensions i.e. work alienation and social isolation.

It has also come fore from table 3.17, that the ‘F’ value due to interaction in-between Type of school*Gender*Experience of teachers in alienation dimension viz. cultural estrangement is 7.203 and it is found significant ($p < .05$). So, secondary school teachers’ alienation dimension viz. cultural estrangement due to interaction of Type of school*Gender*Experience for various subgroups differ significantly.

Hence, the data proves sufficiently the evidence for rejecting the hypothesis $H_{0_{1,21}}$, i.e. “There exists no significant interaction effect of type of school, gender and experience on alienation of teachers” in alienation dimension viz. cultural estrangement. To analyse the significant differences further in-between different subgroups, ‘t’ values for the same have been calculated for cultural estrangement and are documented in the table 3.20.

TABLE 3.20 ‘t’-VALUE SUMMARY FOR THE SUBGROUPS WITH RESPECT TO “CULTURAL ESTRANGEMENT” OF TEACHERS

S.No.	Group 1	Group 2	‘t’ value
1	Private school female teacher having low experience	Private school female teacher having average experience	3.734*
2	Private school female teacher having low experience	Private school female teacher having high experience	2.204*
3	Private school female teacher having low experience	Private school male teacher having low experience	0.331
4	Private school female teacher having low experience	Private school male teacher having average experience	1.362
5	Private school female teacher	Private school male teacher having	1.205

	having low experience	high experience	
6	Private school female teacher having low experience	Government school female teacher having low experience	0.887
7	Private school female teacher having low experience	Government school female teacher having average experience	3.450*
8	Private school female teacher having low experience	Government school female teacher having high experience	1.754
9	Private school female teacher having low experience	Government school male teacher having low experience	1.954
10	Private school female teacher having low experience	Government school male teacher having average experience	0.146
11	Private school female teacher having low experience	Government school male teacher having high experience	2.446*
12	Private school female teacher having average experience	Private school female teacher having high experience	1.134
13	Private school female teacher having average experience	Private school male teacher having low experience	4.268*
14	Private school female teacher having average experience	Private school male teacher having average experience	3.338*
15	Private school female teacher having average experience	Private school male teacher having high experience	1.751
16	Private school female teacher having average experience	Government school female teacher having low experience	5.134*
17	Private school female teacher having average experience	Government school female teacher having average experience	7.088*
18	Private school female teacher having average experience	Government school female teacher having high experience	5.086*
19	Private school female teacher having average experience	Government school male teacher having low experience	6.005*
20	Private school female teacher having average experience	Government school male teacher having average experience	3.933*

21	Private school female teacher having average experience	Government school male teacher having high experience	5.960*
22	Private school female teacher having high experience	Private school male teacher having low experience	2.621*
23	Private school female teacher having high experience	Private school male teacher having average experience	1.634
24	Private school female teacher having high experience	Private school male teacher having high experience	0.698
25	Private school female teacher having high experience	Government school female teacher having low experience	3.283*
26	Private school female teacher having high experience	Government school female teacher having average experience	5.140*
27	Private school female teacher having high experience	Government school female teacher having high experience	3.575*
28	Private school female teacher having high experience	Government school male teacher having low experience	4.148*
29	Private school female teacher having high experience	Government school male teacher having average experience	2.349*
30	Private school female teacher having high experience	Government school male teacher having high experience	4.337*
31	Private school male teacher having low experience	Private school male teacher having average experience	1.834
32	Private school male teacher having low experience	Private school male teacher having high experience	1.522
33	Private school male teacher having low experience	Government school female teacher having low experience	0.552
34	Private school male teacher having low experience	Government school female teacher having average experience	3.282*
35	Private school male teacher having low experience	Government school female teacher having high experience	1.567
36	Private school male teacher having	Government school male teacher	1.703

	low experience	having low experience	
37	Private school male teacher having low experience	Government school male teacher having average experience	0.784
38	Private school male teacher having low experience	Government school male teacher having high experience	2.292*
39	Private school male teacher having average experience	Private school male teacher having high experience	0.384
40	Private school male teacher having average experience	Government school female teacher having low experience	2.592*
41	Private school male teacher having average experience	Government school female teacher having average experience	5.364*
42	Private school male teacher having average experience	Government school female teacher having high experience	3.430*
43	Private school male teacher having average experience	Government school male teacher having low experience	3.869*
44	Private school male teacher having average experience	Government school male teacher having average experience	1.539
45	Private school male teacher having average experience	Government school male teacher having high experience	4.420*
46	Private school male teacher having high experience	Government school female teacher having low experience	2.053*
47	Private school male teacher having high experience	Government school female teacher having average experience	3.825*
48	Private school male teacher having high experience	Government school female teacher having high experience	2.423*
49	Private school male teacher having high experience	Government school male teacher having low experience	2.812*
50	Private school male teacher having high experience	Government school male teacher having average experience	1.339
51	Private school male teacher having high experience	Government school male teacher having high experience	3.022*
52	Government school female teacher	Government school female teacher	3.044*

	having low experience	having average experience	
53	Government school female teacher having low experience	Government school female teacher having high experience	1.254
54	Government school female teacher having low experience	Government school male teacher having low experience	1.292
55	Government school female teacher having low experience	Government school male teacher having average experience	0.746
56	Government school female teacher having low experience	Government school male teacher having high experience	2.035*
57	Government school female teacher having average experience	Government school female teacher having high experience	1.159
58	Government school female teacher having average experience	Government school male teacher having low experience	1.691
59	Government school female teacher having average experience	Government school male teacher having average experience	3.404*
60	Government school female teacher having average experience	Government school male teacher having high experience	0.555
61	Government school female teacher having high experience	Government school male teacher having low experience	0.207
62	Government school female teacher having high experience	Government school male teacher having average experience	1.667
63	Government school female teacher having high experience	Government school male teacher having high experience	0.561
64	Government school male teacher having low experience	Government school male teacher having average experience	1.846
65	Government school male teacher having low experience	Government school male teacher having high experience	0.907
66	Government school male teacher having average experience	Government school male teacher having high experience	2.364*

*Significance level= .05

The Table 3.20 discloses the ‘t’ values for cultural estrangement of various subgroups such as private female teacher having low experience and private male teacher having average experience is 1.362; private female teacher having low

experience and private male teacher having high experience is 1.205; private female teacher having low experience and government female teacher having low experience is 0.887; private female teacher having low experience and government female teacher having high experience is 1.754; private female teacher having low experience and government male teacher having low experience is 1.954; private female teacher having low experience and government male teacher having average experience is 0.146; private female teacher having average experience and private female teacher having high experience is 1.134, private female teacher having average experience and private male teacher having high experience is 1.751, private female teacher having high experience and private male teacher having average experience is 1.634; private female teacher having high experience and private male teacher having high experience is 0.698; private male teacher having low experience and private male teacher having average experience is 1.834; private male teacher having low experience and private male teacher having high experience is 1.522; private male teacher having low experience and government female teacher having low experience is 0.552; private male teacher having low experience and government female teacher having high experience is 1.567; private male teacher having low experience and government male teacher having low experience is 1.703; private male teacher having low experience and government male teacher having average experience is 0.784; private male teacher having average experience and private male teacher having high experience is 0.384; private male teacher having average experience and government male teacher having average experience is 1.539; private male teacher having high experience and government male teacher having average experience is 1.339. All these resultant t values are respectively found insignificant ($p > .05$). The 't' values from table 3.20 and mean analysis from table 3.16 for various subgroups conclude that these subgroups somewhat equally perceive cultural estrangement.

Similarly, the t value for cultural estrangement with regards to various subgroups like government female teacher having low experience and government female teacher having high experience is 1.254; government female teacher having low experience and government male teacher having low experience is 1.292; government female teacher having low experience and government male teacher

having average experience is 0.746; government female teacher having average experience and government female teacher having high experience is 1.159; government female teacher having average experience and government male teacher having low experience is 1.691; government female teacher having average experience and government male teacher having high experience is 0.555; government female teacher having high experience and government male teacher having low experience is 0.207; government female teacher having high experience and government male teacher having average experience is 1.667; government female teacher having high experience and government male teacher having high experience is 0.561; government male teacher having low experience and government male teacher having average experience is 1.846; government male teacher having low experience and government male teacher having high experience is 0.907. These t values for various subgroups of cultural estrangement are found insignificant ($p > .05$). By observing the t-values from table 3.20 and mean analysis from table 3.16 for various subgroups, it can be summarized that these subgroups somewhat equally perceive cultural estrangement in a similar manner.

Whereas, it is clear by the mean analysis from table 3.16 and observing t values for various subgroups of cultural estrangement from table 3.20 that the private female teacher having low experience perceive more cultural estrangement than private female teacher having average experience where t value is 3.734; private female teacher having low experience perceive more cultural estrangement than private female teacher having high experience where t value is 2.204; government female teacher having average experience perceive more cultural estrangement than private female teacher having low experience where t value is 3.450; government male teacher having high experience perceive more cultural estrangement than private female teacher having low experience where t value is 2.446; private male teacher having low experience perceive more cultural estrangement than private female teacher having average experience where t value is 4.268; private male teacher having average experience perceive more cultural estrangement than private female teacher having average experience where t value is 3.338; government female teacher having low experience perceive more cultural estrangement than private female teacher having average experience where t value is 5.134; government female teacher having

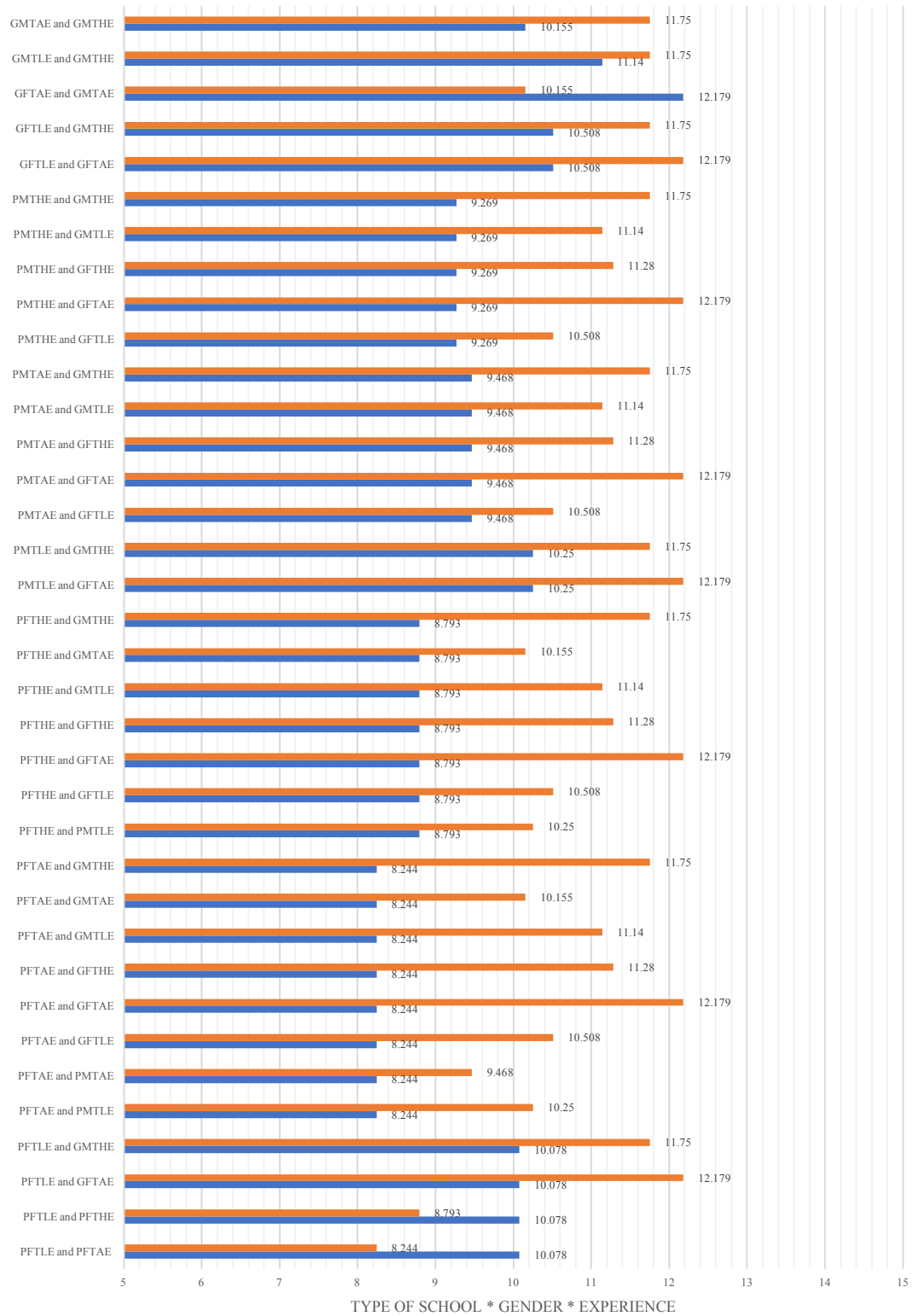
average experience perceive more cultural estrangement than private female teacher having average experience where t value is 7.088; government female teacher having high experience perceive more cultural estrangement than private female teacher having average experience where t value is 5.086; government male teacher having low experience perceive more cultural estrangement than private female teacher having average experience where t value is 6.005.

Also, it is evident by the mean analysis from table 3.16 and by analysing t values for different subgroups of cultural estrangement from table 3.20 that the government male teacher having average experience perceive more cultural estrangement than private female teacher having average experience where t value is 3.933; government male teacher having high experience perceive more cultural estrangement than private female teacher having average experience where t value is 5.960; private male teacher having low experience perceive more cultural estrangement than private female teacher having high experience where t value is 2.621; government female teacher having low experience perceive more cultural estrangement than private female teacher having high experience where t value is 3.283; government female teacher having average experience perceive more cultural estrangement than private female teacher having high experience where t value is 5.140; government female teacher having high experience perceive more cultural estrangement than private female teacher having high experience where t value is 3.575; government male teacher having low experience perceive more cultural estrangement than private female teacher having high experience where t value is 4.148; government male teacher having average experience perceive more cultural estrangement than private female teacher having high experience where t value is 2.349; government male teacher having high experience perceive more cultural estrangement than private female teacher having high experience where t value is 4.337; government female teacher having average experience perceive more cultural estrangement than private male teacher having low experience where t value is 3.282; government male teacher having high experience perceive more cultural estrangement than private male teacher having low experience where t value is 2.292; government female teacher having low experience perceive more cultural estrangement than private male teacher having average experience where t value is 2.592; government

female teacher having average experience perceive more cultural estrangement than private male teacher having average experience where t value is 5.364; government female teacher having high experience perceive more cultural estrangement than private male teacher having average experience where t value is 3.430.

It is also found via mean analysis through table 3.16 and observing t values for various subgroups of cultural estrangement from table 3.20 that government male teacher having low experience perceive more cultural estrangement than private male teacher having average experience where t value is 3.869; government male teacher having high experience perceive more cultural estrangement than private male teacher having average experience where t value is 4.420; government female teacher having low experience perceive more cultural estrangement than private male teacher having high experience where t value is 2.053; government female teacher having average experience perceive more cultural estrangement than private male teacher having high experience where t value is 3.825; government female teacher having high experience perceive more cultural estrangement than private male teacher having high experience where t value is 2.423; government male teacher having low experience perceive more cultural estrangement than private male teacher having high experience where t value is 2.812; government male teacher having high experience perceive more cultural estrangement than private male teacher having high experience where t value is 3.022; government female teacher having average experience perceive more cultural estrangement than government female teacher having low experience where t value is 3.044; government male teacher having high experience perceive more cultural estrangement than government female teacher having low experience where t value is 2.035; government female teacher having average experience perceive more cultural estrangement than government male teacher having average experience where t value is 3.404; government male teacher having high experience perceive more cultural estrangement than government male teacher having average experience where t value is 2.364. Therefore, after analysing the significant differences in-between different subgroups via 't' values for cultural estrangement dimension of alienation has lead to partially accept and partially reject hypothesis $H_{0.21}$, i.e. "There exists no significant interaction effect of type of school, gender and experience on alienation of teachers" for the same.

FIGURE 3.47 COMPARATIVE ANALYSIS OF CULTURAL ESTRANGEMENT WITH RESPECT TO TYPE OF SCHOOL* GENDER* EXPERIENCE BY GRAPHICAL REPRESENTATION



DISCUSSION

The findings point out that the government secondary school teachers have more alienation and its dimension work alienation than the private counterparts. The government teachers comparatively to private counterparts feel more disconnected in an expected relationship or desired relationship. They probably have more distrust toward people at work, society and others. The private secondary school teachers have more social isolation and cultural estrangement than government secondary school teachers. This is due to the fact that maybe the private teachers comparatively to government counterparts have feelings of being isolated socially and estranged culturally resulting into creating a situation in which they start to have feelings of being disconnected from themselves in the social environment and at personal level at both unconscious level as well as conscious level. Pal (2003) disclosed significant differences in-between public sector managers and the private sector managers in their alienation. The managers working in the public-sector organizations had more alienation at work than the managers working in the private sector organizations. Whereas, Kumari (2006) found no significant differences in the school teachers on the basis of “type of school”. Also, Kumari (2006) revealed differences (insignificant) in-between male and the female teachers with regards to “Type of school”. The male teachers of private schools and male teachers of government schools were higher on their alienation.

Secondary school female teachers and male teachers equally perceive alienation and its dimensions i.e. social isolation and cultural estrangement. Also, female teachers experience higher work alienation comparatively to male their counterparts. Interaction in-between, “type of school and gender; gender and experience” of teachers in alienation and its dimensions viz. work alienation, social isolation and cultural estrangement for various subgroups do not differ significantly. For alienation and its dimensions viz. work alienation and cultural estrangement, results of the interaction effect in-between Type of school*Experience was significant. So, results are indicating that the main effects of these demographic variables have a joint effect on mean scores of alienation and its dimensions work alienation and cultural estrangement. The teachers’ perception on social isolation due

to interaction of Type of school*Experience for various subgroups are differing insignificantly.

Alienation, isolation and estrangement in teachers is supposedly endangering their feelings' spontaneity. It is characterized in terms on the basis of their energies; feelings; beliefs; wishes and also the individual's past with respect to gender, type of school and experience. Secondary school teachers on the scores of alienation and its dimensions work alienation and social isolation due to interaction in-between Type of school*Gender*Experience for various subgroups aren't differing significantly. Also, secondary school teachers' alienation dimension viz. cultural estrangement due to interaction in-between "Type of school*Gender*Experience for various subgroups is differing significantly. Their alienation is the separation among whole and parts of significant aspects of personality and experience. They have implanted feelings related to isolation and estrangement because of problems related to society, institution/work or inter-personal problems. Rotter (1966) and Franklyne (1975) claimed that there exists an insignificant difference on the basis of "gender" in feelings of alienation. Williamson and Cullingford (1998), Klomegah (2006), Ataş and Ayık (2013), Çağlar (2013) and Erbas (2014) found an insignificant difference in isolation with respect to gender. Contrarily, Joshi (1988) revealed interaction of groups and gender was found to be not insignificant for social isolation. Berneke (1971), Jackson (1974), Naik (1978), Ju (1983), Bhaskaran (2011) and Eryılmaz and Burgaz (2011) revealed that there exists no insignificant difference between females and males in their alienation.

Jain (2012) found insignificant differences in employees' work alienation with regards to their "gender". But, Calicchia and Barresi (1975) found an insignificant difference between normal group females and males in alienation and no gender differences existed in alienation as a whole whereas, in the social isolation, no insignificant differences existed between males and females.

Also, in line with the present study, Joshi (1988) revealed that females and males do not differ from each other in their alienation. Kumari (2006) found that male school teachers and female school teachers are insignificantly different from each other in their alienation. Also, like the findings of the present study,

Kumari (2006) found an insignificant difference between school teachers in their alienation with respect to interaction in-between “type of school and gender”.

Main effect of experience on alienation dimensions viz. social isolation and cultural estrangement of secondary school teachers is found to be not significant. Teachers having experience i.e. low, average and high significantly differ in their alienation and its dimension work alienation. In young people due to lack of experience and ignorance, they are gullible and hence are alienated at work (Hurlock, 1974).

The condition of alienation happens especially in less experienced teachers comparatively to more experienced teachers since they are more likely to develop an ideal image of themselves which is very different from the actual reality due to which there is a profound gap between their ideal image perception and their own real self and they cling to the belief of the ideal image. For being under these circumstances, they lose the sight of one’s actual real self.

Seckler (1978) and Singh (1993) revealed a significant difference in the working respondents in their work alienation with respect to their experience. Kamaraj (1998) and Bhaskaran (2011) revealed that the years of service has a significant association with their alienation.

3.3.1.4 SUMMARY OF 2X2X3 ANALYSIS OF VARIANCE (ANOVA) OF CHANGE PRONENESS IN TEACHERS WITH RESPECT TO “TYPE OF SCHOOL, GENDER AND EXPERIENCE”

Levene’s test viz. homogeneity of variance test has been carried for determining homoscedasticity of change proneness. Levene static of change proneness is 2.53 and its p-value is 0.112. Therefore, it is evident that the p-value is above the threshold value of 0.05 level of significance. So, there is homogeneity of variance for change proneness. Henceforth, the data can be further analysed using analysis of variance for change proneness.

To study the change proneness of private and government school male and female secondary school teachers having low, average and high experience, descriptive statistics was calculated for the total score of change proneness and is displayed in the table 3.21.

TABLE 3.21
CHANGE PRONENESS DESCRIPTIVE STATISTICS WITH
RESPECT TO “TYPE OF SCHOOL, GENDER AND EXPERIENCE”

Type of School	Gender	Experience	Mean & S.D.	Change Proneness
Private	Female	Low	M.=	128.90
		N= 51	S.D.=	7.325
		Average	M.=	133.51
		N= 45	S.D.=	7.247
		High	M.=	132.93
		N= 29	S.D.=	7.210
		Total	M.=	131.50
	N= 125	S.D.=	7.994	
	Male	Low	M.=	130.58
		N= 52	S.D.=	9.106
		Average	M.=	136.72
		N= 47	S.D.=	7.385
		High	M.=	134.62
		N= 26	S.D.=	7.920
		Total	M.=	133.73
	N= 125	S.D.=	8.343	
	Total	Low	M.=	129.75
		N= 103	S.D.=	8.274
		Average	M.=	135.15
		N= 92	S.D.=	7.487
		High	M.=	133.73
N= 55		S.D.=	7.054	
Total		M.=	132.61	
N= 250	S.D.=	7.763		
	Female	Low	M.=	128.61
		N= 61	S.D.=	10.35
		Average	M.=	125.33
		N= 39	S.D.=	8.317
		High	M.=	127.64
		N= 25	S.D.=	9.772
		Total	M.=	127.39
	N= 125	S.D.=	9.675	
	Male	Low	M.=	127.37
		N= 43	S.D.=	10.10

Government		Average	M.=	131.14
		N= 58	S.D.=	8.457
		High	M.=	130.71
		N= 24	S.D.=	8.888
		Total	M.=	129.76
		N= 125	S.D.=	9.227
	Total	Low	M.=	128.10
			N= 104	S.D.=
		Average	M.=	128.80
			N= 97	S.D.=
		High	M.=	129.14
			N= 49	S.D.=
		Total	M.=	128.58
			N= 250	S.D.=
Total	Female	Low	M.=	128.74
			N= 112	S.D.=
		Average	M.=	129.71
			N= 84	S.D.=
		High	M.=	130.48
			N= 54	S.D.=
		Total	M.=	129.44
			N= 250	S.D.=
	Male	Low	M.=	129.13
			N= 95	S.D.=
		Average	M.=	133.64
			N= 105	S.D.=
		High	M.=	132.74
			N= 50	S.D.=
		Total	M.=	131.734
			N= 250	S.D.=
	Total	Low	M.=	128.92
			N= 207	S.D.=
		Average	M.=	131.89
			N= 189	S.D.=
		High	M.=	131.57
			N= 104	S.D.=
		Total	M.=	130.59
			N= 500	S.D.=
	Levene Static=			2.530*

Note: M.= Mean, S.D.= Standard Deviation, N= No. of Respondents, * p-value>0.05 (Threshold)

For analysing change proneness of private and government school male and female secondary school teachers having low, average and high experience, self-perceived scores obtained have been subjected to analysis of variance and detailed resultant values are documented in table 3.22.

TABLE 3.22
2X2X3 ANOVA SUMMARY OF CHANGE PRONENESS WITH
RESPECT TO “TYPE OF SCHOOL, GENDER AND EXPERIENCE”

Change Proneness							
Source	TOS	Gender	Exp.	TOS * Gender	TOS * Exp.	Gender * Exp.	TOS * Gender * Exp.
SS	2191.73	632.046	899.382	3.563	642.236	446.408	197.915
Df	1	1	2	1	2	2	2
MS	2191.73	632.046	449.691	3.563	321.118	223.204	98.958
F	30.839	8.893	6.327	0.050	4.518	3.141	1.392
Sig.	0.000	0.003	0.002	0.823	0.011	0.044	0.249
Error= 34682.752, Df= 488; Total= 8566955, Df= 500							

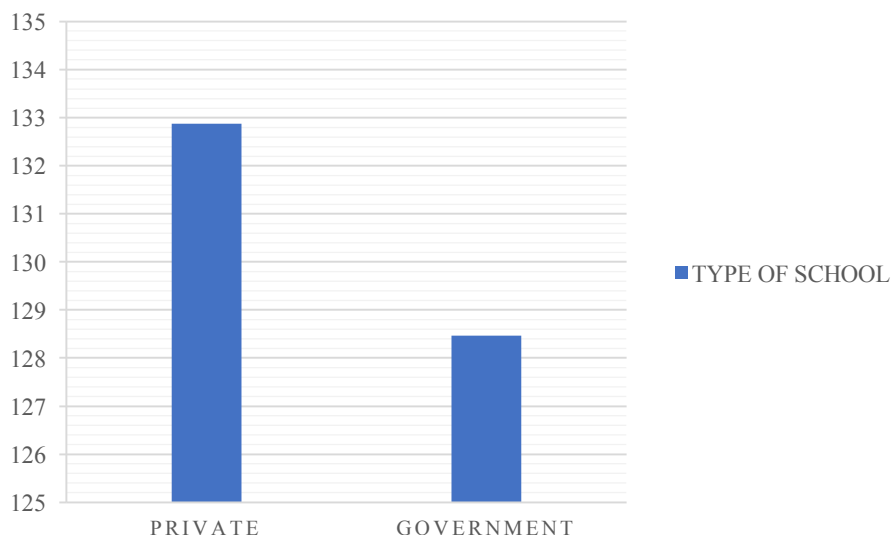
Note: TOS= Type of School, Exp.= Experience

TYPE OF SCHOOL

The ‘F’ value for differences in change proneness of secondary school teachers from private and government type of school is 30.839 (table 3.22) and it is found to be significant ($p > .05$). It is pointing out that the two groups (type of school) of teachers are differing significantly ($p < .05$) on their scores change proneness. Therefore, hypothesis $H_{01,22}$, i.e. “There exists no significant difference in change proneness of teachers with respect to type of school” isn’t accepted. This insinuates that secondary school teachers with regards to “type of school” differ significantly in their change proneness.

After reviewing the corresponding mean scores in the descriptive statistics from table 3.21, it can be reported that private teachers have better change proneness comparatively to their government counterpart teachers. Henceforth, data provides sufficient evidence that private type of schools’ secondary teachers as compared to government type of schools’ secondary teachers have more willingness and proneness for change and innovation in teaching. Figure 3.48 depicts the comparative analysis of change proneness with respect to type of school graphically.

**FIGURE 3.48 COMPARATIVE ANALYSIS OF CHANGE PRONENESS
WITH RESPECT TO TYPE OF SCHOOL BY GRAPHICAL
REPRESENTATION**

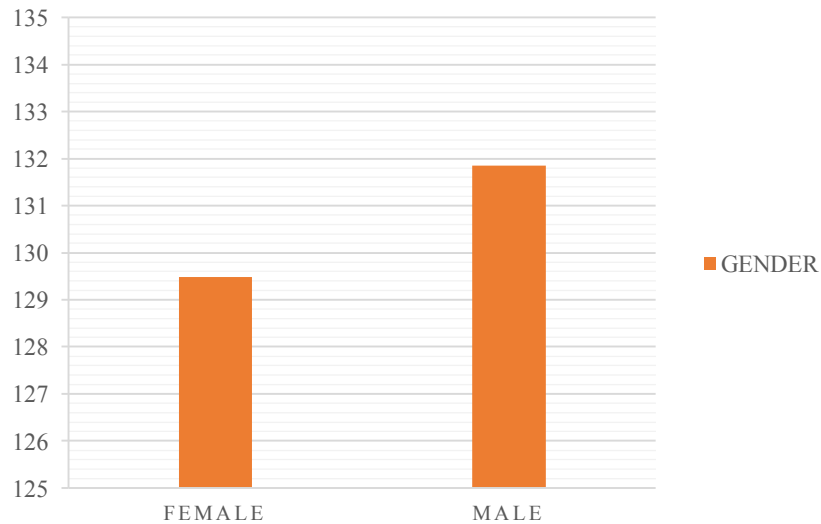


GENDER

It is absolutely clear by perusal of table 3.22 that on gender basis, the ‘F’ value for differences in change proneness of secondary school teachers was found to be 8.893 and it is found to be significant ($p < .05$). The indicative by the resultant values that the teachers with regards to “Gender” aren’t differing insignificantly in their change proneness. So, the data points out to reject the hypothesis $H_{0,1,2,3}$, i.e. “There exists no significant difference in change proneness of teachers with respect to gender”. Therefore, the secondary school female and male teachers differ significantly in change proneness. It is obvious from corresponding mean scores in the descriptive statistics table 3.21 that the male teachers have higher change proneness in comparison to their female counterparts.

So, data provide sufficient evidence that male teachers in comparison to their female counterparts are more flexible, open and prone to change in their teaching process. The graphical representation of comparative analysis of change proneness with respect to gender is displayed in figure 3.49.

FIGURE 3.49 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF CHANGE PRONENESS WITH RESPECT TO GENDER



EXPERIENCE

Perusal of table 3.22 revealed that the F-ratio for the main effect of experience on change proneness of secondary school teachers is 6.327 and it is found significant ($p < .05$). Findings deduct that teachers having experience i.e. low, average and high significantly differ on their scores of change proneness. The data presents enough evidence to apply Tukey's Post-Hoc HSD test to find out the significant differences within the subgroups of experience in their change proneness. These results have been documented in table 3.23.

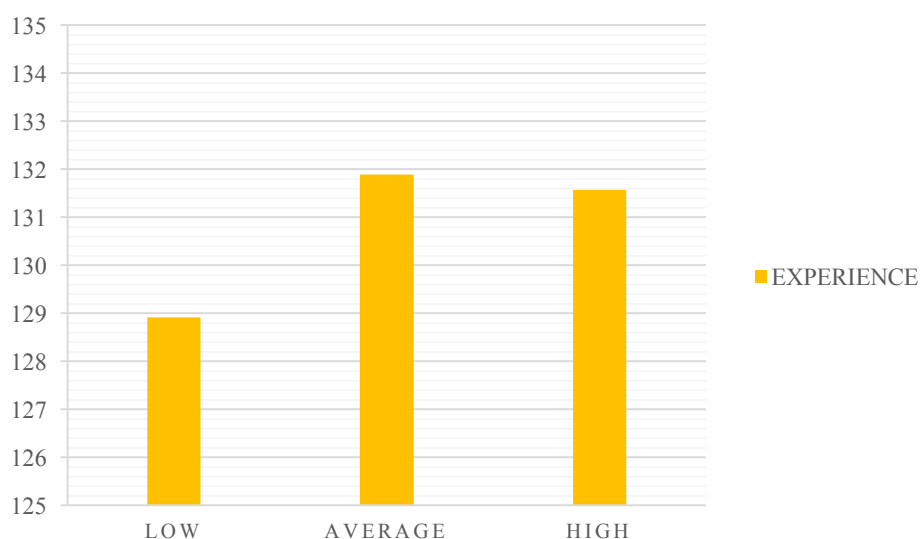
**TABLE 3.23
TUKEY'S POST-HOC HSD TEST SUMMARY OF CHANGE PRONENESS
OF TEACHERS WITH RESPECT TO EXPERIENCE**

CHANGE PRONENESS				
EXPERIENCE (A)	EXPERIENCE (B)	Mean Difference (A-B)	Std. Error	Sig.
Average	Low	2.976	.886	.002
Average	High	.327	1.075	.950
High	Low	2.649	1.059	.034

Note: Significance level= .05

The table 3.23 unfolds p-value for the mean difference between teachers of average and low experience is .002 and the p-value of the mean difference between teachers of high and low experience is .034 for change proneness. These are values are respectively found significant ($p < .05$). In contrast, p-value for mean difference between teachers of average and high experience is .950 for change proneness and it is found to be insignificant ($p > .05$). From the analysis, it has come to fore that secondary school teachers having average experience aren't differing significantly in change proneness from teachers having high experience. Whereas, secondary school teachers of average experience differ significantly in their change proneness from teachers of low experience. By observing the descriptive statistics table 3.21, it has been revealed that average experienced teachers are having higher change proneness comparatively to low experienced teachers. Secondary school teachers of high experience differ significantly in their change proneness from teachers of low experience. Therefore, by glancing the descriptive table 3.21, it is crystal clear that the high experienced teachers are having higher change proneness in comparison to low experienced teachers. Therefore, the hypothesis $H_{01,24}$, i.e. "There exists no significant difference in change proneness of teachers with respect to experience" is partially accepted and partially rejected. The figure 3.50 presents the graphical representation of comparative analysis of change proneness with respect to experience.

FIGURE 3.50 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF CHANGE PRONENESS WITH RESPECT TO EXPERIENCE



TYPE OF SCHOOL x GENDER

The table 3.22 revealed that the 'F' value due to interaction in-between Type of school*Gender of teachers in change proneness is 0.050 and is found insignificant ($p > .05$). Therefore, the hypothesis $H_{01.25}$, i.e. "There exists no significant interaction effect of type of school and gender on change proneness of teachers" is accepted. The results portray that the teachers' self-perception on change proneness because of interaction in-between Type of school*Gender for various subgroups is not differing significantly.

TYPE OF SCHOOL x EXPERIENCE

Table 3.22 discloses 'F' value due to interaction in-between Type of school*Experience of teachers in change proneness has been found out to be 4.518 and it is found not insignificant at 0.05 level of significance. The findings indicate the main effects, type of school and experience have a joint interaction effect on change proneness of teachers. To analyse the significant difference between different subgroups due to interaction among type of school (private and government) and experience (low, average and high), of secondary school teachers on change proneness, the 't'-values for various subgroups have been reported in table 3.24.

TABLE 3.24

**'t'-VALUE SUMMARY FOR SUBGROUPS OF CHANGE PRONENESS OF
TEACHERS w.r.t. TYPE OF SCHOOL x EXPERIENCE**

S.No.	Group 1	Group 2	't'-value
1	Private school teachers having low experience	Private school teachers having average experience	5.033*
2	Private school teachers having low experience	Private school teachers having high experience	3.027*
3	Private school teachers having low experience	Government school teachers having low experience	1.277
4	Private school teachers having low experience	Government school teachers having average experience	0.780
5	Private school teachers having low experience	Government school teachers having high experience	0.403

6	Private school teachers having average experience	Private school teachers having high experience	1.247
7	Private school teachers having average experience	Government school teachers having low experience	5.686*
8	Private school teachers having average experience	Government school teachers having average experience	5.606*
9	Private school teachers having average experience	Government school teachers having high experience	4.464*
10	Private school teachers having high experience	Government school teachers having low experience	3.650*
11	Private school teachers having high experience	Government school teachers having average experience	3.541*
12	Private school teachers having high experience	Government school teachers high experience	2.835*
13	Government school teachers having low experience	Government school teachers having average experience	0.524
14	Government school teachers having low experience	Government school teachers having high experience	0.607
15	Government school having teachers average experience	Government school teachers having high experience	0.214

*Significance level= .05

For change proneness, it has been discovered from table 3.24 that ‘t’-value of subgroups viz. private school teachers having low experience and government school teachers having low experience is 1.277; private school teachers having low experience and government school teachers average experience is 0.780; private school teachers having low experience and government school teachers having high experience is 0.403; private school teachers having average experience and private school teachers having high experience is 1.247; government school teachers having low experience and government school teachers having average experience is 0.524; government school teachers having low experience and government school teachers having high experience is 0.607; government school teachers having average

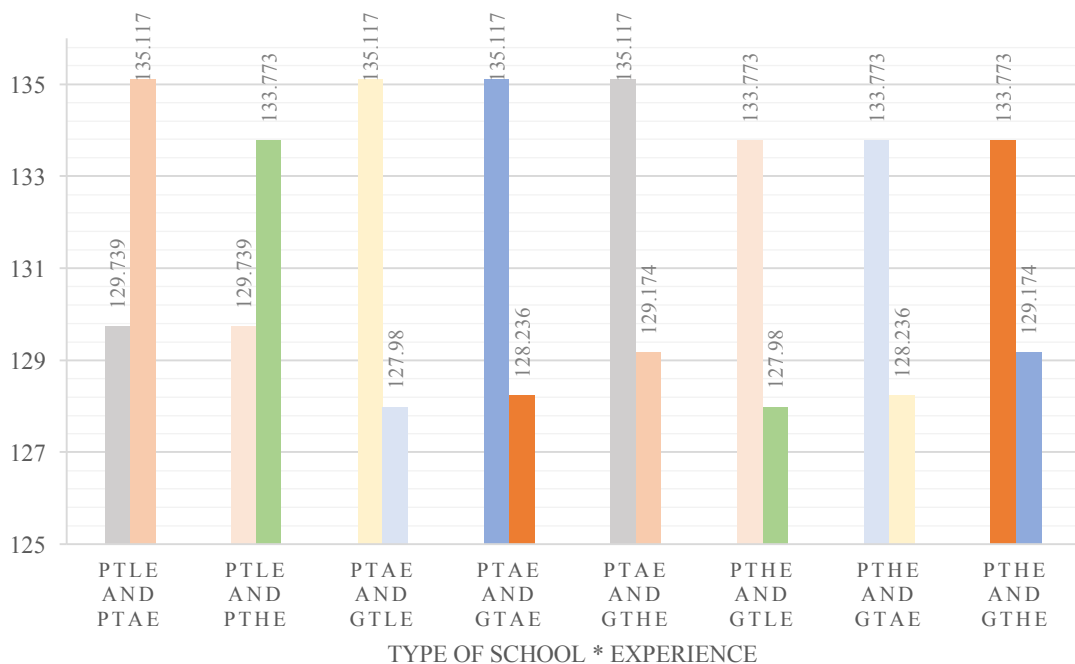
experience and government school teachers having high experience is 0.214. These t-values are respectively found insignificant ($p > .05$). The 't'-values from table 3.24 and descriptive statistics from table 3.21 of subgroups leads to conclude that the subgroups somewhat equally perceive change proneness. Also, the t-value of subgroups private school teachers having low experience and private school teachers having average experience is 5.033; private school teachers having low experience and private school teachers having high experience is 3.027; private school teachers having average experience and government school teachers having low experience is 5.686; private school teachers having average experience and government school teachers having average experience is 5.606; private school teachers having average experience and government school teachers having high experience is 4.464; private school teachers having high experience and government school teachers having low experience is 3.650; private school teachers having high experience and government school teachers having average experience is 3.541; private school teachers having high experience and government school teachers having high experience is 2.835. These resultant 't'-values are not found insignificant ($p < .05$) meaning thereby, these subgroups differ from each other in their change proneness.

It is evidently clear from the descriptive statistics table 3.21 that the private school teachers having average experience have more change proneness than low experienced private school teachers; high experienced private school teachers have higher change proneness as compared to low experienced private school teachers; average experienced private school teachers are having higher change proneness comparatively to average experienced private school teachers; average experienced private school teachers are having higher change proneness as compared to low experienced government school teachers; average experienced private school teachers are having higher change proneness in comparison to high experienced government school teachers; high experienced private school teachers are having higher change proneness comparatively to low experienced government school teachers; high experienced private school teachers are having higher change proneness as compared to average experienced government school teachers; high experienced private school

teachers as compared to high experienced government school are having higher change proneness.

Thus, in light of the findings it is reported that hypothesis H₀_{1,26}, i.e. “There exists no significant interaction effect of type of school and experience on change proneness of teachers” is partially accepted and partially rejected. Figure 3.51 displays graphical representation of comparative analysis of change proneness due to interaction in-between Type of school*Experience.

FIGURE 3.51 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF CHANGE PRONENESS WITH RESPECT TO TYPE OF SCHOOL* EXPERIENCE



GENDER x EXPERIENCE

It has been found by observing table 3.22 that the ‘F’ value due to interaction in-between Gender*Experience of teachers in change proneness is 3.141 and it is found not insignificant (p<.05). Resultant findings point out that gender and experience have joint effect on mean scores of change proneness. For analysing significant difference in-between various subgroups by interaction in-between gender (female and male) and experience (low, average and high) of secondary school

teachers on change proneness, 't'-values of different subgroups have been presented in the table 3.25.

**TABLE 3.25 't'-VALUE SUMMARY FOR SUBGROUPS OF CHANGE
PRONENESS OF TEACHERS w.r.t. GENDER x EXPERIENCE**

S.No.	·Group 1	·Group 2	't'-value
1	·Female teachers having low experience	·Female teachers having average experience	0.770
2	·Female teachers having low experience	·Female teachers having high experience	1.186
3	·Female teachers having low experience	·Male teachers having low experience	0.296
4	·Female teachers having low experience	·Male teachers having average experience	4.195*
5	·Female teachers having low experience	·Male teachers having high experience	2.640*
6	·Female teachers having average experience	·Male teachers having high experience	0.527
7	·Female teachers having average experience	·Male teachers having low experience	0.434
8	·Female teachers having average experience	·Male teachers having average experience	3.278*
9	·Female teachers having average experience	·Male teachers having high experience	2.016*
10	·Female teachers having high experience	·Male teachers having low experience	0.862
11	·Female teachers having high experience	·Male teachers having average experience	2.304*
12	·Female teachers having high experience	·Male teachers having high experience	1.358
13	·Male teachers having low experience	·Male teachers having average experience	3.599*
14	·Male teachers having low experience	·Male teachers having high experience	2.227*
15	·Male teachers having average experience	·Male teachers having high experience	0.636

*Significance level= .05

A perusal of table 3.25 discloses t-values of change proneness. The t-value of various subgroups such as low experienced female teachers and average experienced

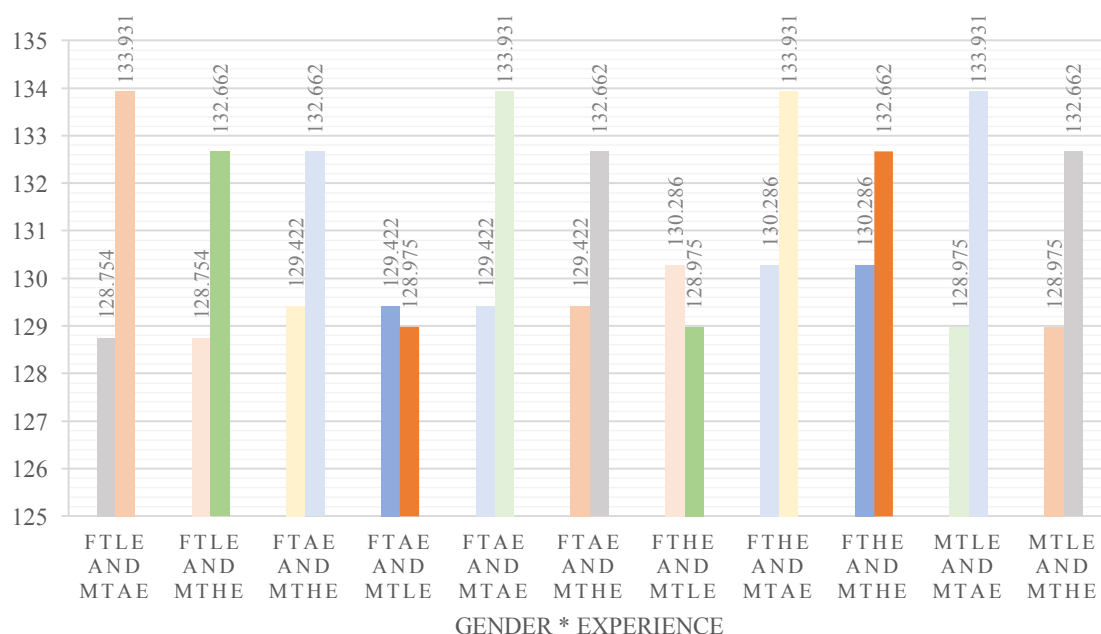
female teachers is 0.770; low experienced female teachers and high experienced female teachers is 1.186; female teachers having low experience and male teachers having low experience is 0.296; female teachers having average experience and male teachers having high experience is 0.527; female teachers having average experience and male teachers having low experience is 0.434; female teachers having high experience and male teachers having low experience is 0.862; female teachers having high experience and male teachers having high experience is 1.358; average experienced male teachers and high experienced male teachers is 0.636. These t-values are found to be insignificant ($p > .05$).

The 't'-values from table 3.25 and descriptive statistics from table 3.21 of subgroups lead to revelation that these above subgroups somewhat equally perceive change proneness. Alternatively, the t-value of subgroups like female teachers having low experience and male teachers having average experience is 4.195; low experienced female teachers and high experienced male teachers is 2.640; female teachers having average experience and male teachers having average experience is 3.278; female teachers having average experience and male teachers having high experience is 2.016; female teachers having high experience and male teachers having average experience is 2.304; low experienced male teachers and average experienced male teachers is 3.599; low experienced male teachers and high experienced male teachers is 2.227. These respective t values of subgroups are found as to be significant ($p < .05$). Thus, these subgroups differ from each other in their change proneness.

Also, from descriptive statistics table 3.21, it is clear that male teachers with average experience have more change proneness than female teachers with low experience; high experienced male teachers are having higher change proneness comparatively to low experienced female teachers; average experienced male teachers are having higher change proneness as compared to average experienced female teachers; male teachers having high experience have more change proneness than female teachers having average experience; male teachers having average experience have more change proneness than female teachers having high experience; male teachers having average experience have more change proneness than low experienced male teachers; high experienced male teachers are having higher change

proneness as compared to low experienced male teachers. So, the hypothesis H0_{1.27}, i.e. “There exists no significant interaction effect of gender and experience on change proneness of teachers” is partially accepted and partially rejected. The figure 3.52 reveals the graphical representation of comparative analysis of change proneness with respect to interaction effect of gender and experience.

FIGURE 3.52 GRAPHICAL REPRESENTATION OF COMPARATIVE ANALYSIS OF CHANGE PRONENESS WITH RESPECT TO GENDER* EXPERIENCE



TYPE OF SCHOOL x GENDER x EXPERIENCE

Via table 4.1.20, it is unfolded that the ‘F’ value for interaction in-between Type of school*Gender*Experience for change proneness among secondary school teachers is 1.392 and it is not found to be significant (p>.05). The resultant values disclose that the teachers on change proneness scores due to interaction in-between “type of school, gender and experience” for various subgroups is differing insignificantly. In light of the findings, it is evident to not reject the hypothesis H0_{1.28}, i.e. “There exists no significant interaction effect of type of school, gender and experience on change proneness of teachers”. Thus, these findings mean that subgroups of teachers because of the interaction in-between Type of school*Gender*Experience are not differing significantly in change proneness.

DISCUSSION

The findings of results lead to discover that private type of schools' secondary teachers as compared to government type of schools' secondary teachers have more willingness towards innovation in teaching meaning that they have more change proneness. The private teachers comparatively to their government counterpart teachers have better proneness in thoughts; inquisitiveness; radical change, shrewdness; innovativeness; inquiring tendency etc. in terms of change proneness. Raju (2013) studied change proneness of lecturer teachers. He disclosed that there existed significant differences between private and government aided lecturer teachers in their change proneness. Patel (2013) reported that significant differences existed between private school teachers and government school teachers. The private teachers were slightly higher in their change proneness in comparison to their government counterparts (Patel, 2013).

The male teachers are having higher change proneness comparatively to female counterparts. Data provides sufficient evidence in present study that male teachers as compared to female counterparts are more flexible, open and prone to change in their proneness in teaching process. The male teachers while comparing to female counterparts are better in imbibing new ideas and believing in taking risks for introduction of new strategies, have high attitude towards change proneness which can originate or generate new ideas. Furthermore, they have lesser fear of criticism and show lesser reluctance to invite new teaching strategies independent of in-hand framework of teaching. Rao (1999) revealed significant differences between the female teachers and male teachers. Barrera (2011) revealed a significant correlation between change readiness and gender of the employees. Shrivastava (2013) studied change proneness as a predictor for teacher effectiveness in secondary school teachers and revealed that significant differences existed between the secondary school teachers in their change proneness with respect to their gender. Whereas on basis of "Gender", Kaur (2014) found insignificant differences in employees' change readiness and Verma (2014) disclosed insignificant difference in-between teachers in change proneness.

In line with the present findings, Sen (2017) found significant differences in the change proneness with respect to the gender in “Secondary school teachers”. Interaction effect due to Type of school*Gender; Type of school*Gender*Experience of teachers on change proneness are found to be insignificant. Results show that change proneness due to interaction in-between various sub-groups do not differ significantly. Interaction in-between Type of school*Gender*Experience of teachers on change proneness is found to be significant, indicating that their main effects have a joint effect on mean scores of change proneness. These results of the research study insinuate with respect to the interaction effect of the demographic variables that the teachers having better change proneness conceptualize their imagination as an ability; something which is ideating; a process which is inventive; problem-solving and a mental or thinking activity; beyond thinking ordinarily i.e. not being limited by logic, personal inhibitions or reality; as a basis of thinking creatively i.e. being flexible, unique, product and idea of originality, fluent; an individuality expression; visualization, fantasizing dreaming as well as mind-wandering.

The secondary school teachers of average experience differ significantly in their change proneness from teachers of low experience. The secondary school teachers of high experience differ significantly in their change proneness from teachers of low experience. Whereas, secondary school teachers having average experience are not differing significantly in change proneness from teachers having high experience. The high experienced teachers in comparison to low experienced teachers and the average experienced teachers in comparison to low experienced teachers are innovators having better change proneness with fresh thoughts, they accept any kind of alterations and they strive exemplarily towards invention of new strategies. They are better in immediate thinking and implementation of new ideas and adopt them.

Chutima et al. (1997) revealed that change readiness is significantly related to the length of employment. With respect to experience, Barrera (2011) also found significant differences in the employees in their change readiness. Similarly, Kaur (2014) disclosed no insignificant difference in change readiness of executives on the basis of different categories of experience. Vice-versa revelations were done by

Weber and Weber (2001) and Barber (2010) indicating that there is no relationship between the two. Supporting the findings of the present study, Shrivastava (2013) found significant differences between the teachers in their change proneness with respect to their experience in teaching but contrarily, she found insignificant differences are occurring in-between school teachers in change proneness with respect to the interaction effect of their gender and experience. Similarly, to the present study, Sen (2017) found no insignificant differences between the secondary school teachers in their change proneness with respect to their experience in teaching at school.

3.4 CORRELATIONAL ANALYSIS

III. Objective: To study the relationship of teacher effectiveness with adversity quotient, alienation and change proneness of teachers.

For measuring the relationship in-between dependent variable (teacher effectiveness) and the independent variables (adversity quotient, alienation and change proneness), method of Karl Pearson product moment correlation has been applied. For examining the psychological constructs, this correlation method is the most commonly used technique. Therefore, keeping in mind the third objective of the present study, the aforementioned correlation technique was applied.

3.4.1 RELATIONSHIP OF TEACHER EFFECTIVENESS WITH ADVERSITY QUOTIENT, ALIENATION AND CHANGE PRONENESS OF TEACHERS

The relationship of teacher effectiveness with adversity quotient, alienation and change proneness of teachers has been analysed in this section. For this purpose, correlation matrix using method of Karl Pearson product moment correlation has been constructed for analysing how each measured independent construct correlates with the teacher effectiveness (dependent variable) of this study.

Tabulation of correlation in-between “Teacher Effectiveness and its dimensions with Adversity Quotient and its dimensions; Alienation and its dimensions and Change Proneness” of teachers is displayed in the table 3.26.

TABLE 3.26 CORRELATION SUMMARY OF TEACHER EFFECTIVENESS WITH ADVERSITY QUOTIENT, ALIENATION AND CHANGE PRONENESS OF TEACHERS

	TEACHER EFFECTIVENESS AND DIMENSIONS					
IV	PTP	CM	KSM	TC	IR	TE
AQ	.253**	.236**	.257**	.312**	.311**	.442**
Ctrl	.199**	.148**	.170**	.150**	.169**	.216**
OE	.158**	.206**	.155**	.204**	.153**	.250**
Reach	.217**	.174**	.152**	.144**	.164**	.228**
An	-.348**	-.155**	-.228**	-.383**	-.449**	-.522**
WA	-.319**	-.176**	-.250**	-.364**	-.403**	-.499**
SI	-.180**	-.149**	-.144**	-.142	-.147**	-.197**
CE	-.274**	-.160**	-.227**	-.365**	-.347**	-.453**
CP	.266**	.227**	.248**	.371**	.332**	.478**

** Significance Level= .01

Note: “AQ= Adversity Quotient, OE= Ownership and Endurance; An= Alienation, WA= Work Alienation, SI= Social Isolation, CE= Cultural Estrangement; CP= Change Proneness; IVs= Independent Variables; TE= Teacher Effectiveness, PTP= preparation for teaching and planning, CM= classroom management, KSM= knowledge of subject-matter etc., TC= teacher characteristics, IR= interpersonal relations”

3.4.1.1 CORRELATION OF TEACHER EFFECTIVENESS WITH ADVERSITY QUOTIENT OF TEACHERS

Above table 3.26 displays correlation of teacher effectiveness with adversity quotient of teachers. The relationship between independent variables and the dependent variable is in the expected direction with low to moderate magnitudes. Examination of the correlation matrix puts forth that overall, among “Adversity Quotient and its dimensions viz. Control, Ownership and Endurance, Reach”, the adversity quotient has the highest bivariate correlation with the teacher effectiveness with $r=.442$ (Significant, $p<.01$).

The table 3.36 presents that control dimension of adversity quotient is positively linked with teacher effectiveness and its dimensions viz. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” with $r=.216, .199, .148, .169, .170, .150$ respectively. The resultant correlation values of the control dimension of adversity quotient with teacher effectiveness and its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” are respectively found significant ($p<.01$).

Viewing entries in the aforementioned table 3.36 shows that ownership and endurance was positively related to teacher effectiveness with $r=.250$ and its dimensions viz. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” with $r=.158, .206, .155, .204, .153$ respectively. The correlation was respectively found significant ($p<.01$) for teacher effectiveness and its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations”.

The values of correlation in aforementioned table 3.36 reveal that the reach dimension of adversity quotient has a positive correlation with teacher effectiveness and its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations”. The resultant value of correlation of reach dimension of adversity quotient with teacher effectiveness is $r=.228$ and its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” is in the expected direction with $r= .217, .174, .152, .144, .164$ respectively and they all aren't found insignificant at 0.01 level of significance. It may be significant to note that a decline in reach will decrease the teacher effectiveness of teachers and vice-versa.

In terms of the overall adversity quotient and teacher effectiveness and its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations”, their association has been found to be moderate and significant ($p<.01$) with $r=.442, r=.253, r=.236, r=.257, r=.312, r=.311$ respectively. Apart from being significant, it may also be important to note that the associations and directions of all these constructs were positive in nature. Therefore, this can be considered as a sign indicating that the increase in adversity quotient will increase the teacher effectiveness of teachers and the same direction will also be true in the vice-versa situation. Therefore, the hypothesis $H_{0II.1}$, i.e. “There exists no significant relationship of teacher effectiveness with adversity of teachers” stands unaccepted for “adversity quotient and its dimensions i.e. control, ownership and endurance, reach” with teacher

effectiveness and its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations”. Hence, there is a significant association between teacher effectiveness and adversity quotient.

3.4.1.2 CORRELATION BETWEEN TEACHER EFFECTIVENESS AND ALIENATION OF TEACHERS

A perusal of 3.26 discloses the correlation of teacher effectiveness with alienation of teachers. The relationship in-between the independent variable i.e. alienation and its dimensions i.e. work alienation, social isolation, cultural estrangement with dependent variable i.e. teacher effectiveness and its dimensions viz. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” is in the expected direction with moderate magnitudes to low magnitudes. By examination the correlation matrix, it is reflected that overall, alienation has the highest bivariate correlation with the teacher effectiveness with $r = -.522$ and it is found as significant ($p < .01$).

Further by observing table 3.26, it has been disclosed that alienation dimension viz. work alienation is negatively linked with teacher effectiveness with $r = -.499$ and its dimensions viz. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” with $r = -.319, -.176, -.250, -.364, -.403$ respectively. The correlations between work alienation and teacher effectiveness and its dimensions viz. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” were respectively found significant ($p < .01$).

Table 3.26 displays that social isolation was negatively correlated to teacher effectiveness with $r = -.197$ and its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” with $r = -.180, -.149, -.144, -.142, -.147$ respectively. The correlation of social isolation dimension of alienation was found

significant ($p < .01$) for teacher effectiveness dimension viz. preparation for teaching and planning; insignificant ($p > .01$, $p > .05$) for teacher effectiveness dimension viz. teacher characteristics and significant ($p < .01$) for teacher effectiveness and its dimensions i.e. “Classroom management, Knowledge of subject-matter etc., Interpersonal relations”.

The values documented in table 3.26 reflect that cultural estrangement was negatively related with teacher effectiveness and its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations”. The correlation of cultural estrangement with teacher effectiveness is $r = -.453$, and its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” is in the expected direction with $r = -.274$, $-.160$, $-.227$, $-.365$, $-.347$ respectively. These correlational values are respectively found not insignificant ($p < .01$). Hence, these results are pointing that a lower level of cultural estrangement of teachers will lead to a higher level of teacher effectiveness in secondary school teachers and vice-versa, a higher level of cultural estrangement of teachers will lead to a lower teacher effectiveness level in teachers.

Examining in the terms of the overall alienation and teacher effectiveness and its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations”, their association was found to be negative, moderate and significant ($p < .01$) with $r = -.522$, $r = -.348$, $r = -.155$, $r = -.228$, $r = -.383$, $r = -.449$ respectively. It may be essential to note that the associations and directions of these constructs were significant and negative. Thus, it may be considered in light of the results that a decrease in alienation will increase teachers’ teacher effectiveness. Therefore, the hypothesis $H_{0II.2}$, i.e. “There exists no significant relationship of teacher effectiveness with alienation of teachers” isn’t accepted for alienation and its dimensions i.e. work alienation, social isolation, cultural estrangement with teacher effectiveness along with its dimensions and only accepted for correlation between alienation dimension viz. social isolation and teacher effectiveness dimension viz. “Teacher

characteristics”. These results, therefore, demonstrate that overall alienation is significantly and negatively correlated with teacher effectiveness and its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations”.

3.4.1.3 CORRELATION OF TEACHER EFFECTIVENESS WITH CHANGE PRONENESS OF TEACHERS

A glance at the table 3.26 very well discloses the values of correlation of teacher effectiveness with change proneness of teachers. Relationship in-between change proneness (independent variable) and teacher effectiveness and its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” (dependent variables) is in the expected path going from low to moderate magnitudes. Perusal of the correlation matrix from table 3.26 reveals that in between change proneness and teacher effectiveness as well as with its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations”, the change proneness has the highest bivariate correlation with the teacher effectiveness with $r=.478$. This resultant correlation is found significant ($p<.01$).

This has been discovered from the table 3.26 that in terms association between change proneness and teacher effectiveness dimensions, i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” is respectively found to moderate and significant ($p<.01$) with $r=.266$, $r=.227$, $r=.248$, $r=.371$, $r=.332$ respectively. Thus, it is reflected via the resultant values of correlation analysis that the associations and directions of all these constructs were positive. Thus, the hypothesis $H_{01.3}$, i.e. “There exists no significant relationship of teacher effectiveness with change proneness of teachers” stands rejected for change proneness. Therefore, an increase in change proneness will also increase the teacher effectiveness of secondary school teachers moderately.

DISCUSSION

The “Adversity quotient and its dimensions i.e. control, ownership and endurance, reach” and independent variable change proneness, have a positive, significant and bivariate correlation with teacher effectiveness and its dimensions namely, “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations”. Therefore, an increase in adversity quotient and change proneness will increase moderately or mildly teacher effectiveness and its dimensions. Teaching rigors insinuate that positive traits buffering against the adversities may contribute to teacher effectiveness (Duckworth, 2009). Adversity affects teacher effectiveness (Chauvin, 1992). A positive increase in change proneness will increase teacher effectiveness moderately and also, a negative decrease in change proneness will lead the teacher effectiveness to fall significantly in moderation. Shrivastava (2013) revealed that there is a relationship (significant) between change proneness and teacher effectiveness of secondary school teachers. Also, it has been disclosed that there is a relationship (significant) between change proneness and teacher effectiveness of the, male teachers, female teachers, rural teachers, science teachers, non-science teachers, urban teachers, average experienced teachers, high experienced teachers (Shrivastava, 2013).

Whereas alienation and its dimensions namely, work alienation, social isolation, cultural estrangement have a vice-versa negative bivariate correlation with teacher effectiveness and its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations”. Only the correlation between alienation dimension viz. social isolation and teacher effectiveness dimension viz. teacher characteristics is found to be not significant. This in turn points out that if teachers are isolated socially then, there is a probability that this negative situation will not have much significant effect on the teacher characteristics. This is maybe due to the reason that some of the other variables are potent in having a more significant association with teacher characteristics other than social isolation. So overall, it may be important to note that the associations and directions of alienation are negative with teacher effectiveness

and its dimensions i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations”. So, a decrease in alienation will increase the effectiveness of teachers. Whereas, an increase in alienation will decrease the effectiveness of teachers. Prasad (1996) revealed that a significant negative correlation exists between alienation and teacher effectiveness.

Apart from the above aforementioned studies showing an overall direct correlation between adversity quotient, alienation, change proneness with teacher effectiveness, there are not much studies directly reflecting the same. Hence, it becomes important to review the related literature of the variables that are correlated with adversity quotient as well as teacher effectiveness, between alienation and teacher effectiveness and also, change proneness and teacher effectiveness to further understand links between their respective relationships. According to Scheerens (2004, 2008), Interchangeably, teacher effectiveness; instructional effectiveness and teaching effectiveness are often used. Hunt et al. (2009) disclosed that teaching performance is encompassed in teacher effectiveness. Bautista (2015) revealed that there exists a significant relationship between the adversity quotient and the teaching performance of the teacher faculty members and also, there is a relationship (significant) in-between the adversity quotient and the school performance. Stoltz (2000) revealed that there is a relationship (significant) between the adversity quotient and the school performance of secondary school teachers. Tanega et al. (2009) disclosed relationship (significant) in-between the “Adversity quotient and Teaching performance” of teachers. Cando and Villacastin (2014) also revealed relationship (significant) in-between the “Adversity quotient and Teaching performance” of EFL teachers. Akiri and Ugborugbo (2009) studied the classroom effectiveness of teachers and disclosed that it exerted minimal influence on the students’ academic performance. Correlation (significant and positive) exists between the “Control dimension of Adversity quotient and Academic performance” (Mwivanda & Kingi, 2019). The findings of Malik and Akram (2020) revealed that head teachers’ effectiveness significantly predicts school performance. D’Souza (2006) revealed a positive correlation between school performance and adversity quotient. Revelations

by Bahri and Farizal (2020) disclosed that teacher performance and adversity quotient are positively related. Also, Huijuan (2009) and Bakare (2013) revealed that “Adversity quotient and Academic performance” have an association (significant). Bakare (2013) also in line with a study by Huijaan (2009) asserted that a person with high adversity quotient will have higher academic performance. According to Stoltz and Weihenmayer (2008), adversity response affects an individual’s performance, efficiency and success and also, results by Tian and Fan (2014) concluded that dealing with adversities by the teachers is correlated to their success, efficacy and performance. Canivel (2010) found that the adversity quotient is positively correlated to the performance of the school principals.

According to Boykin and Noguera (2011), professional development and teacher effectiveness are linked with each other. A study on extrovert and introvert EFL teachers by Marashi and Fotoohi (2017) found relationship (significant) in-between “Adversity quotient and the Professional development” of teachers. A predominant principle of the race towards the peak benchmark is that the states require feasible methods for measuring teacher effectiveness, providing a rating of effectiveness to each teacher and using these ratings for informing the professional development, promotion, compensation, tenure, and dismissal. By revelations of PEAK Learning Inc. (2000), it was found that “Adversity quotient” is correlated (positive) with promotion and performance. In comparison to ineffective teachers, effective teachers have a positive attitude (Roul, 2002). As compared to teachers having an unfavourable attitude and moderate attitude for the teaching profession, favourable attitude teachers have more teachers’ effectiveness in teaching (Mangalamma & Vardhini, 2017). Positive and significant interrelationship occurs in-between the “Adversity quotient and Attitude” of prospective teachers. Therefore, the higher the adversity quotient, the higher will be the level of attitude (Biswas & Banerjee, 2016).

Ramkrishna and Phogat (2017) indicated association (positive) in-between “teacher effectiveness and self-esteem” of teachers. Parvathy and Praseeda (2014) showed a significant inverse relationship between academic problems and AQ with the partial effect of self-esteem out among prospective teachers. Stoltz (1997)

revealed that the science of resilience in humans is known as adversity quotient. For effectiveness of the teachers, resilience in teachers is a necessary and important condition. By being resilient, the teachers are enabled to sustain, flourish and thrive their effectiveness (Gu & Day, 2007). For teachers to sustain their effectiveness for teaching, the professional identity of teachers impacts their resilience and relative commitment (Ko et al., 2016). According to Gu (2014), the resilience of teachers and the relative effectiveness of teachers are associated.

It is also essential to discuss the present section in relation to alienation and teacher effectiveness in terms of literature review of variables that correlate with alienation as well as teacher effectiveness since not much direct overall correlational studies have been conducted in this regard. Malik and Sharma (2013) revealed a positive correlation between secondary school teachers' professional commitment and teacher effectiveness. Also, Jha and Grace (2018) disclosed a positive significant association between the professional commitment and teacher effectiveness of teachers. Many findings revealed that teacher effectiveness is positively related to teacher commitment (Rosenholtz, 1989; Martinez-Pong, 1990; Kushnan, 1992; Reyes & Fuller, 1995; Fresko et al., 1997; Singh & Billingsley, 1998). According to Dworkin et al. (2003), alienation experiences of powerlessness and meaninglessness which were prolonged could decrease the teaching commitment of teachers. This in turn could foster isolation. According to Choi and Tang (2009), experiences of alienation and in terms of meaninglessness and powerlessness in prolongation can decrease teaching commitment of a teacher. Tsang (2016) stated that negative emotions of teachers in teaching are caused by alienation. The loss of teaching commitment leads to isolation of feelings. Ramkrishna and Phogat (2017) indicated association (positive) in-between "Teacher effectiveness and Self-esteem" of teachers. Halder and Roy (2018) found correlation (positive) in-between "Teacher effectiveness and Job satisfaction". Dhillon (2019) found negative relationship (significant) in-between "Alienation and Job satisfaction" of the teachers. Also, the study found negative relationship (significant) in-between "Alienation and Self-esteem" of the teachers. Pestonjee (1979) indicated that alienation levels and job satisfaction are related to each other. Arter (2017) disclosed that low job satisfaction results in

alienation. Arter and Erdil (2017) indicated that job satisfaction and work alienation are related.

Discussed in detail in the report namely, “Effective teacher: Professionalism”, it was pointed that professionalism plays an essential role on effective teachers (Davis School District [DSD], 2010). Yorulmaz et al. (2015) revealed that teachers’ alienation and occupational professionalism levels are significantly related. Ostovar-Nameghi and Sheikahmadi (2016) pointed out in their review of related literature based paper that isolation has negative effects on the professional life of teachers. Teacher effectiveness and academic achievement have a strong correlation (Ezugwu & Ijeoma, 2011). There is a negative correlation between alienation and academic achievement (Bester & Budhal, 2001; Oviawe, 2016). According to Prasad (1996), in terms of scores, the low effective teachers had higher degree (significant) of alienation comparatively to high effective teachers in factors and overall alienation.

It is quite crucial to discuss the present section in relation to change proneness and teacher effectiveness in terms of review of related literature of the constructs that are correlated with both change proneness and teacher effectiveness to understand their overall relationship as not much direct overall correlational studies have been conducted for the same. Teachers’ effectiveness in teaching and principal-teacher relationship (both narrow and wide) have a significant relationship (Abari et al., 2016). As compared to teachers having an unfavourable attitude and moderate attitude for the teaching profession, favourable attitude teachers have more teachers’ effectiveness in teaching (Mangalamma & Vardhini, 2017). Principals’ effective leadership behaviour fosters increased teacher effectiveness (Malhotra & Bhatia, 2019). Effective teachers generate positive rapport (Haynes & Backell, 2011). Secondary school teachers’ teacher effectiveness and urban locality have a significant relationship (Dua, 2014). There is a correlation (positive) in-between “Teacher effectiveness and Job satisfaction” (Halder & Roy, 2018). Mukhopadhyay and Saxena (1980) concluded and reported that the change proneness has relationship (significant and positive) with teachers’ relation with principal; attitude towards the profession of teaching; teaching satisfaction; principal’s perceived leadership behavior; teacher’s rapport; urban background and job satisfaction of principals and teachers.

Revelations through a review of literature point out that, teacher efficacy aids a teacher to plan effective strategies of instruction, ascends performance and intensifies teacher effectiveness (Dibapile, 2012). As compared to teachers having unfavourable attitude and moderate attitude for the teaching profession, favourable attitude teachers have more teachers' effectiveness in teaching (Mangalamma & Vardhini, 2017). According to Scheerens (2004, 2008), Interchangeably, the terms teacher effectiveness and teaching effectiveness are used. Among the dimensions of teachers' teaching effectiveness, Hativa et al. (2001) proposed interest as amongst one of its four dimensions. Suryanarayana and Luciana (2010) and Bagarti and Mishra (2012) revealed that the teacher's role efficiency, job satisfaction and change proneness are closely related to one another. Change proneness is a factor contributing to effectiveness in the classroom. The change proneness effects the teacher's attitude and interest (Suryanarayana & Luciana, 2010). Wikipedia (2011) documented that the teachers' work style discloses the presence of teachers of two types. The first type are the ones who are self-relied, taking risks to originate new which is termed as the origin. The second type are the ones who are blindly dependant on work with rigid rules in the hands of other people which is termed as pawns. The teachers have acceptance for the origin ideology, would be an effective teacher. Teachers of origin type yield better teachers' effectiveness in school (Rao, 1997).

Secondary school teachers' change proneness and origin-pawn ideology have a positively significant relationship (Raju, 2012). Teachers, school heads and parents perceive that teacher effectiveness and teacher motivation are positively correlated (Muranda et al., 2015). Raju (2013) reported that there is a relationship (existed a positive and significant) in-between change proneness and teacher motivation. Teacher effectiveness is significantly related to "teacher morale of government and private secondary school teachers" (Kaur, 2011). Padala (2014) reported a relationship (positive, high and significant) in-between change proneness and the morale of the college lecturer teachers. A relationship (significant and positive) intra and inter relationship among the lecturer teachers' change proneness and morale also exists. Amalorpavamary and Velsamy (2016) revealed that the lecturer teachers' aspects of change proneness and morale were inter-dependent

Teacher effectiveness is significantly related to “teacher performance of government and private secondary school teachers” (Kaur, 2011). Jain (2015) revealed that change prone teachers of open organizational climate have a relationship (positive) with the teacher performance. The level of self efficacy and teacher effectiveness of teachers are positively correlated (Garg, 2019). There exists a positively significant relationship between change proneness and teacher efficacy of secondary school teachers (Raju, 2017). Malik and Sharma (2013) revealed a positive correlation between “Professional commitment and Teacher effectiveness” of secondary school teachers. Also, Jha and Grace (2018) disclosed a positive and significant association between the “Professional commitment and Teacher effectiveness” of teachers. Sen and Sood (2018) revealed that the “change proneness level of the secondary school teachers significantly interacted with the professional commitment of the secondary school teachers”. Shrivastava (2013) revealed relationship (significant) in-between “Change proneness and Teacher effectiveness” of secondary school teachers. Shrivastava (2013) also found relationship intensity in-between the “Change proneness and Teacher effectiveness” was higher in urban teachers as compared to rural teachers; more in male teachers as compared to female teachers; more in science teachers as compared to non-science teachers; more in average experienced teachers as compared to low experienced teachers; more in average experienced teachers as compared to high experienced teachers; more in high experienced teachers as compared to low experienced teachers.

3.5 REGRESSION ANALYSIS

IV. OBJECTIVE: To study the role of adversity quotient, alienation and change proneness on teacher effectiveness of teachers.

3.5.1 ROLE OF ADVERSITY QUOTIENT, ALIENATION AND CHANGE PRONENESS (INDEPENDENT VARIABLES) ON TEACHER EFFECTIVENESS (DEPENDENT VARIABLE) OF TEACHERS

Before carrying out regression analysis, the multicollinearity among the independent variables i.e. adversity quotient, alienation and change proneness was checked. The variance inflation factor (VIF) value of adversity quotient is 2.334, alienation is 1.727 and change proneness is 2.683. Some studies reveal that the VIF

value less than 10 is acceptable (Hair et al., 1995) whereas other studies disclose that the limit value of VIF is 5 at maximum (Ringle et al., 2015). The resultant VIF value of adversity quotient, alienation and change proneness is less than the threshold value. Henceforth, regression analysis may be carried forward. For fitting model for predicting role of “Adversity Quotient, Alienation and Change Proneness on Teacher Effectiveness”, comprehensive details of the regression model fit and its validity has been presented in the following tables.

TABLE 3.27
SUMMARY OF REGRESSION ANALYSIS BETWEEN ADVERSITY QUOTIENT, ALIENATION, CHANGE PRONENESS (INDEPENDENT VARIABLES) AND TEACHER EFFECTIVENESS (DEPENDENT VARIABLE)

DEPENDENT VARIABLE	IV (Predictors)	R	R Square	S.E.E.
TEACHER EFFECTIVENESS	(Constant) AQ, An, CP	.561 ^a	0.315	7.404

Note: I.V.= Independent variable; A.Q.= Adversity quotient; An.= Alienation; C.P.= Change proneness; S.E.E.= Standard error of estimation

The above table 3.27 of regression analysis with respect to the study’s objectives provided by data analysis is a summary of the model. This summary table 3.37 displays the value R and R² for the model that has been derived. For teacher effectiveness as the dependent variable and together adversity quotient, alienation and change proneness as predictors, R i.e. multiple correlation has a value of .561 and R² i.e. “Coefficient of Determination” has a value viz. 0.315. This indicates that adversity quotient, alienation and change proneness can account for 31.5% of the variation in the teacher effectiveness scores.

TABLE 3.28
SUMMARY OF ANOVA FOR REGRESSION ANALYSIS

DEPENDENT VARIABLE	MODEL	SS	df	MS	F	Sig.
TEACHER EFFECTIVENESS (TE)	Regression	12496.61	3	4165.537	75.981	.000 ^b
	Residual	27192.228	496	54.823		
	Total	39688.838	499			

Note: T.E.= Teacher effectiveness; S.S.= Sum of Squares, df= degree of freedom, M.S.= Mean Sum of Square

For the data, F-value is 75.981 and it is found as a result of analysis of variance for teacher effectiveness (dependent variable) and adversity quotient, alienation, change proneness as predictors. This value is significant at 0.01 level. Hence, it could be deduced that resultant regression model is a better predictor (significant) of teacher effectiveness. Therefore, the proposed regression model for the study variables is a good fit. Hence, the analysis via regression is feasible and may be carried forward.

TABLE 3.29
CO-EFFICIENT SUMMARY FOR REGRESSION ANALYSIS

DV	IV (Predictors)	Unstdzd. Co-efficients		Stdzd. Co-efficients	t	Sig.	(Threshold <5) VIF
		B	Std. Error	Beta			
TE	(Constant)	469.807	8.190		57.366	.000	
	AQ	0.222	0.056	0.225	3.193	.000	2.334
	An	-0.346	0.049	-0.347	-7.110	.000	1.727
	CP	0.263	0.061	0.264	4.699	.000	2.683

Note: TE= Teacher effectiveness; AQ= Adversity Quotient; An= Alienation; CP= Change Proneness

Regression analysis discloses that adversity quotient, alienation, change proneness have a role (positive and significant) on the teacher effectiveness of secondary school teachers. Table 3.29 reveals that for adversity quotient, the value of B is 0.222 and t value is 3.193, $p < 0.05$; for alienation, the value of B is -0.346 and t value is -7.110, $p < 0.05$ and for change proneness, the value of B is 0.263 and t value is 4.699, $p < 0.05$ and they are found statistically significant, i.e. adversity quotient, alienation, change proneness have a role (significant) on teacher effectiveness.

The overall regression equation formulated from all variables is, '*Teacher Effectiveness* = $469.807 + 0.222 * Adversity\ Quotient + (-0.346) * Alienation + 0.263 * Change\ Proneness$ '. These findings lead to conclude that high adversity quotient, alienation, change proneness lead secondary school teachers towards high teacher effectiveness. The highest role played on teacher effectiveness is by alienation followed by change proneness then adversity quotient.

Therefore, in the light of calculated results the set hypothesis H_{0III} , i.e. "Adversity quotient, alienation, change proneness play no significant role on teacher

effectiveness of teachers” stands rejected. So, it can be deduced that with increase of the adversity quotient, alienation and change proneness, the teacher effectiveness of teachers also increases in moderation.

3.5.1.1 ROLE OF ADVERSITY QUOTIENT, ALIENATION AND CHANGE PRONENESS ON DIMENSIONS OF TEACHER EFFECTIVENESS.

For the purpose to determine a fit model for predicting the role of adversity quotient, alienation and change proneness on dimensions of teacher effectiveness i.e. “Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations”, the comprehensive details of fit regression model and its validity has been reported as follows.

- *The section below gives account of role played by the predictor variables on the dependent variable i.e. “Preparation for teaching and planning”.*

TABLE 3.30
REGRESSION ANALYSIS SUMMARY BETWEEN ADVERSITY QUOTIENT, ALIENATION, CHANGE PRONENESS (INDEPENDENT VARIABLES) AND “PREPARATION FOR TEACHING AND PLANNING” (DEPENDENT VARIABLE)

DEPENDENT VARIABLE	I.V. (Predictors)	R	R Square	S.E.E.
T.E. DIMENSION 1: P.T.P.	Constant) A.Q., An., C.P.	.355 ^a	0.126	1.945

Note: I.V.= Independent variable; T.E.= Teacher effectiveness; P.T.P.= “Preparation for teaching and planning”; A.Q.= Adversity quotient; An.= Alienation; C.P.= Change proneness; S.E.E.= Standard error of estimation

Perusal of above table 3.30 reveals regression analysis provided by data analysis for teacher effectiveness dimension viz. “Preparation for teaching and planning” as dependent variable and adversity quotient, alienation and change proneness as predictors, the value R i.e. multiple correlation is .355 and R² i.e. coefficient of determination has a value of 0.126 and this indicates that together adversity quotient, alienation and change proneness can account for 12.6% of the variation in the teacher effectiveness dimension viz. “preparation for teaching and planning” scores.

TABLE 3.31**SUMMARY OF ANOVA FOR REGRESSION ANALYSIS**

DEPENDENT VARIABLE	MODEL	S.S.	df	M.S.	F	Sig.
T.E. DIMENSION 1: P.T.P.	Regression	270.880	3	90.293	23.879	.000 ^b
	Residual	1875.512	496	3.781		
	Total	2146.392	499			

Note: T.E.= Teacher effectiveness; P.T.P.= “Preparation for teaching and planning”; S.S.= Sum of Squares, df= degree of freedom, M.S.= Mean Sum of Square

For teacher effectiveness dimension, i.e. “Preparation for teaching and planning, Classroom management”, the F-value is 23.879 ($p < .01$). Thus, its deduced that resultant regression model predicts teacher effectiveness dimensions viz. “Preparation for teaching and planning” of secondary school teachers significantly. Therefore, this model of regression is good fit. So, the analysis via regression is feasible and may be carried forward.

TABLE 3.32**COEFFICIENTS SUMMARY FOR REGRESSION ANALYSIS**

DV	IV (Predictors)	Unstdzd. Coefficients		Stdzd. Coefficients		Sig.	Threshold <5
		B	Std. Error	Beta	t		
TE d1:	(Constant)	85.277	2.151		39.649	.000	
PTP	AQ	0.058	0.011	0.253	5.833	.000	2.334
	An	-0.081	0.010	-0.348	-8.279	.000	1.727
	CP	0.062	0.012	0.266	6.158	.000	2.683

Note: TE= Teacher effectiveness, d= Dimension, PTP= “preparation for teaching and planning”; AQ= Adversity Quotient; An= Alienation; CP= Change Proneness

The regression analysis presents that adversity quotient, alienation, change proneness significantly and positively contribute towards teacher effectiveness dimension viz. “Preparation for teaching and planning”. It’s absolutely clear via table 3.32 that for adversity quotient, the value of B is 0.058 and t is 5.833, $p < 0.05$; for alienation, the value of B is -0.081 and t is -8.279, $p < 0.05$ and for change proneness, the value of B is 0.062 and t is 6.158, $p < 0.01$. They are found statistically significant, i.e. adversity quotient, alienation, change proneness are significant predictors of teacher effectiveness dimension viz. “Preparation for teaching and planning” of

secondary school teachers.

Therefore, the regression equation formulated on the basis of the findings is, '*Preparation for Teaching and Planning* = $85.277 + 0.058 * \text{Adversity Quotient} + (-0.081) * \text{Alienation} + 0.062 * \text{Change Proneness}$ '. These findings lead to conclude that higher the adversity quotient, alienation, change proneness of secondary school teachers, higher will be the teacher effectiveness dimension viz. "Preparation for teaching and planning". So, it can be deduced that with the increase of adversity quotient, alienation and change proneness, the teacher effectiveness dimension viz. "Preparation for teaching and planning" of teachers also increases. The highest contribution is of alienation followed by change proneness then adversity quotient.

- *The role played by the predictor variables on classroom management (dependent variable) is reported below:*

TABLE 3.33
REGRESSION ANALYSIS SUMMARY BETWEEN ADVERSITY QUOTIENT, ALIENATION, CHANGE PRONENESS (INDEPENDENT VARIABLES) AND CLASSROOM MANAGEMENT (DEPENDENT VARIABLE)

DEPENDENT VARIABLE	I.V. (Predictors)	R	R Square	S.E.E.
T.E. DIMENSION 2: C.M.	(Constant) A.Q., An., C.P.	.248 ^a	0.061	2.198

Note: I.V.= Independent variable; T.E.= Teacher effectiveness; C.M.= "Classroom management"; A.Q.= Adversity quotient; An.= Alienation; C.P.= Change proneness; S.E.E.= Standard error of estimation

The observation of table 3.33 discovers that adversity quotient, alienation and change proneness as predictors and classroom management as dependent variable, the value R i.e. multiple correlation is .248 and R² i.e. coefficient of determination has a value of 0.061. This unfolds that adversity quotient, alienation and change proneness can account for 6.1% of the variation in the teacher effectiveness dimension viz. "classroom management" scores.

TABLE 3.34**SUMMARY OF ANOVA FOR REGRESSION ANALYSIS**

DEPENDENT VARIABLE	MODEL	S.S.	df	M.S.	F	Sig.
T.E. DIMENSION 2: C.M.	Regression	344.583	3	114.861	25.798	.000 ^b
	Residual	2208.367	496	4.452		
	Total	2552.95	499			

Note: T.E.= Teacher effectiveness; C.M.= "Classroom Management"; S.S.= Sum of Squares, df= degree of freedom, M.S.= Mean Sum of Square

For classroom management, the F-value is 25.798 ($p < .01$). Hence, its deduced that resultant regression model predicts Classroom management (teacher effectiveness dimension) of teachers significantly. Therefore, this model of regression is good fit. So, the analysis via regression is feasible and may be carried forward.

TABLE 3.35**COEFFICIENTS SUMMARY FOR REGRESSION ANALYSIS**

DV	IV (Predictors)	Unstdzd. Coefficients		Stdzd. Coefficients	t	Sig.	(Threshold <5)
		B	Std. Error	Beta			
TE d2:	(Constant)	108.068	2.431		44.454	.000	
CM	AQ	0.059	0.010	0.236	5.415	.000	2.334
	An	-0.037	0.017	-0.150	-2.265	.024	1.727
	CP	0.057	0.011	0.227	5.203	.000	2.683

Note: TE= Teacher effectiveness, d= Dimension, CM= Classroom management"; AQ= Adversity Quotient; An= Alienation; CP= Change Proneness

By merely looking at the table no. 3.35, its insinuated that adversity quotient, alienation, change proneness significantly and positively contribute teacher effectiveness dimension viz. classroom management of teachers. For adversity quotient, the value of B is 0.059 and t is 5.415, $p < 0.05$; for alienation, the value of B is -0.037 and t is -2.265, $p < 0.05$ and for change proneness, the value of B is 0.057 and t is 5.203, $p < 0.05$. these values are found to be statistically significant. So, adversity quotient, alienation, change proneness are significant predictors of secondary school teachers' classroom management. The highest contribution is of adversity quotient followed by change proneness then alienation.

The regression equation formulated from all variables is, '*Classroom Management*= 108.068+ 0.059**Adversity Quotient*+ (-0.037)**Alienation*+ 0.057**Change Proneness*'. Results unfold that lower the adversity quotient, alienation, change proneness of secondary school teachers, lower will be the teacher effectiveness dimension viz. "classroom management".

- Below are the details on role played by the predictor variables on the dependent variable viz. "Knowledge of subject-matter etc.":

TABLE 3.36
REGRESSION ANALYSIS SUMMARY BETWEEN ADVERSITY QUOTIENT, ALIENATION, CHANGE PRONENESS (INDEPENDENT VARIABLES) AND "KNOWLEDGE OF SUBJECT-MATTER ETC." (DEPENDENT VARIABLE)

DEPENDENT VARIABLE	I.V. (Predictors)	R	R Square	S.E.E.
T.E. DIMENSION 3: K.S.M.	(Constant) A.Q., An., C.P.	.280 ^a	0.079	1.918

Note: I.V.= Independent variable; T.E.= Teacher effectiveness; K.S.M.= "Knowledge of Subject-matter etc."; A.Q.= Adversity quotient; An.= Alienation; C.P.= Change proneness; S.E.E.= Standard error of estimation

For "Knowledge of subject-matter etc." dimension as dependent variable and adversity quotient, alienation and change proneness as predictor variables, the value R i.e. multiple correlation is .280 and R² i.e. coefficient of determination is 0.079. This reveals that adversity quotient, alienation and change proneness can account for 7.9% of the variation in the teacher effectiveness dimension viz. "Knowledge of subject-matter etc."

TABLE 3.37
SUMMARY OF ANOVA FOR REGRESSION ANALYSIS

DEPENDENT VARIABLE	MODEL	S.S.	df	M.S.	F	Sig.
T.E. DIMENSION 3: K.S.M.	Regression	378.759	3	126.253	39.09	.000 ^b
	Residual	1601.999	496	3.23		
	Total	1980.758	499			

Note: T.E.= Teacher effectiveness; K.S.M.= "Knowledge of Subject-matter etc."; S.S.= Sum of Squares, df= degree of freedom, M.S.= Mean Sum of Square

For teacher effectiveness dimension, i.e. “Knowledge of subject-matter etc.”, the F-value is 39.09 ($p < .01$). So, its deduced that resultant regression model predicts teacher effectiveness dimension viz. “Knowledge of subject-matter etc.” of secondary school teachers significantly. Therefore, this model of regression is good fit. So, the analysis via regression is feasible and may be carried forward.

TABLE 3.38
COEFFICIENTS SUMMARY FOR REGRESSION ANALYSIS

DV	IV Predictors	Unstdzd. Coefficients		Stdzd. Coefficients		Sig.	Threshold <5 VIF
		B	Std. Error	Beta	t		
TE d3:	(Constant)	52.274	2.122		24.638	.000	
	AQ	0.056	0.009	0.257	5.941	.000	2.334
	An	-0.051	0.011	-0.228	-5.219	.000	1.727
	CP	0.055	0.010	0.248	5.715	.000	2.683

Note: TE= Teacher effectiveness, d= Dimension, KSM= Knowledge of Subject-matter; AQ= Adversity Quotient; An= Alienation; CP= Change Proneness

Analysis by regression also reveals that adversity quotient, alienation, change proneness significantly and positively predict teacher effectiveness dimension i.e. “Knowledge of subject-matter etc.” of secondary school teachers. It’s evident via table no. 3.38 that for adversity quotient, B is 0.056 and t is 5.941, $p < 0.05$; for alienation, the value of B is -0.051 and t is -5.219, $p < 0.05$ and for change proneness, the value of B is 0.055 and t is 5.715, $p < 0.05$ and are found statistically significant.

The teacher effectiveness dimension viz. “Knowledge of subject-matter etc.” is significantly predicted by adversity quotient, alienation, change proneness of secondary school teachers. The highest contributor is adversity quotient followed by change proneness then alienation

So, the regression equation formulated is, *‘Knowledge of Subject-matter etc. = 52.274 + 0.056*Adversity Quotient+ (-0.051)*Alienation+ 0.055*Change Proneness’*. Henceforth, the findings lead to conclude that higher the adversity

quotient, alienation, change proneness of secondary school teachers, higher will be the teacher effectiveness dimension i.e. “Knowledge of subject-matter etc.”

Hence, it can be pointed out that with the ascend of adversity quotient, alienation and change proneness, the teacher effectiveness dimension viz. “Knowledge of subject-matter etc.” also ascends. The predictive role of independent variables on the teacher characteristics (dependent variable) has been unfolded in the next section in a detailed manner.

- *The predictive role of independent variables on the teacher characteristics (dependent variable) is unfolded below:*

TABLE 3.39
REGRESSION ANALYSIS SUMMARY BETWEEN ADVERSITY QUOTIENT, ALIENATION, CHANGE PRONENESS (INDEPENDENT VARIABLES) AND TEACHER CHARACTERISTICS (DEPENDENT VARIABLE)

DEPENDENT VARIABLE	I.V. (Predictors)	R	R Square	S.E.E.
T.E. DIMENSION 4: T.C.	(Constant) A.Q., An., C.P.	.418 ^a	0.174	4.080

Note: I.V.= Independent variable; T.E.= Teacher effectiveness; T.C.= “Teacher characteristics; An.= Alienation; C.P.= Change proneness; S.E.E.= Standard error of estimation

The values documented in table 3.39 reflect teacher effectiveness dimension viz. teacher characteristics as dependent variable and adversity quotient, alienation and change proneness as predictors. The value of R i.e. multiple correlation is .418 and R² i.e. coefficient of determination is 0.174.

So, this leads to the discovery that adversity quotient, alienation and change proneness can account for 17.4% of the variation in the teacher effectiveness dimension viz. teacher characteristics.

TABLE 3.40
SUMMARY OF ANOVA FOR REGRESSION ANALYSIS

DEPENDENT VARIABLE	MODEL	S.S.	df	M.S.	F	Sig.
T.E. DIMENSION 4: T.C.	Regression	1743.921	3	581.307	34.921	.000 ^b
	Residual	8256.591	496	16.646		
	Total	10000.512	499			

Note: T.E.= Teacher effectiveness; T.C.= “Teacher characteristics”; S.S.= Sum of Squares, df= degree of freedom, M.S.= Mean Sum of Square

For teacher effectiveness dimension, viz. teacher characteristics, the F-value is 34.92 ($p < .01$). Thus, its deduced that resultant regression model predicts teacher effectiveness dimension viz. teacher characteristics of secondary school teachers significantly. Therefore, this model of regression is good fit. So, the analysis via regression is feasible and may be carried forward.

TABLE 3.41
COEFFICIENTS SUMMARY FOR REGRESSION ANALYSIS

DV	IV (Predictors)	Unstdzd. Coefficients		Stdzd. Coefficients		Sig.	Threshold <5
		B	Std. Error	Beta	t		
TE d4: TC	(Constant)	134.104	4.513		29.717	.000	
	AQ	0.154	0.021	0.212	4.334	.000	2.334
	An	-0.191	0.023	-0.283	-4.248	.000	1.727
	CP	0.185	0.022	0.271	4.920	.000	2.683

Note: TE= Teacher effectiveness, d= Dimension, TC= “teacher characteristics”; AQ= Adversity Quotient; An= Alienation; CP= Change Proneness

Table 3.41 displays the regression analysis revealing that adversity quotient, alienation, change proneness have significantly and positive role on teacher effectiveness dimension i.e. teacher characteristics. For adversity quotient, the value of B is 0.154 and t is 4.334, $p < 0.05$; for alienation, the value of B is -0.191 and t is -4.248, $p < 0.05$ and for change proneness, the value of B is 0.185 and t is 4.920, $p < 0.05$. These resultant values are found statistically significant, i.e. adversity quotient, alienation, change proneness are significant predictors of secondary school

teachers' teacher effectiveness dimension viz. teacher characteristics. The better role is played by alienation followed by change proneness then adversity quotient.

The regression equation therefore formed is, '*Teacher Characteristics*= $134.104 + 0.154 * \text{Adversity Quotient} + (-0.191) * \text{Alienation} + 0.185 * \text{Change Proneness}$ '. It concludes that higher the adversity quotient, alienation, change proneness of secondary school teachers, higher will be the teacher characteristics dimension of teacher effectiveness.

- *The detailed account of the dependence of Interpersonal relations by the predictor variables is reported in the following section:*

TABLE 3.42 REGRESSION ANALYSIS SUMMARY OF DIMENSION-WISE PREDICTION ON “INTERPERSONAL RELATIONS” (DEPENDENT VARIABLE)

DEPENDENT VARIABLE	I.V. (Predictors)	R	R Square	S.E.E.
T.E. DIMENSION 5: I.R.	(Constant) A.Q., An., C.P.	.455 ^a	0.207	2.809

Note: I.V.= Independent variable; T.E.= Teacher effectiveness; I.R.= “Interpersonal relations”; A.Q.= Adversity quotient; An.= Alienation; C.P.= Change proneness; S.E.E.= Standard error of estimation

For adversity quotient, alienation and change proneness as predictor variables and teacher effectiveness dimension viz. interpersonal relations” as dependent variable, the value of R i.e. multiple correlation is .455 and R² i.e. coefficient of determination is 0.207. So, it can be documented that adversity quotient, alienation and change proneness can account for 20.7% of the variation in the teacher effectiveness dimension viz. interpersonal relations.

TABLE 3.43 SUMMARY OF ANOVA FOR REGRESSION ANALYSIS

DEPENDENT VARIABLE	MODEL	S.S.	df	M.S.	F	Sig.
T.E. DIMENSION 5: I.R.	Regression	1022.900	3	340.967	43.201	.000 ^b
	Residual	3914.722	496	7.893		
	Total	4937.622	499			

Note: T.E.= Teacher effectiveness; I.R.= “Interpersonal relations”; S.S.= Sum of Squares, df= degree of freedom, M.S.= Mean Sum of Square

For teacher effectiveness dimension, “Interpersonal relations”, the F-value is 43.201 ($p < .01$). Therefore, its deduced that resultant regression model predicts teacher effectiveness dimension viz. interpersonal relations significantly. Therefore, this model of regression is good fit. So, the analysis via regression is feasible and may be carried forward.

TABLE 3.44
COEFFICIENTS SUMMARY FOR REGRESSION ANALYSIS

DV	IV (Predictors)	Unstdzd. Coefficients		Stdzd. Coefficients		Sig.	(Threshold <5) VIF
		B	Std. Error	Beta	t		
TE d5:	(Constant)	90.084	3.107		28.990	.000	
IR	AQ	0.107	0.015	0.211	5.293	.000	2.334
	An	-0.158	0.014	-0.349	-9.218	.000	1.727
	CP	0.116	0.016	0.232	5.851	.000	2.683

Note: TE= Teacher effectiveness, d= Dimension; AQ= Adversity Quotient; An= Alienation; CP= Change Proneness

Analysis by regression method discloses that adversity quotient, alienation, change proneness significantly and positively predict teacher effectiveness dimension i.e. interpersonal relations. Its crystal clear via table no. 3.44 that for adversity quotient, B is 0.107 and t is 5.293, $p < 0.05$; for alienation, the value of B is -0.158 and t is -9.218, $p < 0.05$ and for change proneness, the value of B is 0.116 and t is 5.851, $p < 0.05$ and they are found statistically significant. Thus, adversity quotient, alienation, change proneness are significant predictors of teacher effectiveness dimension viz. interpersonal relations. The highest associative role is of alienation followed by change proneness then adversity quotient.

Formulated regression equation from all variables is, ‘*Interpersonal Relations* = $90.084 + 0.107 * \text{Adversity Quotient} + (-0.158) * \text{Alienation} + 0.116 * \text{Change Proneness}$ ’. It unfolds that lower the adversity quotient, alienation, change proneness of secondary school teachers, lower will be the “Interpersonal relations” dimension of teacher effectiveness. So, it can be deduced that when adversity quotient, alienation and change proneness increase, the teacher effectiveness dimension viz. interpersonal relations increase as well.

Hence, in the light of the calculated results with respect to teacher effectiveness dimensions, the set hypothesis H0_{III}, i.e. “Adversity quotient, alienation, change proneness play no significant role on teacher effectiveness of teachers” stands unaccepted. So, it can be deduced that when adversity quotient, alienation and change proneness increase, the teacher effectiveness dimensions also ascend mildly.

3.5.1.2 DIMENSION-WISE ROLE OF INDEPENDENT VARIABLES ON THE DEPENDENT VARIABLE TEACHER EFFECTIVENESS AND ITS DIMENSIONS.

Dimension-wise multicollinearity of the independent variables was checked before carrying out regression analysis. The variance inflation factor (VIF) value of control is 1.649, ownership and endurance is 1.195, reach is 1.897, work alienation is 1.820, social alienation is 1.048, cultural estrangement is 1.868 and change proneness is 2.675. Some studies reveal that the VIF value less than 10 is acceptable (Hair et al., 1995) whereas other studies disclose that the limit value of VIF is 5 at maximum (Ringle et al., 2015). The resultant VIF value of the independent variables is less than the threshold value. Henceforth, regression analysis can be carried out. For fitting the model for predicting the role of adversity quotient, alienation and change proneness on the teacher effectiveness dimensions, comprehensive details of the regression model fit and its validity has been presented in the following tables. First and foremost, details are of dimension-wise role played by the predictor variables on the dependent variable teacher effectiveness.

- *Below are the details on dimension-wise role played by the predictor variables on the dependent variable teacher effectiveness:*

TABLE 3.45
REGRESSION ANALYSIS OF DIMENSION-WISE PREDICTION ON
TEACHER EFFECTIVENESS (DEPENDENT VARIABLE)

DV	IV and Dimensions	R	R Square	S.E.E.
TE	(Constant) C, OE, R, WA, SI, CE, CP	.557 ^a	0.311 0.311	7.428 2786

Note: T.E.= Teacher effectiveness; IV= Independent variable; a-Predictors: (Constant), C, OE, R, WA, SI, CE, CP; C= Control, OE= Ownership and Endurance, R=Reach; WA= Work Alienation, SI= Social Isolation, CE= Cultural Estrangement; CP= Change Proneness

The above table 3.45 of regression analysis provides the value R and R² for the model that has been derived. For teacher effectiveness as dependent variable and independent predictors i.e. control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement and change proneness, the value of R is .557 and the value of R² is 0.311. This predicts that control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement and change proneness can account variation of 31.1% in the teacher effectiveness scores.

TABLE 3.46

SUMMARY OF ANOVA FOR REGRESSION ANALYSIS

DEPENDENT VARIABLE	MODEL	S.S.	df	M.S.	F	Sig.
TE	Regression	13260.271	7	1894.324	35.265	.000 ^b
	Residual	26428.567	492	53.717		
	Total	39688.838	499			

Note: Dependent variable: T.E.= Teacher effectiveness; S.S.= Sum of Squares, df= degree of freedom, M.S.= Mean Sum of Square

Table 3.46 reveals that for dependent variable teacher effectiveness and control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement, change proneness as predictors, the F-value is 35.265 (p<.01). Hence, its deduced that resultant regression model is better predictor (significant) of teacher effectiveness of secondary school teachers. So, the analysis via regression is feasible and may be carried forward.

TABLE 3.47 CO-EFFICIENT SUMMARY FOR REGRESSION ANALYSIS

DV	IV Dimensions	Unstdzd. Co-efficients		Stdzd. Co-efficients	t	Sig.	Threshold < 5
		B	Std. Error	Beta			VIF
TE	(Constant)	469.663	8.215		57.169	.000	
	C	0.191	0.087	0.189	3.054	.000	1.649
	OE	0.147	0.093	0.102	2.639	.009	1.195
	R	0.355	0.129	0.203	3.536	.000	1.897
	WA	-0.305	0.080	-0.216	-3.800	.000	1.820
	SI	-0.180	0.062	-0.154	-2.920	.001	1.048
	CE	-0.622	0.171	-0.220	-5.213	.000	1.868
	CP	0.259	0.060	0.262	3.933	.000	2.675

Note: T.E.= Teacher effectiveness; C= Control, OE= Ownership and Endurance, R=Reach, WA= Work Alienation, SI= Social Isolation, CE= Cultural Estrangement, CP=Change Proneness

Control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement, change proneness have significant role on teacher effectiveness via regression analysis. Table 3.47 discloses for control, the value of B is 0.191 and t is 3.054, $p < 0.05$; for ownership and endurance, the value of B is 0.147 and t is 2.639, $p < 0.05$; for reach, the value of B is 0.355 and t is 3.536, $p < 0.05$; work alienation, the value of B is -0.305 and t is -3.800, $p < 0.05$, for social isolation, the value of B is -0.180 and t is -2.920, $p < 0.05$, for cultural estrangement, the value of B is -0.622 and t is -5.213, $p < 0.05$; for change proneness, the value of B is 0.259 and t is 3.933, $p < 0.05$ and they are respectively found statistically significant, i.e. control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement, change proneness have significant role on teacher effectiveness.

Regression equation formulated from all variables is '*Teacher Effectiveness* = $469.663 + 0.191 * C + 0.147 * OE + 0.355 * R + (-0.305) * WA + (-0.180) * SI + (-0.622) * CE + 0.259 * CP$ '. It is pointing out that the highest contribution is of cultural estrangement and the lowest contribution is of ownership and endurance on teacher effectiveness. So, it can be concluded that with the increase of control, ownership and endurance, reach, change proneness, the performance of teacher effectiveness of teachers also increases and vice-versa for work alienation, social isolation, cultural estrangement. The dimension-wise role played by the predictor variables on preparation for teaching and planning is reported in the next section in detail.

- *The dimension-wise role played by the predictor variables on preparation for teaching and planning is reported below:*

The regression analysis provided by data analysis in table 3.48 portrays the summary of the model. For teacher effectiveness dimension, viz. "Preparation for teaching and planning" as dependent variable and independent predictors i.e. control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement, change proneness, the value of multiple correlation (R) is .346 and the value of coefficient of determination (R^2) is 0.120. So, it is unfolded that control, ownership and endurance, reach, work alienation, social isolation, cultural

estrangement, change proneness can account variation of 12% in the “Preparation for teaching and planning” dimension of teacher effectiveness.

TABLE 3.48
REGRESSION ANALYSIS OF DIMENSION-WISE PREDICTION ON
“PREPARATION FOR TEACHING AND PLANNING”

DV	IV and Dimensions	R	R Square	S.E.E.
T.E. DIMENSION 1: P.T.P.	(Constant) C, OE, R, WA, SI, CE, CP	.346 ^a	0.120	1.964

Note: T.E.= Teacher effectiveness, PTP= Preparation for teaching and planning; IV= Predictors: (Constant), C, OE, R, WA, SI, CE, CP; Ctrl= Control, OE= Ownership and Endurance, R=Reach; WA= Work Alienation, SI= Social Isolation, CE= Cultural Estrangement; CP= Change Proneness

The table 3.49 reveals that for dependent variable “Preparation for teaching and planning”, and control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement, change proneness as predictors, the F-value is 22.493 ($p < .01$). Hence, its deduced that resultant regression model is better predictor (significant) of “Preparation for teaching and planning” of secondary school teachers. So, the analysis via regression is feasible and may be done.

TABLE 3.49 SUMMARY OF ANOVA FOR REGRESSION ANALYSIS

DEPENDENT VARIABLE	MODEL	S.S.	df	M.S.	F	Sig.
T.E. DIMENSION 1: P.T.P.	Regression	1112.74	7	158.963	20.448	.000 ^b
	Residual	3824.882	492	7.774		
	Total	4937.622	499			

Note: T.E.= Teacher effectiveness; P.T.P.= Preparation for teaching and planning; S.S.= Sum of Squares, df= degree of freedom, M.S.= Mean Sum of Square

Regression analysis revealed for adversity quotient dimensions viz. control, ownership and endurance, reach that they have positive and significant role on teacher effectiveness dimension viz. “Preparation for teaching and planning”. Table 3.50 portrays that for adversity quotient dimension viz. control, the value of B is 0.081 and t is 2.392, $p < 0.05$, adversity quotient dimension viz. ownership and endurance, the value of B is 0.053 and t is 2.165, $p < 0.05$ and for adversity quotient dimension viz. reach, the value of B is 0.119 and t is 3.839, $p < 0.05$, work alienation, the value of B is

-0.101 and t is -2.222, p<0.05, for social isolation, the value of B is -0.055 and t is -2.990, p<0.05 and for cultural estrangement, the value of B is -0.209 and t is -6.348, p<0.05; for change proneness, the value of 0.058 and t is 3.046, p<0.05 and are found statistically significant. The adversity quotient dimensions viz. control, ownership and endurance, reach; change proneness have significant positive role and alienation dimensions i.e. work alienation, social isolation, cultural estrangement have negative and significant role on teacher effectiveness dimension viz. “Preparation for teaching and planning” of secondary school teachers.

TABLE 3.50 CO-EFFICIENT SUMMARY FOR REGRESSION ANALYSIS

DV	IV Dimensions	Unstdzd. Co-efficients		Stdzd. Co-efficients	t	Sig.	Threshold < 5
		B	Std. Error	Beta			VIF
TE d1: PTP	(Constant)	86.133	2.157		39.934	.000	
	C	0.081	0.034	0.156	2.392	.017	1.649
	OE	0.053	0.025	0.095	2.165	.031	1.195
	R	0.119	0.031	0.228	3.839	.000	1.897
	WA	-0.101	0.045	-0.132	-2.222	.027	1.820
	SI	-0.055	0.021	-0.193	-2.990	.003	1.048
	CE	-0.209	0.033	-0.274	-6.348	.000	1.868
	CP	0.058	0.010	0.259	3.046	.000	2.675

Note: Te d1= Teacher effectiveness dimension no. 1; PTP= “preparation for teaching and planning; C= Control, OE= Ownership and Endurance, R=Reach; WA= Work Alienation, SI= Social Isolation, CE= Cultural Estrangement; CP= Change Proneness

Formulated regression equation therefore from all variables is, ‘*Preparation for Teaching and Planning*= 86.133+ 0.081*C+ 0.053*OE+ 0.119*R+ (-0.101)*WA+ (-0.055)*SI+ (-0.209)*CE+ 0.058*CP’. It is unfolded that the highest contribution is of cultural estrangement and the lowest contribution is of ownership and endurance on “Preparation for teaching and planning”. So, it can be summarized that with the decrease of “Control, Ownership and Endurance, Reach” and change proneness, the performance of “Preparation for teaching and planning” of teachers also decreases and inverse scenario is true for work alienation, social isolation, cultural estrangement.

- *The dependence of classroom management by the predictor variables dimension*

TABLE 3.51
REGRESSION ANALYSIS OF DIMENSION-WISE PREDICTION ON
CLASSROOM MANAGEMENT

DV	IV and Dimensions	R	R Square	S.E.E.
TE d2: CM	(Constant) C, OE, R, WA, SI, CE, CP	.242 ^a	0.059	2.204

Note: Te d2= Teacher effectiveness dimension no. 2; CM= “classroom management; IV= Predictors: (Constant), C, OE, R, WA, SI, CE, CP; C= Control, OE= Ownership and Endurance, R=Reach; WA= Work Alienation, SI= Social Isolation, CE= Cultural Estrangement; CP= Change Proneness

A perusal of table 3.51 reveals for teacher effectiveness dimension i.e. “Classroom management” as dependent variable and individual independent predictors i.e. control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement, change proneness, the value of R i.e. multiple correlation is .242 and the value of R² i.e. coefficient of determination is 0.059. So, it is reported that control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement, change proneness account a variation of 5.9% respectively in the teacher effectiveness dimension viz. “Classroom management” scores.

TABLE 3.52
SUMMARY OF ANOVA FOR REGRESSION ANALYSIS

DEPENDENT VARIABLE	MODEL	S.S.	df	M.S.	F	Sig.
T.E. DIMENSION 2: C.M.	Regression	384.715	7	54.959	16.942	.000 ^b
	Residual	1596.043	492	3.244		
	Total	1980.758	499			

Note: T.E.= Teacher effectiveness; C.M.= “Classroom management”; S.S.= Sum of Squares, df= degree of freedom, M.S.= Mean Sum of Square

It has been disclosed by table 3.52 that for dependent variable classroom management and independent variable and control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement, change proneness as predictors, the F-value is 10.314 (p<.01). Hence, its deduced that resultant regression

model is better predictor (significant) of classroom management. So, the analysis via regression is feasible and may be carried.

TABLE 3.53
CO-EFFICIENT SUMMARY FOR REGRESSION ANALYSIS

DV	IV Dimensions	Unstdzd. Co-efficients		Stdzd. Co-efficients	t	Sig.	Threshold < 5
		B	Std. Error	Beta			VIF
TE d2: CM	(Constant)	109.200	2.369		46.097	.000	
	C	0.051	0.025	0.097	2.184	.041	1.649
	OE	0.098	0.038	0.173	2.562	.011	1.195
	R	0.120	0.034	0.212	3.552	.017	1.897
	WA	-0.109	0.037	-0.130	-2.934	.001	1.820
	SI	-0.050	0.010	-0.162	-2.717	.004	1.868
	CE	-0.063	0.018	-0.212	-3.422	.000	1.048
	CP	0.052	0.011	0.213	3.996	.000	2.675

Note: Te d2= Teacher effectiveness dimension no. 2; CM= “classroom management”; C= Control, OE= Ownership and Endurance, R=Reach; WA= Work Alienation, SI= Social Isolation, CE= Cultural Estrangement; CP= Change Proneness

The table 3.53 displays the regression analysis and it reveals that adversity quotient dimensions viz. control, ownership and endurance, reach have positive and significant role on teacher effectiveness dimension viz. classroom management”.

The Table 3.53 insinuates for adversity quotient dimension viz. control, the value of B is 0.051 and t is 2.184, $p < 0.05$, adversity quotient dimension viz. ownership and endurance, the value of B is 0.098 and t is 2.562, $p < 0.05$, for adversity quotient dimension viz. reach, the value of B is 0.120 and t is 3.552, $p < 0.05$.

Also, for work alienation, the value of B is -0.109 and t is -2.934, $p < 0.05$; for social isolation, the value of B is -0.050 and t is -2.717, $p < 0.05$ and for cultural estrangement, the value of B is -0.063 and t is -3.422, $p < 0.05$.

At last for change proneness, the value of B is 0.052 and t is 3.996, $p < 0.05$ and they are found statistically significant. These values are statistically significant respectively. This means that adversity quotient dimensions viz. control, ownership and endurance, reach; change proneness have significant positive role and alienation

dimensions i.e. work alienation, social isolation, cultural estrangement have negative significant role on secondary school teachers' teacher effectiveness dimension viz. classroom management.

So, regression equation formulated from all variables is, '*Classroom Management*= 109.200+ 0.055*C+ 0.098*OE+ 0.120*R+ (-0.109)*WA+ (-0.050)*SI+ (-0.063)*CE+ 0.052*CP'.

It is pointing out that the highest contribution is of reach and the lowest contribution is of social isolation on classroom management. These findings lead to conclude that high adversity quotient dimensions viz. control, ownership and endurance, reach; change proneness lead secondary school teachers towards high teacher effectiveness dimension viz. classroom management and vice-versa for alienation dimensions i.e. work alienation, social isolation, cultural estrangement.

The detailed summary of the dependence of "Knowledge of subject-matter etc." viz. teacher effectiveness dimension by the predictor variables dimension-wise is documented in the next section displaying table for regression analysis, table for ANOVA summary and table for co-efficient for the regression analysis. The detailed description of the same has also been presented along with the regression equation formed as a result of the analysis in the next section.

- *The detailed account of the dependence of "Knowledge of subject-matter etc." by the predictor variables dimension-wise is reported below:*

For teacher effectiveness dimension i.e. "Knowledge of subject-matter etc." as dependent variable and individual independent predictors i.e. control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement, change proneness, the value of multiple correlation (R) is .267 and the value of coefficient of determination (R²) is 0.071 as displayed in table 3.54. Therefore, it is disclosed that control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement, change proneness, can account variation of 7.1% in the teacher effectiveness dimension viz. "Knowledge of subject-matter etc." scores.

TABLE 3.54
REGRESSION ANALYSIS SUMMARY OF DIMENSION-WISE
PREDICTION ON “KNOWLEDGE OF SUBJECT-MATTER ETC.”

DV	IV and Dimensions	R	R Square	S.E.E.
TE d3: KSM	(Constant) C, OE, R, WA, SI, CE, CP	.267 ^a	0.071	1.987

Note: Te d3= Teacher effectiveness dimension no. 3; KSM= Knowledge of Subject-matter; IV= Predictors: (Constant), C, OE, R, WA, SI, CE, CP; C= Control, OE= Ownership and Endurance, R=Reach; WA= Work Alienation, SI= Social Isolation, CE= Cultural Estrangement; CP= Change Proneness

Revelations by table 3.55 point out that for dependent variable “Knowledge of subject-matter etc.”, and independent variables as control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement, change proneness, the F-value is 17.414 ($p < .01$). Hence, its deduced that resultant regression model is better predictor (significant) of “Knowledge of subject-matter etc.” of secondary school teachers. So, the analysis via regression is feasible and may be carried forward.

TABLE 3.55
SUMMARY OF ANOVA FOR REGRESSION ANALYSIS

DEPENDENT VARIABLE	MODEL	S.S.	df	M.S.	F	Sig.
T.E. DIMENSION 3: K.S.M.	Regression	1985.712	7	283.673	17.414	.000 ^b
	Residual	8014.8	492	16.29		
	Total	10000.512	499			

Note: T.E.= Teacher effectiveness, K.S.M.= Knowledge of Subject-matter; S.S.= Sum of Squares, df= degree of freedom, M.S.= Mean Sum of Square

Regression analysis reveals that adversity quotient dimensions i.e. control, ownership and endurance, reach have positive and significant role on teacher effectiveness dimension i.e. “Knowledge of subject matter etc.” Table 3.56 discloses for adversity quotient dimension i.e. control, the value of B is 0.166 and t is 5.194, $p < 0.05$; adversity quotient dimension i.e. ownership and endurance, the value of B is 0.085 and t is 3.752, $p < 0.05$, for adversity quotient dimension i.e. reach, the value of B is 0.033 and t is 2.214, $p < 0.05$, for alienation dimensions i.e. work alienation, the value of B is -0.079 and t is -5.757, $p < 0.05$; for social isolation, the value of B is -

0.031 and t is -2.815, $p < 0.05$ and for cultural estrangement, the value of B is -0.073 and t is -4.840, $p < 0.05$; for change proneness, the value of B is 0.050 and t is 3.983, $p < 0.05$ and they are respectively found statistically significant. Therefore, control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement, change proneness have significant role on teacher effectiveness dimension i.e. knowledge of subject etc. of secondary school teachers.

TABLE 3.56
CO-EFFICIENT SUMMARY FOR REGRESSION ANALYSIS

DV	IV Dimensions	Unstdzd. Co-efficients		Stdzd. Co-efficients	t	Sig.	Threshold < 5
		B	Std. Error	Beta			VIF
TE d3: KSM	(Constant)	53.826	2.182		24.665	.000	
	C	0.166	0.032	0.227	5.194	.000	1.649
	OE	0.085	0.041	0.068	3.752	.000	1.195
	R	0.033	0.012	0.125	2.214	.015	1.897
	WA	-0.079	0.014	-0.250	-5.757	.000	1.820
	SI	-0.031	0.014	-0.144	-2.185	.029	1.868
	CE	-0.073	0.019	-0.170	-4.840	.000	1.048
	CP	0.050	0.010	0.226	3.983	.000	2.675

Note: Te d3= Teacher effectiveness dimension no. 3; KSM= Knowledge of Subject-matter; C= Control, OE= Ownership and Endurance, R= Reach; WA= Work Alienation, SI= Social Isolation, CE= Cultural Estrangement; CP= Change Proneness

Thus, the regression equation formed is, '*Knowledge of Subject-matter etc.* = $53.826 + 0.166 * C + 0.085 * OE + 0.033 * R + (-0.079) * WA + (-0.031) * SI + (-0.073) * CE + 0.050 * CP$ '. These results point out that highest contribution is of control and the lowest contribution is of social isolation on knowledge of subject etc. Therefore, it may be summarized that with the increase of control, ownership and endurance, reach, change proneness performance of teacher effectiveness dimension viz. knowledge of subject etc. of teachers also increases and vice-versa for work alienation, social isolation, cultural estrangement.

- *The role of predictor variables dimension-wise on the dependent variable teacher characteristics is disclosed below:*

TABLE 3.57
REGRESSION ANALYSIS OF DIMENSION-WISE PREDICTION ON
TEACHER CHARACTERISTICS (DEPENDENT VARIABLE)

DV	IV and Dimensions	R	R Square	S.E.E.
TE d4: TC	(Constant) C, OE, R, WA, SI, CE, CP	.413 ^a	0.170	4.088

Note: Te d4= Teacher effectiveness dimension no. 4; TC= “teacher characteristics”; IV= Predictors: (Constant), C, OE, R, WA, SI, CE, CP; C= Control, OE= Ownership and Endurance, R= Reach; WA= Work Alienation, SI= Social Isolation, CE= Cultural Estrangement; CP= Change Proneness

It has also been discovered from the above table 3.57 that teacher effectiveness dimension i.e. teacher characteristics as dependent variable and individual independent predictors i.e. control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement, change proneness, the value of R is .413 and the value of R² is 0.170.

So, it is disclosed that control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement, change proneness can account variation of 17% in the teacher characteristics dimension of teacher effectiveness.

TABLE 3.58
SUMMARY OF ANOVA FOR REGRESSION ANALYSIS

DEPENDENT VARIABLE	MODEL	S.S.	df	M.S.	F	Sig.
T.E. DIMENSION 4: T.C.	Regression	2609.774	7	372.825	24.819	.000 ^b
	Residual	7390.738	492	15.022		
	Total	10000.512	499			

Note: T.E.= Teacher effectiveness; T.C.= “Teacher characteristics”; S.S.= Sum of Squares, df= degree of freedom, M.S.= Mean Sum of Square

Table 3.58 reveals that for dependent variable teacher characteristics and independent variables as control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement, change proneness as predictors, the F-value is 24.646 (p<.01). Hence, its deduced that resultant regression model is better predictor

(significant) of teacher characteristics. So, the analysis via regression is feasible and may be done.

TABLE 3.59
CO-EFFICIENT SUMMARY FOR REGRESSION ANALYSIS

DV	IV Dimensions	Unstdzd. Co-efficients		Stdzd. Co-efficients	t	Sig.	Threshold < 5
		B	Std. Error	Beta			VIF
TE d4: TC	(Constant)	134.848	4.502		29.955	.000	
	C	0.126	0.053	0.131	2.361	.019	1.649
	OE	0.179	0.027	0.305	2.958	.000	1.195
	R	0.159	0.071	0.141	2.241	.013	1.897
	WA	-0.258	0.030	-0.364	-4.716	.000	1.820
	SI	-0.033	0.012	-0.125	-2.014	.101	1.048
	CE	-0.364	0.094	-0.421	-5.740	.000	1.868
	CP	0.180	0.021	0.364	3.073	.000	2.675

Note: TE d4= Teacher effectiveness dimension no. 4; TC= “teacher characteristics; C= Control, OE= Ownership and Endurance, R=Reach; WA= Work Alienation, SI= Social Isolation, CE= Cultural Estrangement; CP= Change Proneness

The table 3.59 unfolds by regression analysis that adversity quotient dimensions i.e. control, ownership and endurance, reach have positive and significant role on teacher effectiveness dimension i.e. teacher characteristics. Table 3.59 discloses that for adversity quotient dimension viz. control, the value of B is 0.126 and t is 2.361, $p < 0.05$; adversity quotient dimension viz. ownership and endurance, the value of B is 0.179 and t is 2.958, $p < 0.05$ and for adversity quotient dimension viz. reach, the value of B is 0.159 and t is 2.241, $p < 0.05$, for alienation dimension i.e. work alienation, the value of B is -0.258 and t is -4.716, $p < 0.05$; alienation dimension i.e. social isolation, the value of B is -0.033 and t is -2.014, $p > 0.05$ and for alienation dimension i.e. cultural estrangement, the value of B is -0.364 and t is -5.740, $p < 0.05$; for change proneness, the value of B is 0.180 and t is 3.073, $p < 0.05$. They all are respectively significant statistically except social isolation. So, control, ownership and endurance, reach, work alienation, cultural estrangement, change proneness have significant role on teacher effectiveness dimension i.e. teacher characteristics.

The highest contribution is of Cultural estrangement and negligible contribution

is of social isolation (insignificant) on teacher characteristics. Therefore, the regression equation formed is, $Teacher\ Characteristics = 134.848 + 0.126 * C + 0.179 * OE + 0.159 * R + (-0.258) * WA + (-0.364) * CE + 0.180 * CP$. Hence, low control, ownership and endurance, reach, change proneness lead secondary school teachers towards low teacher characteristics dimension of teacher effectiveness and inverse scenario is true in the case of work alienation and social isolation.

- *The dimension-wise predictive role of independent variables on the interpersonal relations (dependent variable) is unfolded below:*

TABLE 3.60
REGRESSION ANALYSIS OF DIMENSION-WISE PREDICTION ON INTERPERSONAL RELATIONS (DEPENDENT VARIABLE)

DV	IV and Dimensions	R	R Square	S.E.E.
TE d5: IR	(Constant) C, OE, R, WA, SI, CE, CP	.448 ^a	0.201	2.828

Note: TE d5= Teacher effectiveness dimension no. 5; IR= “interpersonal relations”; IV= Predictors: (Constant), C, OE, R, WA, SI, CE, CP; C= Control, OE= Ownership and Endurance, R= Reach; WA= Work Alienation, SI= Social Isolation, CE= Cultural Estrangement; CP= Change Proneness

For individual independent predictors, i.e. control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement, change proneness and teacher effectiveness dimension viz. interpersonal relations as dependent variable, the value of multiple correlation (R) is .448 and the value of coefficient of determination (R^2) is 0.201. So, it is insinuated that control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement, change proneness can account variation of 20.1% in the interpersonal relations dimension of teacher effectiveness.

TABLE 3.61
SUMMARY OF ANOVA FOR REGRESSION ANALYSIS

DEPENDENT VARIABLE	MODEL	S.S.	df	M.S.	F	Sig.
T.E. DIMENSION 5: I.R.	Regression	853.215	7	121.888	35.281	.000 ^b
	Residual	1699.735	492	3.455		
	Total	2552.95	499			

Note: T.E.= Teacher effectiveness; I.R.= “Interpersonal relations”; S.S.= Sum of Squares, df= degree of freedom, M.S.= Mean Sum of Square

Table 3.61 reveals that for dependent variable interpersonal relations and predictors as and control, ownership and endurance, reach, work alienation, social isolation, cultural estrangement, change proneness as predictors, the F-value is 35.281 ($p < .01$). So, its deduced that resultant regression model is better predictor (significant) of interpersonal relations. So, the analysis via regression is feasible and may be carried.

TABLE 3.62
CO-EFFICIENT SUMMARY FOR REGRESSION ANALYSIS

DV	IV Dimensions	Unstdzd. Co-efficients		Stdzd. Co-efficients	t	Sig.	Threshold < 5
		B	Std. Error	Beta			VIF
TE d5: IR	(Constant)	90.886	3.113		29.192	.000	
	C	0.102	0.019	0.148	3.279	.013	1.649
	OE	0.110	0.026	0.265	3.815	.001	1.195
	R	0.170	0.047	0.215	4.641	.000	1.897
	WA	-0.402	0.049	-0.447	-8.255	.000	1.820
	SI	-0.152	0.035	-0.178	-4.329	.000	1.048
	CE	-0.201	0.020	-0.303	-5.820	.000	1.868
	CP	0.111	0.015	0.218	3.988	.000	2.675

Note: TE d5= Teacher effectiveness dimension no. 5; IR= “interpersonal relations”; C= Control, OE= Ownership and Endurance, R=Reach; WA= Work Alienation, SI= Social Isolation, CE= Cultural Estrangement; CP= Change Proneness

The regression analysis discloses that adversity quotient dimensions i.e. control, ownership and endurance, reach have positive and significant role on teacher effectiveness dimension i.e. interpersonal relations. Table 3.62 insinuates for adversity quotient dimension i.e. control, the value of B is 0.102 and t value is 3.279, $p < 0.05$; adversity quotient dimension i.e. ownership and endurance, the value of B is 0.110 and t value is 3.815, $p < 0.05$ and for adversity quotient dimension viz. reach, the value of B is 0.170 and t value is 4.641, $p < 0.05$; alienation dimensions i.e. work alienation, the value of B is -0.402 and t is -8.255, $p < 0.05$; for social isolation, the value of B is -0.152 and t is -4.329, $p < 0.05$ and for cultural estrangement, the value of B is -0.201 and t is 5.820, $p < 0.05$; for change proneness, the value of B is 0.111 and t is 3.988, $p < 0.05$. They are respectively found statistically significant, i.e. adversity quotient dimensions i.e. control, ownership and endurance, reach, change proneness

have significant positive role and alienation dimensions i.e. work alienation, social isolation, cultural estrangement have significant negative role secondary school teachers' teacher effectiveness dimension viz. interpersonal relations.

Regression equation formulated from all variables is, '*Interpersonal Relations* = $90.886 + 0.102 * C + 0.110 * OE + 0.170 * R + (-0.402) * WA + (-0.152) * SI + (-0.201) * CE + 0.111 * CP$ '. It points out that highest contribution is of work alienation and the lowest contribution is of control on interpersonal relations. These results unfold that low control, ownership and endurance, reach, change proneness lead secondary school teachers towards low teacher effectiveness dimension viz. interpersonal relations. The increase of work alienation, social isolation, cultural estrangement, interpersonal relations of secondary school teachers decreases. So, it is unfolded that apart from the insignificant role of alienation dimension viz. social isolation on teacher effectiveness dimension viz. teacher characteristics, the hypothesis H_{0III}, i.e. "Adversity quotient, alienation, change proneness play no significant role on teacher effectiveness of teachers" is overall and dimension-wise not accepted. Hence, it may be inferred that adversity quotient, alienation, change proneness are playing significant role on teacher effectiveness.

DISCUSSION

Regression analysis' findings of the present study infer that the adversity quotient, alienation, change proneness play a moderate significant role on teacher effectiveness of teachers. Therefore, when adversity quotient, alienation and change proneness ascend, the teacher effectiveness of teachers also ascends moderately. They are playing essential role in shaping effectiveness of teachers. Adversity quotient, alienation, change proneness are mild significant predictors of teacher effectiveness dimensions viz. "Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations" of secondary school teachers. Adversity quotient dimensions viz. control, ownership and endurance, reach has a mild significant role on teacher effectiveness and its dimensions. Duckworth (2009) revealed that teaching rigors insinuate that positive traits buffering against the adversities may contribute to teacher effectiveness. Therefore, it can be said that a good adversity quotient and change proneness helps a

teacher in moderation to be a better manager in managing their classroom situations, content of knowledge, organisational skills, teaching planning and preparation, professionalism, personality, judgement, people skills, commitment, wellness, mental health, job performance etc. But, a higher alienation would impact negatively and may degrade the same.

A higher alienation can negatively affect teacher effectiveness in moderation thereby making the teachers feel aloof, estranged and isolated from their work, society, community, culture, school, home etc. They may find meaninglessness and less satisfaction in teaching profession leading to teacher attrition. According to Cochran-Smith (2003), the rate of high attrition of teachers and this phenomenon's subsequent consequences lead to various unresolved problems of alienation in teachers. According to Chauvin (1992), adversity affects teacher effectiveness. Prasad (1996) revealed a significant impact of the alienation on teacher effectiveness. Also, change proneness is positive predictor of "teacher effectiveness" of secondary school teachers (Shrivastava, 2013). Meanwhile, dimensions of alienation i.e. work alienation, social isolation, cultural estrangement have a mild negatively significant role on teacher effectiveness and its dimensions viz. "Preparation for teaching and planning, classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations" of secondary school teachers. Whereas for teacher effectiveness dimension viz. teacher characteristics, alienation dimension viz. social isolation has no significant role. Meanwhile, work alienation as well as cultural estrangement have a significant role on the same. This leads to point out the fact that, when it comes to the teacher characteristics, not much significant impact is exerted by being isolated socially. But, isolation of teachers is widespread (Chandler, 1983; Zielinski & Hoy, 1983). Being alienated at the workplace and also being estranged culturally although mild but significantly does negatively impact the "teacher characteristics" which is one of the factors of teacher effectiveness.

The studies related to the role of adversity quotient, alienation, change proneness on teacher effectiveness have many revelations. Since there are scarce overall direct studies involved in seeking the overall role of adversity quotient, alienation, change proneness on teacher effectiveness so, one has to relate findings of

adversity quotient, alienation, change proneness with certain influencing factors who are also associated to teacher effectiveness as well. This would help in mapping out in parts to form a whole linkage of the role played by “adversity quotient, alienation and change proneness” on teacher effectiveness. Adversity quotient predicts the one who’ll overcome adversities and the one who breaks down; the one exceeding in performance, expectations and potential; the one who would drop short; the one who’ll surrender and the one who’ll triumphs (Stoltz, 1997). According to Medley (1982), skill possession and knowledge possession are part of teacher competence. Using in the classroom these skills and knowledge have been referred to as teacher performance. Therefore, to understand and investigate teacher effectiveness, one is to link teacher performance and teacher competence along with teacher goals accomplishment which is, therefore, teacher effectiveness. Also, according to Kaur (2011), teacher effectiveness is significantly associated with teacher performance of government and private secondary school teachers. The adversity quotient is a predictor of performance (PEAK Learning Inc., 2000). The findings of Malik and Akram (2020) revealed that head teachers’ effectiveness significantly predicts school performance. It explained a 36% variance in their school performance. Bahri and Farizal (2020) revealed that the adversity quotient plays a positive role and a positive predictor of teacher performance. The adversity quotient explained a 43.9% variation in teacher performance of teachers.

A predominant principle of the race towards the peak benchmark is that the states require feasible methods for measuring teacher effectiveness, providing a rating of effectiveness to each teacher and using these ratings for informing the professional development, promotion, compensation, tenure, and dismissal. Marashi and Fotoohi (2017) through regression analysis revealed that EFL teachers’ (introvert and extrovert) adversity quotient has a significant role in their professional development. EFL teachers’ adversity quotient (introvert and extrovert) is a significant predictor of their effective “classroom management” (Marashi & Fotoohi, 2017). “The adversity quotient is the science of resilience in humans” (Stoltz, 1997). For the effectiveness of the teachers, resilience in teachers is a necessary and important condition. By being resilient, the teachers are enabled to sustain, flourish and thrive their effectiveness

(Gu & Day, 2007). According to Scheerens (2004, 2008), interchangeably, the teacher effectiveness and the teaching effectiveness is used. According to Ko et al. (2016), the professional identity of teachers impacts their resilience, relative commitment and managing capacities of these variations for sustaining teachers' effectiveness in teaching. The resilience of teachers and the relative effectiveness of teachers are related (Gu, 2014).

Marashi and Naghibi (2020) disclosed that both extrovert and introvert EFL teachers' adversity quotient is a positive significant predictor of their effective "classroom management". Muranda et al. (2015) revealed that teachers, school heads and parents perceive that teacher effectiveness and teacher motivation are positively associated. Mahmood and Hussain (2017) revealed a significant association between head teachers' effectiveness and teacher empowerment. The credence that a teacher can concurrently attain a high level or no less than above average level of productivity is associated with the teacher's effectiveness in teaching (Feldman, 1987; Marsh & Hattie, 2002). Khodabakhshzadeh et al. (2018) revealed that EFL teachers' effectiveness in teaching and creativity are significantly associated. Zeydel (2015) pointed out that "an effective teacher is the one who is passionate about their subject-matter. Students become fully engaged by their teacher's passion for what they teach. That enthusiasm and high energy spark an interest in the subject by the students". Rice (2003) cited that various studies found a positive effect of learning by doing on teacher effectiveness especially in the initial years of teaching. Eren (2014) via correlation, regression and structural equation modeling analysis revealed that the "Prospective teachers' emotions about teaching, academic optimism, hope, and personal responsibility are significantly linked to each other". According to Roul (2002), in comparison to ineffective teachers, effective teachers have good mental health. Gyeltshen and Beri (2018) revealed that teachers' happiness at the workplace influences as a tool for their teacher effectiveness. Change proneness predicts the teacher effectiveness of the teachers of secondary schools (Shrivastava, 2013). Phoolka and Kaur (2012) disclosed that the adversity quotient predicts motivation, performance, empowerment, productivity, creativity, energy, learning, hope, emotional health, happiness, resilience, response to change, attitude.

Prasad (1996) gave an indication that alienation has a significant impact on teacher effectiveness. It was revealed that in terms of scores, the high effective teachers in terms of alienation and its dimensions have a low degree of alienation and vice-versa. Apart from the findings of Prasad (1996), there are no direct studies related to alienation and teacher effectiveness. Hence, one has to relate the findings of alienation with certain factors that are also related to teacher effectiveness. According to Erbas (2014), the levels of alienation were profound predictors of their levels of attitude towards teaching as a profession. comparatively to teachers having unfavourable attitude and moderate attitude for the teaching profession, favourable attitude teachers have more teachers' effectiveness in teaching (Mangalamma & Vardhini, 2017). There is a negative association between alienation and academic achievement (Bester & Budhal, 2001; Oviawe, 2016). Teacher effectiveness and academic achievement have a strong association (Ezugwu & Ijeoma, 2011). Bester and Budhal (2001) revealed that social isolation is a negative predictor of academic achievement. Social isolation explains a 29% variance in academic achievement.

Dworkin et al. (2003) disclosed that alienation experiences of powerlessness and meaninglessness which were prolonged could decrease the teaching commitment of teachers. This in turn could foster isolation. Experiences of alienation and in terms of meaninglessness and powerlessness in prolongation can decrease the teaching commitment of a teacher (Choi & Tang, 2009). The negative emotions of teachers in teaching are caused by alienation. The loss of teaching commitment leads to feelings of isolation (Tsang, 2016). There is an association (positive and significant) between the "Professional commitment and Teacher effectiveness" of teachers (Jha & Grace, 2018). Also, there is an association (positive) in-between "Professional commitment and Teacher effectiveness" of secondary school teachers (Malik & Sharma, 2013). Many findings revealed that teacher effectiveness has a positive influential relationship with teacher commitment (Rosenholtz, 1989; Martinez-Pong, 1990; Kushnan, 1992; Reyes & Fuller, 1995; Fresko et al., 1997; Singh & Billingsley, 1998). Alienation levels and job satisfaction are related to each other (Pestonjee, 1979). The low job satisfaction results in alienation (Arter, 2017). Job satisfaction and work alienation are related (Arter & Erdil, 2017). There is a positive association

between “Teacher effectiveness and Job satisfaction” (Halder & Roy, 2018). Dhillon (2019) disclosed association (significant and negative) in-between alienation and job satisfaction of the teachers. Also, there is association (significant and negative) in-between teachers’ alienation and self esteem. A positive association exists between “Teacher effectiveness and Self-esteem” of teachers (Ramkrishna & Phogat, 2017). The teachers’ alienation and occupational professionalism levels are significantly related (Yorulmaz et al., 2015). Ostovar-Nameghi and Sheikhahmadi (2016) pointed out in their review of related literature based paper that isolation has negative effects on the professional life of teachers. DSD (2010) discussed in detail in their report namely, “Effective teacher: Professionalism” that professionalism plays an essential role in effective teachers.

According to Shrivastava (2013), in teachers of secondary schools, change proneness is a predictor (positive) of teacher effectiveness. Apart from the findings of Shrivastava (2013), there are not much direct studies linking change proneness and teacher effectiveness. Therefore, the findings of change proneness with certain factors that are also associated with teacher effectiveness have to be studied. Sen and Sood (2016) found that teachers of secondary schools’ change proneness positively influences the self efficacy. According to Garg (2019), self-efficacy level and teacher effectiveness of teachers is positively associated. The teacher’s role efficiency, job satisfaction and change proneness are closely related to one another (Suryanarayana & Luciana, 2010; Bagarti & Mishra, 2012). Also, Suryanarayana and Luciana (2010) revealed that change proneness is a contributing factor for effectiveness in the classroom. The change proneness effects the teacher’s attitude and interest. Dibapile (2012) disclosed through revelations by review of related literature based study that, teacher efficacy aids a teacher to plan effective strategies of instruction, ascends performance and intensifies teacher effectiveness. According to Mangalamma and Vardhini (2017), favourable attitude teachers have more teachers’ effectiveness in teaching. Scheerens (2004, 2008), revealed that, interchangeably, the terms teacher effectiveness and teaching effectiveness are used. Hativa et al. (2001) proposed that among the dimensions of teachers’ teaching effectiveness, interest as amongst one of its four dimensions.

Change proneness has a significant and positive association with teachers' relation with the principal; attitude towards the profession of teaching; teaching satisfaction; principal's perceived leadership behavior; teacher's rapport; urban background and job satisfaction of principals and teachers (Mukhopadhyay and Saxena, 1980). According to Abari et al. (2016), teachers' effectiveness in teaching and principal-teacher relationship (both narrow and wide) have a significant association. Mangalamma and Vardhini (2017) found that as compared to teachers having unfavourable attitude and moderate attitude for the teaching profession, favourable attitude teachers have more teachers' effectiveness in teaching. Malhotra and Bhatia (2019) revealed that the principals' effective leadership behaviour fosters increased teacher effectiveness. According to Haynes & Backell (2011), effective teachers generate positive rapport. Dua (2014) disclosed that the secondary school teachers' teacher effectiveness and urban locality have a significant relationship. Halder and Roy (2018) found association (positive) in-between the teacher effectiveness and the job satisfaction.

Raju (2012) disclosed that the secondary school teachers' change proneness and origin-pawn ideology have a positively significant association. Wikipedia (2011) documented that the teachers' work style discloses the presence of teachers of two types. The first type are the ones who are self-relied, taking risks to originate something new which is termed as the origin. The second type are the ones who are blindly dependant on work with rigid rules in the hands of other people which is termed as pawns. According to Rao (1997), the teachers have acceptance for the origin ideology, would be an effective teacher. Teachers of origin type yield better teachers' effectiveness in school. Change prone teachers of open organizational climate had a positive association with the teacher performance. Teacher effectiveness is significantly related to teacher performance of government and private secondary school teachers (Kaur, 2011). There is association (positive, high and significant) in-between the change proneness and the morale of the college lecturer teachers (Padala, 2014). It was also found that there existed a significant and positive association between intra and inter relationship among the lecturer teachers' change proneness and morale (Padala, 2014). The lecturer teachers' aspects of change proneness and

morale are inter-dependent (Amalorpavamary & Velsamy, 2016). Teachers, school heads and parents perceive that teacher effectiveness and teacher motivation are positively associated (Muranda et al., 2015). There is association (positive and significant) in-between change proneness and teacher motivation (Raju, 2013). Kaur (2011) revealed that teacher effectiveness is significantly related to teacher morale of teachers of secondary schools (government and private).

Change proneness level of secondary school teachers is significant and positive for influencing the professional commitment of the secondary school teachers (Sen and Sood, 2018). A positively significant association exists between the professional commitment and teacher effectiveness of teachers (Malik & Sharma, 2013; Jha & Grace, 2018). Sharma (1971) revealed that the teaching aptitude predicts the teacher effectiveness. One of the characteristics of a change prone teacher is his or her teaching aptitude. According to Shrivastava (2013), apart from change proneness being, in general, a positive predictor of teacher effectiveness of secondary school teachers, change proneness is also a positive predictor of teacher effectiveness of male teachers, female teachers, rural teachers, non-science teachers and average experienced urban teachers.

CHAPTER IV

CONCLUSIONS, IMPLICATIONS, RECOMMENDATIONS, LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The present chapter after the data analysis and interpretation, comprises the study's objectives, hypotheses, conclusions, implications, recommendations, limitations and directions for future research. Therefore, this chapter has been carried out as per the following breakups:

4.1 OBJECTIVES OF THE STUDY

1. To study the levels of teacher effectiveness, adversity quotient, alienation and change proneness among teachers.
2. To find the difference in teacher effectiveness, adversity quotient, alienation and change proneness of teachers with respect to type of school, gender and experience.
3. To study the relationship of teacher effectiveness with adversity quotient, alienation and change proneness of teachers.
4. To study the role of adversity quotient, alienation and change proneness on teacher effectiveness of teachers.

4.2 HYPOTHESES OF THE STUDY

I. There exists no significant difference in teacher effectiveness, adversity quotient, alienation and change proneness of teachers with respect to type of school, gender and experience.

H_{01,1} There exists no significant difference in teacher effectiveness of teachers with respect to type of school.

H_{01,2} There exists no significant difference in teacher effectiveness of teachers with respect to gender.

H_{01,3} There exists no significant difference in teacher effectiveness of teachers with respect to experience.

H_{01,4} There exists no significant interaction effect of type of school and gender on teacher effectiveness of teachers.

- H0_{1.5} There exists no significant interaction effect of type of school and experience on teacher effectiveness of teachers.
- H0_{1.6} There exists no significant interaction effect of gender and experience on teacher effectiveness of teachers.
- H0_{1.7} There exists no significant interaction effect of type of school, gender and experience on teacher effectiveness of teachers.
- H0_{1.8} There exists no significant difference in adversity quotient of teachers with respect to type of school.
- H0_{1.9} There exists no significant difference in adversity quotient of teachers with respect to gender.
- H0_{1.10} There exists no significant difference in adversity quotient of teachers with respect to experience.
- H0_{1.11} There exists no significant interaction effect of type of school and gender on adversity quotient of teachers.
- H0_{1.12} There exists no significant interaction effect of type of school and experience on adversity quotient of teachers.
- H0_{1.13} There exists no significant interaction effect of gender and experience on adversity quotient of teachers.
- H0_{1.14} There exists no significant interaction effect of type of school, gender and experience on adversity quotient of teachers.
- H0_{1.15} There exists no significant difference in alienation of teachers with respect to type of school.
- H0_{1.16} There exists no significant difference in alienation of teachers with respect to gender.
- H0_{1.17} There exists no significant difference in alienation of teachers with respect to experience.
- H0_{1.18} There exists no significant interaction effect of type of school and gender on alienation of teachers.
- H0_{1.19} There exists no significant interaction effect of type of school and experience on alienation of teachers.
- H0_{1.20} There exists no significant interaction effect of gender and experience on alienation of teachers.

H0_{1.21} There exists no significant interaction effect of type of school, gender and experience on alienation of teachers.

H0_{1.22} There exists no significant difference in change proneness of teachers with respect to type of school.

H0_{1.23} There exists no significant difference in change proneness of teachers with respect to gender.

H0_{1.24} There exists no significant difference in change proneness of teachers with respect to experience.

H0_{1.25} There exists no significant interaction effect of type of school and gender on change proneness of teachers.

H0_{1.26} There exists no significant interaction effect of type of school and experience on change proneness of teachers.

H0_{1.27} There exists no significant interaction effect of gender and experience on change proneness of teachers.

H0_{1.28} There exists no significant interaction effect of type of school, gender and experience on change proneness of teachers.

II. There exists no significant relationship of teacher effectiveness with adversity quotient, alienation, change proneness of teachers.

H0_{II.1} There exists no significant relationship of teacher effectiveness with adversity quotient of teachers.

H0_{II.2} There exists no significant relationship of teacher effectiveness with alienation of teachers.

H0_{II.3} There exists no significant relationship of teacher effectiveness with change proneness of teachers.

III. There is no role of adversity quotient, alienation, change proneness on teacher effectiveness of teachers.

4.3 CONCLUSIONS

The following are conclusions of the findings derived after analysis of data in accordance with objectives framed in the present study:

I. Objective: To study the levels of teacher effectiveness, adversity quotient, alienation and change proneness among teachers.

4.3.1 DESCRIPTIVE ANALYSIS

1. When analysing secondary school teachers' teacher effectiveness by percentage analysis, it has come to fore that they lie at 1.2% (n=06) at very high level; 3.8% (n=19) at high level; 14.2% (n=71) at above average level; 63.6% (n=318) at average level; 12% (n=60) at below average level; 4.3% (n=21) at low level and 1% (n=05) at very low level of teacher effectiveness. The majority of the secondary school teachers possess "Average" teacher effectiveness level followed by "Above Average, Below Average, Low, High, Very High and Very Low" teacher effectiveness levels.
2. 0.4% (n=02) possess very high; 1.2% (n=6) possess high; 14.2% (n=71) possess above average level; 70.4% (n=352) possess average; 10.2% (n=51) possess below average; 2% (n=10) possess low and 1.6% (n=08) secondary school teachers possess very low preparation for teaching and planning levels. Majority of the secondary school teachers possess average level followed by "Above Average, Below Average, Low, Very Low, High, Very High" levels of preparation for teaching and planning.
3. The secondary school teachers possess 0.4% (n=02) high; 0.6% (n=03) above average; 83% (n=415) average; 7.6% (n=38) below average; 5.6% (n=28) low and 2.8% (n=14) very low classroom management levels. In majority, the secondary school teachers possess average level of classroom management then "Below Average, Low, Very Low, Above Average, High" levels of classroom management.
4. About 19.8% (n=99) secondary school teachers perceive above average; 65.8% (n=329) perceive average; 7.8% (n=39) perceive below average; 5.6% (n=28) perceive low; 1% (n=05) perceive very low "Knowledge of subject-matter etc." levels. Most of the secondary school teachers perceive an average level followed by "Above Average, Below Average, Low and Very Low" levels respectively.

5. Resultant values of the percentage analysis of the teacher characteristics of secondary school teachers indicate that 0.4% (n=02) possess high; 17.6% (n=88) possess above average level; 63.4% (n=317) possess average; 13% (n=65) possess below average; 4% (n=20) possess low and 1.6% (n=8) have a very low teacher characteristics levels. Majority of the secondary school teachers possess average level in teacher characteristics then “Above Average, Below Average, Low, High, Very Low” levels of teacher characteristics.
6. Around 3.6% (n=18) secondary school teachers have very high, 4.8% (n=24) depict high; 2.6% (n=13) are having above average; 76.8% (n=384) possess average; 7.8% (n=39) possess below average; 3.4% (n=17) exhibit low and only 1% (n=05) have a very low interpersonal relations levels. Majority of the secondary school teachers possess an average level in interpersonal relations then “Below Average, High, Very High, Low, Above Average, Very Low” levels of interpersonal relations.
7. 1.6% (n=08) secondary school teachers possess very high; 5.2% (n=26) possess high; 13.6% (n=68) possess above average; 49.8% (n=249) possess average; 21.4% (n=107) possess below average; 7.4% (n=37) possess low level of adversity quotient and only 1% (n=05) fall at very low adversity quotient levels. Maximum number of the secondary school teachers possess an average level followed by “Below Average, Above Average, Low, High, Very High and Very Low” levels of adversity quotient.
8. The percentage analysis results also suggest that 6.8% (n=34) secondary school teachers possess very high; 4.4% (n=22) possess high; 12.8% (n=64) possess above average; 48.4% (n=242) possess average; 9.6% (n=48) possess below average; 8.6% (n=43) possess low; 9.4% (n=47) exhibit very low control levels. Majorly, secondary school teachers possess average level followed by “Above Average, Below Average, Very Low, Low, Very High and High” levels of control.
9. 1.4% (n=07) secondary school teachers perceive very high; 15.6% (n=78) perceive high; 19% (n=95) perceive above average; 50.8% (n=254) perceive average; 6% (n=30) perceive below average; 3.8% (n=19) perceive low and

only 3.4% (n=17) perceive very low ownership and endurance levels. Majority of secondary school teachers perceive average ownership and endurance level followed by “Above Average, High, Below Average, Low, Very Low and Very High” levels of ownership and endurance.

10. Around 0.4% (n=02) secondary school teachers possess very high; only 1% (n=5) possess high; 37.2% (n=186) possess above average; 29.2% (n=146) possess average; 16.4% (n=82) possess below average; 5% (n=25) possess low and 10.8% (n=54) possess very low reach levels. Majorly, secondary school teachers possess above average level followed by “Average, Below Average, Very Low, Low, High and Very High” levels of reach.
11. Only 1% (n=05) of secondary school teachers possess a very high level; 4.4% (n=22) possess high; 15.4% (n=77) possess above average; 35.4% (n=177) possess average; 37.2% (n=186) possess below average; 5.2% (n=26) possess low and 1.4% (n=07) possess very low alienation levels. Majority of the secondary school teachers possess “Below Average then, Average, Above Average, Low, High, Very Low and Very High” levels of alienation.
12. The secondary school teachers possess 3.6% (n=18) perceive very high; 8.4% (n=42) perceive high; 10.8% (n=54) perceive above average; 20.2% (n=101) perceive average; 36.2% (n=181) perceive below average; 12.6% (n=63) perceive low; 8.2% (n=41) perceive very low work alienation levels. In majority, the secondary school teachers perceive “Below Average then, Average, Low, Above Average, High, Very Low and Very High” levels respectively.
13. About 3.8% (n=19) secondary school teachers possess very high; 11.8% (n=59) possess high; 6.2% (n=31) possess above average; 23.8 (n=119) possess average; 17.8% (n=89) possess below average; 34.4% (n=172) possess low and 2.2% (n=11) possess very low social isolation levels. Majorly, the secondary school teachers perceive “Low then, Average, Below Average, High, Above Average, Very High, Very Low” levels of social isolation.
14. 11.2% (n=56) secondary school teachers possess very high; 9.6% (n=48) possess high; 5.2% (n=26) possess above average; 35.2% (n=176) possess

average; 36.4% (n=182) possess below average; 1.6% (n=08) possess low and 0.8% (n=04) exhibit very low cultural estrangement levels. In majority, the secondary school teachers possess below average level followed by “Average, Very High, High, Above Average, Low and Very Low” levels of cultural estrangement.

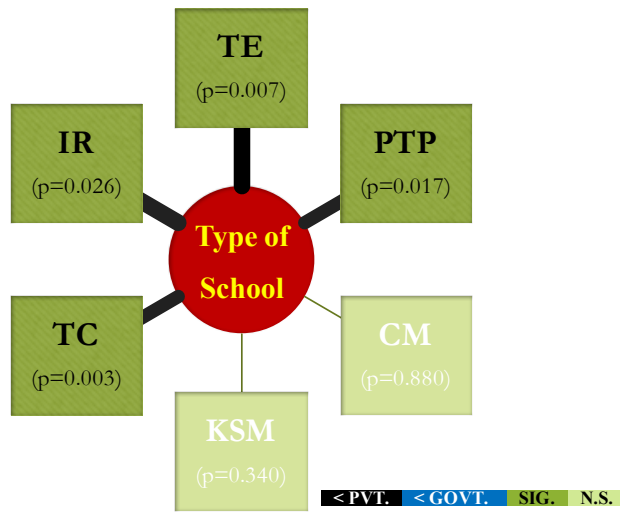
15. For change proneness, 1.8% (n=09) secondary school teachers exhibit very high; 4.8% (n=24) exhibit high; 14% (n=70) exhibit above average; 56.2% (n=281) exhibit average; 20.4% (n=102) exhibit below average; 2.4% (n=12) exhibit low and 0.4% (n=02) exhibit very low change proneness levels. Most of the secondary school teachers possess average level of change proneness followed by “Below Average, Above Average, High, Low, Very High and Very Low” levels of change proneness.

II. Objective: To find the difference in teacher effectiveness, adversity quotient, alienation and change proneness of teachers with respect to type of school, gender and experience.

4.3.2 COMPARATIVE ANALYSIS

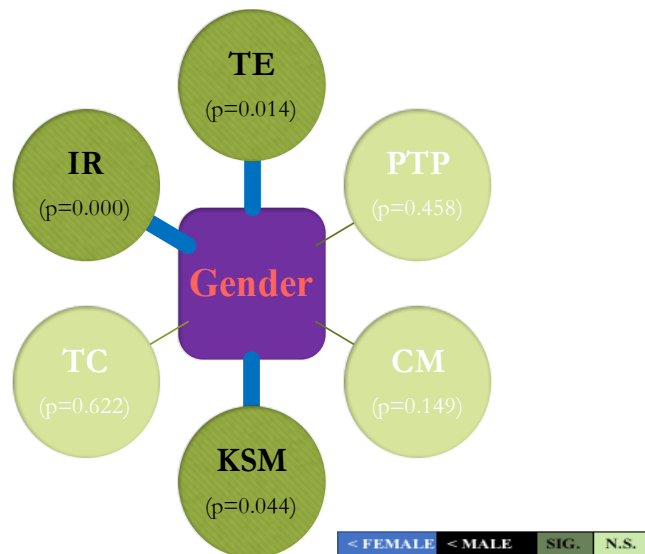
16. For the teachers of “Private and Government” secondary school teachers, the F-ratio for differences in teacher effectiveness is and for its dimensions i.e. “Preparation for teaching and planning, Classroom management, Knowledge of subject-matter etc., Teacher characteristics, Interpersonal relations” is 7.343 ($p < 0.05$), 5.753 ($p < 0.05$), 0.023 ($p > 0.05$), 0.912 ($p > 0.05$), 9.129 ($p < 0.05$), 4.991 ($p < 0.05$) respectively. The private secondary school teachers are more effective in “Preparation for teaching and planning, Teacher characteristics” and in their interpersonal skills than the government secondary school teachers. The private secondary school teachers and government secondary school teachers are equally effective in their “Classroom management, Knowledge of subject-matter etc.” For teacher effectiveness, the data provides sufficient evidence that private type of schools’ secondary teachers as compared to government type of schools’ secondary teachers are more effective teachers.

Figure 4.1 Diagrammatic Representation of Comparative Analysis of Teacher Effectiveness w.r.t. Type of School



17. Female and male secondary school teacher have F-ratio for differences in teacher effectiveness equal to and for its dimensions i.e. “Preparation for teaching and planning, Classroom management, Knowledge of subject-matter etc., Teacher characteristics, Interpersonal relations” is 6.022 ($p < 0.05$), 0.553 ($p > 0.05$), 2.089 ($p > 0.05$), 4.08 ($p < 0.05$), 0.243 ($p > 0.05$), 19.286 ($p < 0.05$) respectively.

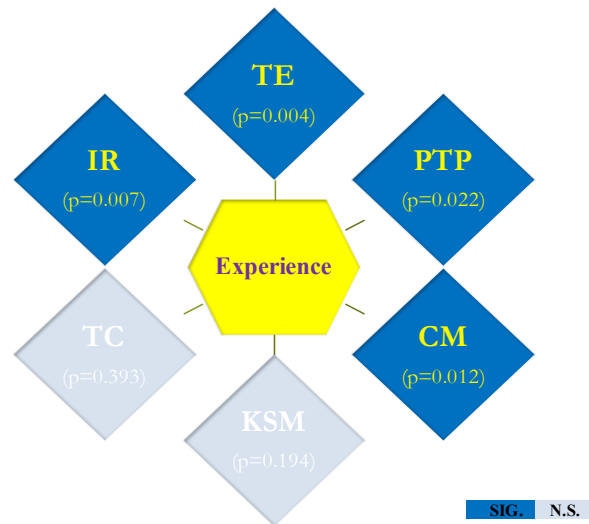
Figure 4.2 Diagrammatic Representation of Comparative Analysis of Teacher Effectiveness w.r.t. Gender



Female secondary school teachers are more effective in their “Knowledge of subject-matter etc., Interpersonal skills” than male secondary school teachers. The female secondary school teachers and male secondary school teachers are equally effective in their “Preparation for teaching and planning, Teacher characteristics”. The findings make it quite evident that in teacher effectiveness, female secondary school teachers as compared to male secondary school teachers are more effective teachers.

18. The F-ratio for differences in teacher effectiveness with respect to the experience of the secondary school teachers is and for its dimensions i.e. “Preparation for teaching and planning, Classroom management, Knowledge of subject-matter etc., Teacher characteristics, Interpersonal relations” is 3.835 ($p < 0.05$), 5.684 ($p < 0.05$), 4.446 ($p < 0.05$), 1.648 ($p > 0.05$), 0.935 ($p > 0.05$), 4.952 ($p < 0.05$) respectively.

Figure 4.3 Diagrammatic Representation of Comparative Analysis of Teacher Effectiveness w.r.t. Experience

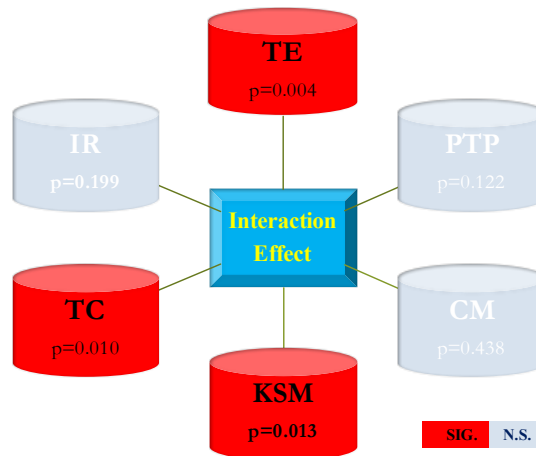


The secondary school teachers having low, average and high experience do not differ significantly in teacher effectiveness dimensions viz. “Knowledge of subject-matter etc., Teacher characteristics”. Teachers of high experience scored more on teacher effectiveness, “Preparation for teaching and planning, Interpersonal relations” than teachers of low experience. Teachers of average experience had scored more in classroom management than

teachers of low experience meaning thereby that teachers of average experience are better in handling and managing their classrooms.

19. The F-values due to interaction of type of school and gender in teacher effectiveness and its dimension i.e. “Preparation for teaching and planning, Classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” of secondary school teachers are 8.463, 2.394, 0.603, 6.2, 6.76, 1.651 respectively. Secondary school teachers on the scores of teacher effectiveness dimensions viz. “Preparation for teaching and planning, Classroom management and Interpersonal relations” as a result of interaction effect for various sub-groups do not differ significantly ($p>0.05$). The interaction between type of school and gender of secondary school teachers on teacher effectiveness and its dimensions i.e. “Knowledge of subject-matter etc., Teacher characteristics” of secondary school teachers was found to be significant ($p<0.05$).

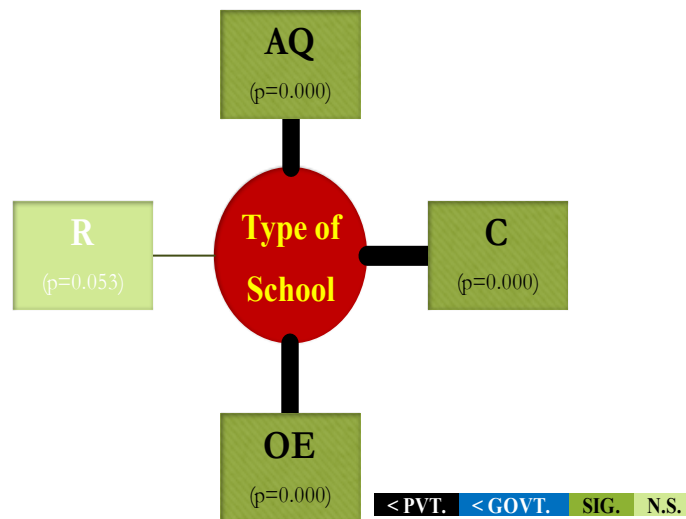
Figure 4.4 Diagrammatic Representation of Comparative Analysis of Teacher Effectiveness w.r.t. Type of School*Gender



20. The perception of teachers on the scores of teacher effectiveness and its dimension i.e. “Preparation for teaching and planning, Classroom management, Knowledge of subject-matter etc., Teacher characteristics and Interpersonal relations” as a result of interaction effect of type of school and experience; gender and experience; type of school, gender and experience for various sub-groups does not differ significantly ($p>0.05$).

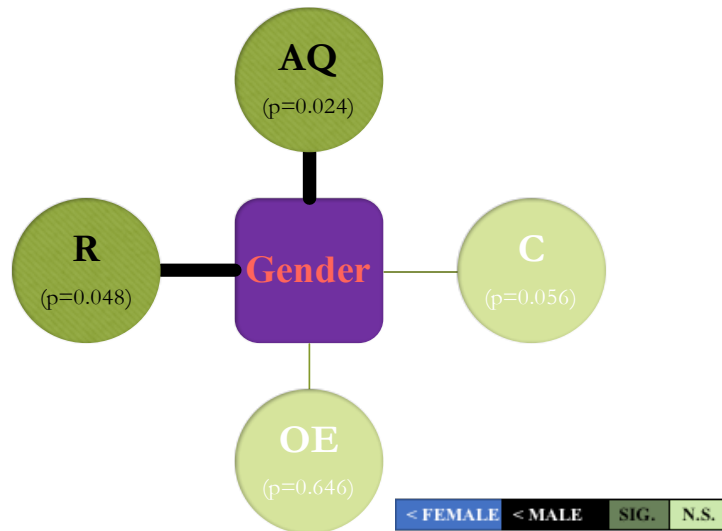
21. The F-ratios for differences in adversity quotient and its dimensions control, ownership and endurance, reach with respect to the type of school of the secondary school teachers are 31.772 ($p < 0.05$); 21.657 ($p < 0.05$); 13.666 ($p < 0.05$); 0.335 ($p > 0.05$) respectively. Private secondary school teachers have more adversity quotient, control, ownership and endurance than the government secondary school teachers. The private secondary school teachers and government secondary school teachers have equal reach towards adversities.

Figure 4.5 Diagrammatic Representation of Comparative Analysis of Adversity Quotient w.r.t. Type of School



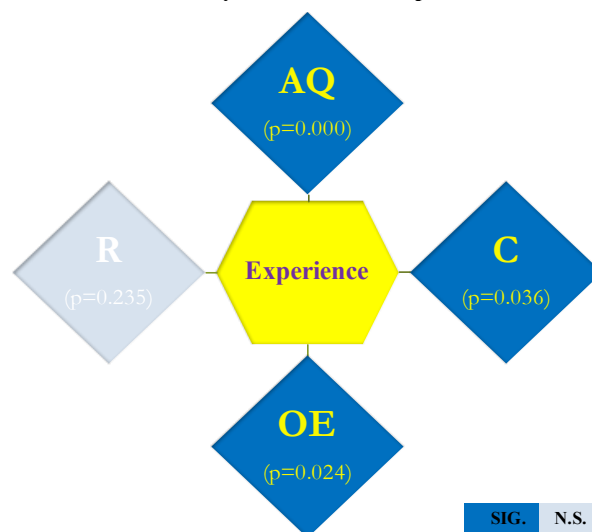
22. In comparative analysis, female and male secondary school teachers have F-ratio for differences in adversity quotient and its dimensions control, ownership and endurance, reach as 5.101 ($p < 0.05$); 3.663 ($p > 0.05$); 0.211 ($p > 0.05$); 3.932 ($p < 0.05$) respectively. Male secondary school teachers have more adversity quotient, reach than female secondary school teachers. The female secondary school teachers and male secondary school teachers equally perceive control, ownership and endurance.

Figure 4.6 Diagrammatic Representation of Comparative Analysis of Adversity Quotient w.r.t. Gender



23. The F-ratio for differences in adversity quotient and its dimensions control, ownership and endurance, reach with respect to the experience of the secondary school teachers is 9.133 ($p < 0.05$); 3.359 ($p < 0.05$); 3.767 ($p < 0.05$); 1.451 ($p > 0.05$) respectively. Teachers having experience i.e. low, average and high equally perceive their reach towards adversity. The main effect of experience was found significant for adversity quotient and its dimensions control, ownership and endurance of secondary school teachers.

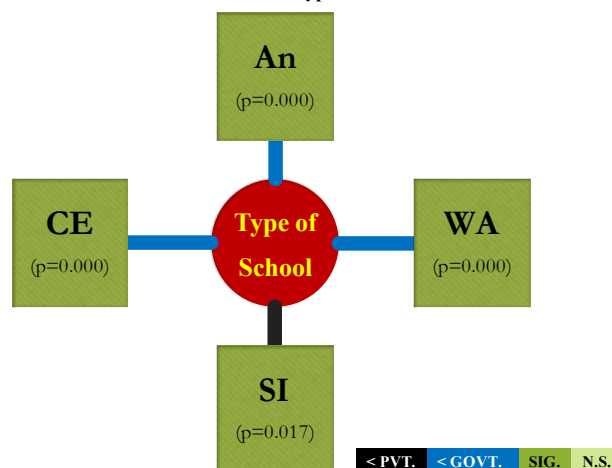
Figure 4.7 Diagrammatic Representation of Comparative Analysis of Adversity Quotient w.r.t. Experience



The secondary school teachers of high experience have more adversity quotient than secondary school teachers of low experience. The average experienced secondary school teachers have more adversity quotient in comparison to low experienced secondary school teachers. The secondary school teachers of average experience have more control than secondary school teachers of low experience. The average experienced secondary school teachers have more ownership and endurance in comparison to low experienced secondary school teachers.

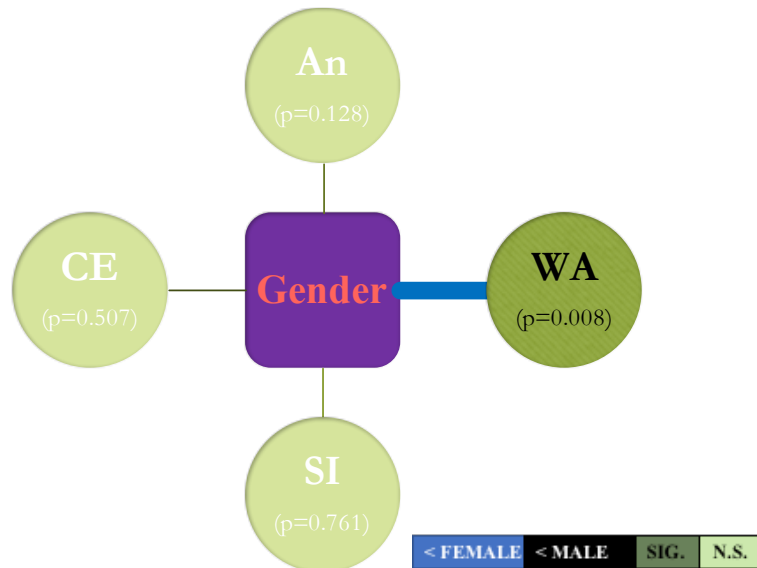
24. Interaction effect of type of school and gender; type of school and experience; gender and experience; type of school, gender and experience of secondary school teachers on adversity quotient and its dimensions control, ownership and endurance, reach was found to be insignificant ($p > 0.05$) indicating that they have no joint effect on the same.
25. The F-ratios for differences in alienation and its dimensions work alienation, social isolation and cultural estrangement with respect to the type of school of the secondary school teachers are 13.71 ($p < 0.05$); 13.022 ($p < 0.05$); 5.789 ($p < 0.05$); 58.327 ($p < 0.05$) respectively. The government secondary school teachers have more alienation and its dimension i.e. work alienation than the private secondary school teachers. The private secondary school teachers have more social isolation and cultural estrangement than government secondary school teachers.

Figure 4.8 Diagrammatic Representation of Comparative Analysis of Alienation w.r.t. Type of School



26. Female and male secondary school teachers have F-ratio for differences in alienation and its dimensions work alienation, social isolation and cultural estrangement as 2.325 ($p>0.05$); 7.068 ($p<0.05$); 0.093 ($p>0.05$); 0.441 ($p>0.05$) respectively. Secondary school female teachers and male teachers equally perceive alienation and its dimensions i.e. social isolation and cultural estrangement. Whereas, the female secondary school teachers experience more work alienation than the male secondary school teachers.

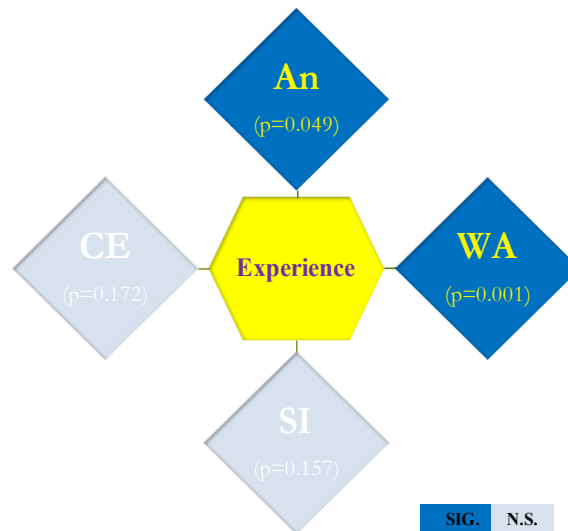
Figure 4.9 Diagrammatic Representation of Comparative Analysis of Alienation w.r.t. Gender



27. The F-ratio for differences in alienation and its dimensions work alienation, social isolation and cultural estrangement with respect to the experience of the secondary school teachers is 3.033 ($p<0.05$); 7.459 ($p<0.05$); 1.856 ($p>0.05$); 1.767 ($p>0.05$) respectively. Experience of secondary school teachers i.e. low, average and high experience is significantly differing in alienation and its dimension viz. work alienation. The secondary school teachers of high experience scored less on alienation than secondary school teachers of low experience. Also, the low experienced secondary school teachers have more work alienation than high experienced secondary school teachers. The main effect of experience on alienation dimensions viz. social

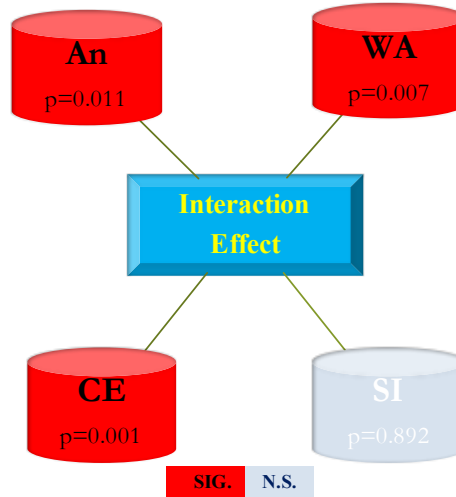
isolation and cultural estrangement of secondary school teachers is found to be not significant.

Figure 4.10 Diagrammatic Representation of Comparative Analysis of Alienation w.r.t. Experience



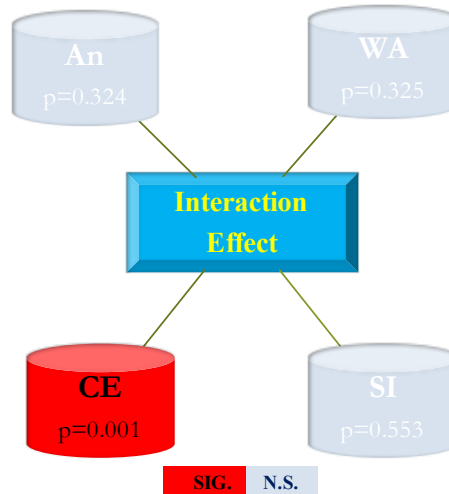
28. Interaction effect of type of school and gender; gender and experience of secondary school teachers on alienation and its dimensions work alienation, social isolation and cultural estrangement for various sub-groups does not differ significantly ($p > 0.05$).
29. The F-values due to interaction of type of school and experience in alienation and its dimensions i.e. work alienation and cultural estrangement of secondary school teachers are 4.566, 5.087, 0.114, 6.904 respectively. For alienation and its dimensions i.e. work alienation and cultural estrangement, results of interaction effect of type of school and experience was found to be significant ($p < 0.05$). So, results indicate that the main effects, type of school and experience together form a joint effect on mean scores of alienation and its dimensions work alienation and cultural estrangement. The perception of teachers on the scores of social isolation as a result of interaction of type of school and experience for various sub-groups does not differ significantly ($p > 0.05$).

Figure 4.11 Diagrammatic Representation of Comparative Analysis of Alienation w.r.t. Type of School*Experience



30. Secondary school teachers on the scores of alienation and its dimensions work alienation and social isolation as a result of interaction of type of school, gender and experience for different sub groups does not differ significantly ($p > 0.5$). Also, secondary school teachers' alienation dimension viz. cultural estrangement as a result of interaction of type of school, gender and experience for different sub-groups differs significantly ($p < 0.5$).

Figure 4.12 Diagrammatic Representation of Comparative Analysis of Alienation w.r.t. Type of School*Gender*Experience

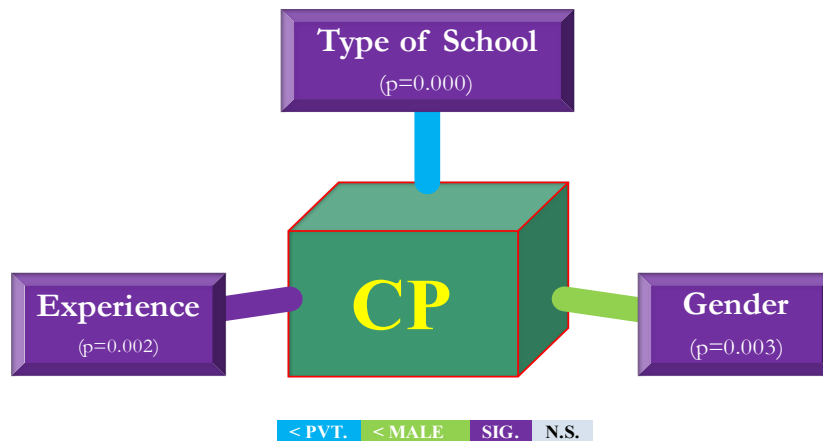


31. The F-ratio for differences in change proneness with respect to the type of school of the secondary school teachers is 30.839 ($p < 0.05$). Private type of schools' secondary teachers as compared to government type of schools' secondary teachers have more willingness towards innovation in teaching

meaning that they have more change proneness.

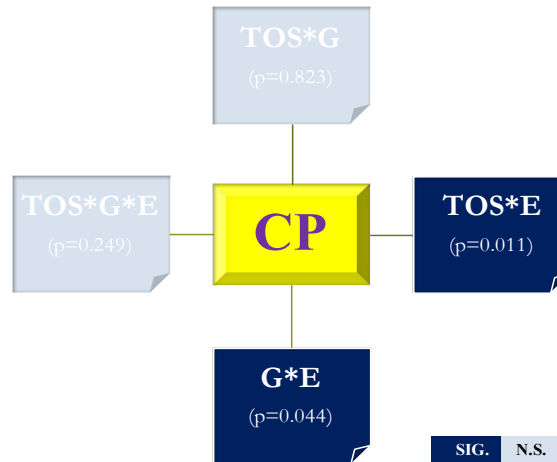
32. Based on the gender of the secondary school teachers, their F-value for differences in change proneness is 8.893 ($p < 0.05$). Male secondary school teachers have more change proneness than the female secondary school teachers. Hence, the data provides sufficient evidence that, male secondary school teachers as compared to female secondary school teachers are more flexible, open and prone to change.
33. The F-ratio for difference in change proneness with respect to the experience of the secondary school teachers is 6.327 ($p < 0.05$). Average experienced secondary school teachers have more change proneness than low experienced secondary school teachers. The high experienced secondary school teachers have more change proneness than low experienced secondary school teachers. Whereas, secondary school teachers having average experience do not differ significantly in their change proneness from teachers having high experience.

Figure 4.13 Diagrammatic Representation of Comparative Analysis of Change Proneness w.r.t. Type of School, Gender and Experience



34. Interaction effect of type of school and gender ($F=0.050$; $p > 0.05$); type of school, gender and experience ($F=1.392$; $p > 0.05$) of secondary school teachers on change proneness is found to be not significant. The results show that perception of secondary school teachers on the scores of change proneness as a result of interaction for various sub-groups do not differ significantly.

Figure 4.14 Diagrammatic Representation of Comparative Analysis of Change Proneness w.r.t. Type of School*Gender, Type of School*Experience, Gender*Experience and Type of School*Gender*Experience

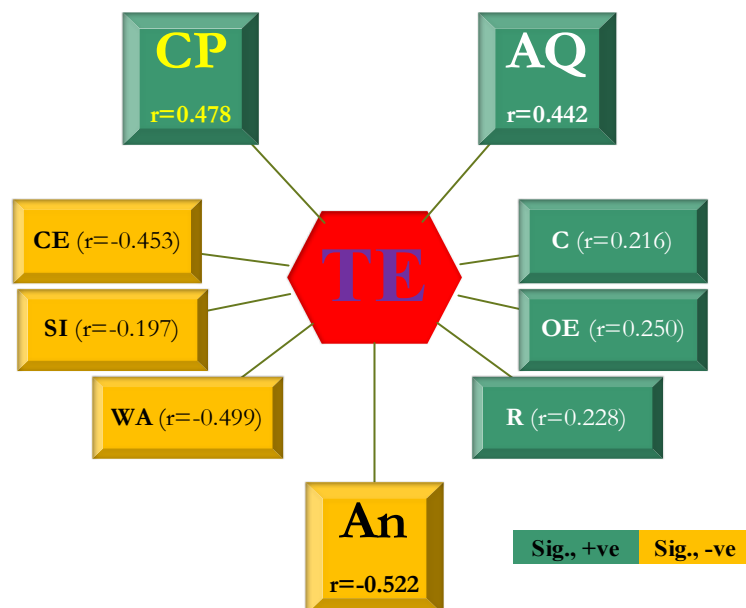


35. Interaction effect of type of school and experience ($F=4.518$; $p<0.05$); gender and experience ($F=3.141$; $p<0.05$) of secondary school teachers on change proneness is found to be significant indicating that their main effects have a joint effect on mean scores of change proneness.

III. Objective: To study the relationship of teacher effectiveness with adversity quotient, alienation and change proneness of teachers.

4.3.3 CORRELATIONAL ANALYSIS

Figure 4.15 Diagrammatic Representation of Correlational Analysis of Teacher Effectiveness with Adversity quotient, Alienation, Change Proneness



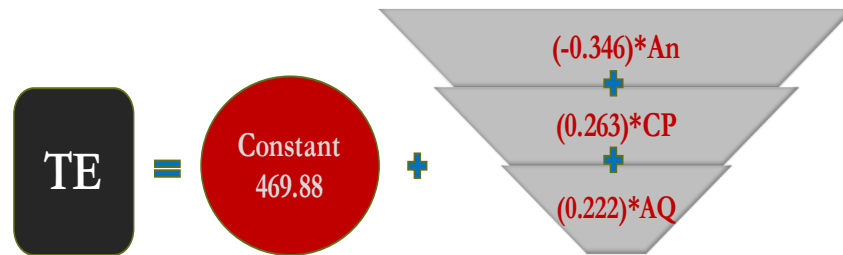
36. Adversity quotient and its dimensions viz. control, ownership and endurance, reach have a significant bivariate correlation with teacher effectiveness ($r=.442, .216, .250, .228$ respectively) and its dimensions viz., “Preparation for teaching and planning ($r=.253, .199, .158, .217$ respectively), Classroom management ($r=.236, .148, .206, .174$ respectively), Knowledge of subject-matter etc. ($r=.257, .170, .155, .152$ respectively), Teacher characteristics ($r=.312, .150, .204, .144$ respectively), Interpersonal relations” ($r=.311, .169, .153, .164$ respectively).
37. Alienation and its dimensions i.e. work alienation, social isolation, cultural estrangement have a vice-versa significant negative bivariate correlation with teacher effectiveness ($r= -.522, -.499, -.197, -.453$ respectively) and its dimensions i.e., “Preparation for teaching and planning ($r=-.348, -.319, -.180, -.274$ respectively), Classroom management ($r= -.155, -.176, -.149, -.160$ respectively), Knowledge of subject-matter etc. ($r=-.228, -.250, -.144, -.227$ respectively), Teacher characteristics” ($r=-.383, -.364, -.142, -.365$ respectively), Interpersonal relations” ($r=-.449, -.403, -.147, -.347$ respectively). The correlation between social isolation and teacher characteristics is found to be not significant. This indicates that if teachers are isolated socially then, there is a probability that this negative situation will not have a significant effect on the characteristics of teachers.
38. Change proneness has a positively bivariate correlation with teacher effectiveness ($r=.478$) and its dimensions which are namely, “Preparation for teaching and planning ($r=.266$), Classroom management ($r=.227$), Knowledge of subject-matter etc. ($r=.248$), Teacher characteristics ($r=.371$) and Interpersonal relations” ($r=.332$).

Hence, an ascend or descend in change proneness would respectively ascend or descend the teacher effectiveness and its factors of secondary school teachers in moderation.

IV. OBJECTIVE: To study the role of adversity quotient, alienation and change proneness on teacher effectiveness of teachers.

4.3.4 REGRESSION ANALYSIS

Figure 4.16 Diagrammatic Representation of Regression Equation of Role of Adversity quotient, Alienation and Change Proneness on Teacher Effectiveness



39. Adversity quotient, alienation, change proneness play a moderately significant role on teacher effectiveness ($R=0.561$; $R^2=0.315$) of secondary school teachers. Alienation ($B=-0.346$; $p<.05$) followed by Change proneness ($B=0.263$; $p<.05$) and then Adversity quotient ($B=0.222$; $p<.05$) contribute respectively the teacher effectiveness. They play a mild significant role on teacher effectiveness dimensions viz. “Preparation for teaching and planning ($R=0.355$; $R^2=0.126$), Classroom management ($R=0.248$; $R^2=0.061$), Knowledge of subject-matter etc. ($R=0.280$; $R^2=0.079$), Teacher characteristics ($R=0.418$; $R^2=0.174$) and Interpersonal relations” ($R=0.455$; $R^2=0.207$) of secondary school teachers. The results indicated good fit models ($p<.01$) with statistically significant contribution.
40. Adversity quotient dimensions viz. Control ($B=0.191$; $p<.05$), Ownership and Endurance ($B=0.180$; $p<.05$), Reach ($B=0.355$; $p<.05$); Alienation dimensions viz. Work alienation ($B=-0.305$; $p<.05$), Social isolation ($B=-0.147$; $p<.05$), Cultural estrangement ($B=-0.622$; $p<.05$); Change proneness ($B=0.259$; $p<.05$) together play a moderately significant role on teacher effectiveness ($R=0.557$; $R^2=0.311$) of secondary school teachers with better contribution by cultural estrangement and mild by ownership and endurance. Also, They play a mild significant role on teacher effectiveness dimensions viz. “Preparation for teaching and planning ($R=0.346$; $R^2=0.120$), Classroom management ($R=0.242$; $R^2=0.059$), Knowledge of subject-matter etc.

($R=0.267$; $R^2=0.071$), Teacher characteristics ($R=0.413$; $R^2=0.170$) and Interpersonal relations” ($R=0.448$; $R^2=0.201$) of secondary school teachers. The results indicated good fit models ($p<0.01$). Apart from the insignificant role of alienation dimension viz. social isolation on teacher effectiveness dimension viz. teacher characteristics (other potent factors might be inducing bigger contributions), the predictors had a statistically significant contribution. So, it can be concluded that overall with the increase of adversity quotient and change proneness, teachers’ performance in terms of their effectiveness also increases moderately. The overall lower traits in alienation lead towards higher effectiveness traits in teachers in moderation.

4.4 IMPLICATIONS AND RECOMMENDATIONS

1. *The present study developed, modified and validated scales on adversity quotient and alienation.* The school academicians can easily depend and rely on these scales which are quite specific to their domains for the purpose of measuring the levels of resilience towards adversities among teachers and to measure the teachers’ feeling of being aloof at school and in society. The scales will help school administrators and authorities to:
 - i. Explore and identify performance gaps of in-service teachers as well as during hiring and appointment of new teachers in deciding that whether the teacher to be appointed is a best deserving candidate to be teaching in their school with a better mental competency by assessing the scores on each domain and component of adversity quotient and alienation.
 - ii. It would help them to take customised intervention steps by counselling of each individual teacher depending on the situation of an in-service teacher lagging behind in certain domain/domains to overcome them successfully.
2. *In the present study, most of the teachers of secondary schools belong to average category in teacher effectiveness, adversity quotient, change proneness and below average category in alienation.* Therefore school authorities should have:
 - i. Time to time faculty development programs and similar in-service refresher courses along with life skills education so that the teachers can be more than average effective teachers. Also on regular basis, discreet monitoring by the

school principal on the teacher's performance should be done for better transparency of the status quo of the teachers' effectiveness in school. Online feedback system with anonymity must be introduced so that the students can give feedback if they are facing problems and are hesitant in coming forward so that teachers are able to get constructive feedback about their overall performance and can be better than average effective teachers.

- ii. The school workplace life should be such that there is no heavy burden and stress on teachers with regards to assignment of teaching and non-teaching duties so that situations don't arise wherein they are not able to prioritize between academic and administrative work thereby creating an imbalance in-between their professional and personal life since apart from their high intelligence quotient, they ought to have more than moderate adversity quotient for better mental health to be an effective teacher.
 - iii. Better workplace conditions and environment, deserved salaries, remunerations and other benefits to the teachers must be provided so that there is a sense of inclusivity in them to be an integral part of the school institution and that they hence feel less than moderately low alienation and feel included into the system of their school organization.
 - iv. Better scope for professional development must be ensured for the teachers than the existing traditional norms which will enhance readiness for change in the change reluctant teachers. So encouragement and less criticism rather if necessary, constructive feedback must be given to the teachers to experiment in their teaching methods apart from the traditional chalk and board situation in classroom and better cutting edge teaching-learning facilities must be provided so that teachers are more than just moderate teachers willing to bring in changes to be an effective teacher.
3. *Private school secondary teachers are more effective teachers, have better adversity quotient scores and are more prone to change than the government school secondary teachers. The government secondary school teachers have more feelings of being alienated at their schools than their private school counterparts.* So, the stakeholders of the government school education should proceed steps towards:

- i. Making a paperless system by developing school management system website which reduces time and effort so that teachers can concentrate more on teaching rather than on administrative work. This may include having teachers to fill in their daily progress reports, student attendance record, lesson planning, have virtual training sessions, can receive important announcements, direct teacher-government school education authority communication, relationship management system, e-resources, maintaining records of allocation of funds like midday meal etc. so that the teachers are lessened with the burden on non-teaching work as well as it will ensure constant monitoring on the teacher's activities by authorities to ensure quality education so that the government school teachers are better effective teachers and the same may be done in the private school organisations as well to elevate their status quo in their teacher effectiveness.
- ii. Introducing new programs of intervention for reducing work-related stress at school which affects teacher effectiveness negatively must be introduced so that the government school teachers are able to have better adversity quotient. Frequent election duties, competitive examination invigilation and other related duties in addition to school academic and administrative work increases their stress and demotivates the teachers in performing their teaching duties effectively with enthusiasm rather they aren't able to cope up with these challenges so recruitment of more teachers must be done by providing more teaching vacancies. As lack of teaching staff, these duties are over-burdening and over-bearing so proper and distributed work allocation system must be followed so that the teaching-learning process in the classroom situation is not compromised due to 'not so good' adversity quotient and mental well-being of teachers arising due to adverse situations.
- iii. Apart from the government authorities being part of the reforms to bring in for government school education, students and teachers, the teachers must also be one of the stakeholder in the decision-making process since they know the ground reality of the challenges being faced in day to day life of the teachers like lack of proper classrooms, sanitation, books, computers, modern teaching facilities, transportation etc. Team work and group efforts must be encouraged

at school level by the school principal/ authorities so that there is a sense of belongingness and not alienation in the teachers towards higher authority level and school level.

- iv. They should also put their prime focus on increasing the change proneness of government school teachers leading towards their teacher effectiveness by promotion of interventions of in-service career development programs with regards to training teachers for teaching through smart boards, computers, overhead projectors, new technologies being introduced etc. and discourage traditional methods of teaching so that the willing ones are to be provided with ample opportunities in this regard and the reluctant ones also are able to mould their unwillingness towards willingness to bring in change in their teaching methods and to keep on updating their knowledge with regards to the new changes made in their subject of teaching.

4. *Male secondary school teachers as compared to female secondary school teachers are better in handling and facing adversities and also, they are more flexible, open and prone to change in their teaching process whereas when it comes to their effectiveness as a teacher, these roles reverse. Female and male secondary school teachers equally feel alienated.* So, immediate senior teachers, departmental heads and principals should:

- i. Help in elevating the status of the school teachers in the Indian education system by providing better salaries and other benefits like any other white-collared occupation so that the teachers do not choose this as the last optional profession rather a favourable one. Especially when it comes to male teachers, it is required to have the cream of the society rather than them choosing other professions in the corporate sector or in other government sectors providing them better opportunities in terms of monetary growth. By doing so, better male effective teachers can be employed in the teaching profession who are the deserving effective teachers. Special emphasis must be given to find out the reasons of lagging behind of teachers individually at school level like regarding the problems being faced by them in teaching effectively etc. and accordingly necessary steps may be taken to enhance their teacher effectiveness.

- ii. Due to teaching and non-teaching work overload, the female teachers comparatively aren't able to effectively cope up with the work related stress leading to adverse situations having negative repercussions in their personal life. Due to this imbalance in professional and personal life, they have to take up their work overload at home like planning and preparing for lesson plans, reading and correction of student assignments, checking examination papers etc. thereby creating work-home life imbalance as there aren't able to fulfil obligations at home effectively leading to stress and them giving up in certain situations their profession of teaching to devote time at home and to themselves or continue in this profession with not better mental health thereby affecting their effectiveness. So, they must not be overburdened but instead systematic timetable for teachers must be developed within the school hours where proper time allocation must be given to all the teaching and non-teaching work and no work must be done exceeding the capped time constraint and if it is not possible then, extra working hours payment must be given to enhance and increase their morale and resilience towards adversities.
- iii. Both female and male teachers' organizational identity and role must be increased and boosted by having diverse culture at school, better tolerance level by the school management in terms of open dialogue to bring in reforms, encouragement of teachers to work and participate in team/ group and also get them involved in the school decision making process will decrease feelings of alienation and increase their sense of belongingness and acceptance.
- iv. Encourage the female teachers comparatively to direct their attention towards referring other resource material for teaching rather than the prescribed school books, to try new practice in teaching irrespective of fear of criticism from others, discussion of news ideas and practices with others to share knowledge must be encouraged, try innovative techniques or practices given in journals, get themselves better acquainted to integrate computer as a teaching aid with other methods in classroom situations etc. which would enhance their willingness to change and adopt new practices to overcome their previous prejudices and bias.

5. *Teachers having high experience are more effective teachers than low experienced teachers. The secondary school teachers of low experience have less adversity quotient compared to secondary school teachers of average and high experience respectively. Also, the low experienced secondary school teachers are more alienated than high experienced secondary school teachers. Teachers having high and average experience are more change prone teachers than the low experienced teachers.* Therefore, government and private schools' management must take necessary measures in providing:
- i. Appropriate and suitable training as soon as after the fresher teachers are recruited as mainstream teachers at school so that they are able to teach effectively. Also, the quality of teacher education must be enhanced where more emphasis must be on practical teaching experiences rather than more on theoretical knowledge on how to teach. These practical teaching experiences mustn't be limited to traditional teaching and learning method in classrooms using chalk and board so that comparatively, the low experienced teachers have better teacher effectiveness.
 - ii. Comparatively special emphasis must be given to the mental well-being of the low experienced teachers since being less fairly experienced in the teaching profession, it is difficult for them in coping up with stressful situations. Unrealistic expectations mustn't be expected out of them which creates a sense of strain in them to compete with the more experienced teachers. Mentoring programs must be adopted with more experienced teachers as mentors and less experienced teachers as mentee to help them to adjust and gel well in the school environment and fulfil the duties expected out of them with the effective guidance of the mentors. Counselling sessions must be held on time to time basis as well as life skills training sessions must be provided. Better pay and job guarantee must be provided to the low experienced teachers comparatively rather than just recruiting them only on contractual basis with no guarantee of not losing job at any given point of time and eventually not making their position permanent depending on their competency.
 - iii. Distribution of responsibilities must be according to competency of teachers and simply not based on higher experience of teachers which creates a sense of

invisible divide between the teachers leading the ignored less experienced ones more vulnerable to feelings of lack of belongingness. Favouritism on the part of school authorities for more experienced old employees creates a sense of aloofness and alienation for the less experienced teachers. Everyone must be treated and respected equally. Any kind of politics and informal teacher unions must be discouraged by the school authorities and be a problem solver from their end so that there ought be a more congenial and healthy school environment between teachers without fear of criticism so that every teacher whether low, average or high experienced teacher are part of the important decision making process of school. The teachers themselves at their individual level must be inclusive and helpful to the freshly recruited or low experienced teachers in the teaching occupation.

- iv. Programs of pre-service teacher education and preparation must be designed in such a way that it includes practical based teaching, information and communication technology integration in the teaching etc. Liston et al. (2009) said that the majority of the responsibility of work is on teacher educators who transform and change teacher education by using digital technology by themselves. Therefore, the courses which are specific in teaching with information and communication technology could be developed. The low experienced teachers comparatively must be provided adequate freedom to try out new ideas in teaching etc. so that they are pushed and encouraged towards being better prone teachers for change.
6. *Teacher effectiveness has significant relationship with adversity quotient, alienation and change proneness. Associations among have them been found. The study not only present insights which are productive and useful but also delivers much needed exactitude literature about the former and the significant role of adversity quotient, alienation, change proneness on teacher effectiveness in secondary school teachers' context in the school educational setting and beyond to the heads of organizations be it private or government and other stakeholders of school education to help them in terms of teacher effectiveness and adversity quotient to provide fair amount of leaves, introduction of minimum wage (salary) for teachers, other related benefits, introduce intervention programs, open*

guidance and counselling cell for teachers, life skills education, have meditation sessions and yoga classes for teachers for few times a week, less work overload etc.; in terms of alienation provide open organisational climate, encourage welcoming school environment which is safe and supportive, have democratic school environment for teachers, opening of workplace harassment cell at school etc. and in terms of change proneness to develop and adopt better teaching techniques, go beyond traditional means of teaching, open more number of government smart schools, provide teachers opportunities to do refresher courses in their teaching subjects, using less of paper and more of technology to reduce time and effort, in-service career development program, soft skills education etc. thereby taking necessary measures for the attenuation of the deleterious effect of low adversity quotient, high alienation and less proneness to change on effectiveness of in-service as well as pre-service teachers. Henceforth, stakeholders of school education will be able to reap multi-dimensional benefits by taking steps towards increasing and enhancing adversity quotient, change proneness and decreasing the alienation for the effectiveness of teachers by taking the aforementioned steps and recommendations.

7. *This study will therefore add new inputs and research findings to the literature in regards to teacher effectiveness, adversity quotient, alienation and change proneness as these variables are significant and important antecedents of job-related behaviours and job performance of teachers at school.*

4.5 LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Even after an effective and reasonable overall contribution of the present study, it may still like any other research-based study would have a few limitations. Hence, the following are the present study's limitations discussed along with suggestions for directions for future research:

1. The present study mainly puts focuses on the direct association between adversity quotient, alienation and change proneness with teacher effectiveness. The research in the future can also be done for exploring the moderating and mediating effect of adversity quotient, alienation and change proneness. Researchers in future may also take into consideration other physiological as

well as psychological variables to explore and study their relationship, moderating as well as mediating effect on teacher effectiveness.

2. Teacher effectiveness is studied as a dependent variable and adversity quotient, alienation and change proneness have been studied as independent variables in the present study. Further vice-versa changes can be made with the same to study these variables in opposite scenario.
3. The role of technology is unaccounted as the scale used for teacher effectiveness is a standardized scale by Kulsum (2011), so it is used in status quo, without modifications.
4. Studies with similar nature of the present study can be replicated by conducting on other populations/samples for finding the levels as well as norms of adversity quotient, alienation and change proneness and their involvement in teacher effectiveness.
5. The present study took into consideration private and government schools. The same study can be conducted based on additional constraint of “Locality” of the schools.
6. The findings of the present study can be further revalidated by adopting other designs of research like the experimental research design. This should be integrated along with psychological, clinical and educational bases for exploring the ways and strategies on the enhancement of teacher effectiveness, adversity quotient and change proneness and also, to reduce alienation.
7. The study is only delimited to the secondary school teachers. Future research may be done on elementary school teachers, prospective teachers, junior college teachers, lecturers/ asst. professors/ professors of colleges and universities, soft skills trainers, school and college principals, head of departments and deans of colleges and universities.
8. Also, a comparative study may be done between school teachers and teachers of higher education for gaining additional insight into teacher effectiveness, adversity quotient, alienation and change proneness link in the academic setting.
9. The demographic variables considered for the present study are only limited to type of school, gender and experience of the teachers. Others demographic

variables may be considered in further studies for a better in-depth study related to the present research work.

10. The present investigation examined the underlying mechanism and issue of non-resilience towards adversities and alienation. There is a need for examination as to how to lessen and reduce the negative effects caused by this phenomenon.
11. The researchers in the future can further check the cross-cultural validity of teacher effectiveness, adversity quotient, alienation and change proneness by conducting comparison of them and their dimensionality in other/different contexts.
12. The validated scales on adversity quotient and alienation can be considered for revalidation in a different context.
13. Researches in the future can also have an inclusion of interviews of the alienation sufferers. Also, it may include organizational head interviews for knowing their opinion on the prevalence of the same in teachers to gain new insights about this phenomenon in the educational context.
14. Results pertaining to descriptive analysis apart from comparative analysis could be analysed further based on the demographic variables.
15. The selection of districts from each region of Punjab for sampling was based on the criteria of the highest population, number of schools, number of secondary school teachers with an additional constraint of literacy rate of Punjab. Additions to the same or different criteria may adopted for the sampling.
16. Due to hesitation of some teachers to fill data, the researcher had to proceed with convenient sampling for selection of teachers from the selected schools where the teacher effectiveness, adversity quotient, alienation, change proneness was perceived by the teachers which may lead to the issue of biasness. Perceptions by other stakeholders of school education other than teachers could be included in the study.
17. More districts of Punjab can be included to give a better generalized result with respect to the state. Further the study can be conducted on national level and not be limited to only one state.

18. The study employed quantitative methods to analyse the results which is limited to the scope of 'what' part not the 'why' part of the status quo of the teacher effectiveness, adversity quotient, alienation, change proneness of teachers. So they must be explored in latter context as well.
19. As there is always a scope of improvement so more additions based on nature of further researches could be done in the standardized as well as self-constructed scales of teacher effectiveness, adversity quotient, alienation, change proneness.
20. More factors could be added in further studies with respect to teacher effectiveness, adversity quotient, alienation, change proneness as they are not limited or restricted to only a definite set.

BIBLIOGRAPHY

- Abari, A. O., Ibikunle, G. A., Animashaun, O. M., & Oguntuga, A. A. (2016). *Principal-teacher relationship, teaching effectiveness and teachers' morale in Lagos state senior secondary schools, Nigeria*. Retrieved July 11, 2018, from https://www.researchgate.net/publication/329701260_principal-teacher_relationship_teaching_effectiveness_and_teachers%27_morale_in_lagos_state_senior_secondary_schools_nigeria_by
- Abejo, A.O. (2002). *Adversity quotient profile of the employees of the college of arts and science of St. Joseph's college, Quezon city: Indicator of their effectiveness as leaders* (Master's thesis). St. Joseph's College, Quezon City, Philippines.
- Abraham, A. (1994). Job satisfaction and teacher effectiveness: A study on college teachers. *Indian Journal of Psychometry & Education*, 25(1-2), 61-64.
- Ademola, B. A. (2007). Teachers' effectiveness and gender as correlates of students academic achievement in English language in Ondo State Nigeria. *Africa Journal of Education Research*, 2(1).
- Agarwal, R. (2003). *Social intelligence and teacher effectiveness*. Retrieved May 16, 2020, from <http://hdl.handle.net/10603/10782>
- Aggarwal, S. (2012). Correlation study of teacher effectiveness and job satisfaction of higher secondary school teachers. *Edutracks*, 12(2), 38.
- Ahmed, M., Mahmood, T., Ghuman, M. A., & Parveen, S. (2013). Is effective education in the hands of private schools or government? Comparative analysis between government and private sector. *Journal of Educational and Social Research*, 5(2), 359-365.
- Ahuja, R. (2014). *Research methods*. New Delhi, India: Rawat Publication.

- Akiri, A. A., & Ugborugbo, N. M. (2008). An examination of gender's influence on teachers' productivity in secondary schools. *Journal of Social Science, 17*(3), 185-191.
- Akiri, A. A., & Ugborugbo, N. M. (2009). Teachers' effectiveness and students' academic performance in public secondary schools in Delta state, Nigeria. *Studies on Home and Community Science, 3*(2), 107-113. doi:10.1080/09737189.2009.11885284
- Alghazo, E. M. (2005). Special education teacher perceptions towards effective instructional practices in the United Arab Emirates (UAE). *Teacher Education and Special Education, 28*(3), 221-229.
- Allen, M. (2003). *Eight questions on teacher preparation: What does the research say?* Denver, CO: Education Commission of the States.
- Almeida, A. (2009). *Development of a programme for enhancing the adversity quotient of junior college students*. Retrieved March 18, 2018, from http://peaklearning.com/grp_research.html
- Amalorpavamary, P., & Velsamy, R. S. (2016). Woman lecturer's morale and change proneness. *International Journal of Management (IJM), 7*(2), 754-760.
- Amandeep, & Gurpreet (2005). A study of teacher effectiveness in relation to teaching competency. *Recent Researches in Education and Psychology, 71*(6), 137-140.
- Anand, N.K. (2016). *Teacher Effectiveness in relation to social intelligence and self concept of secondary school teachers* (Doctoral dissertation, The University of Mysore, India). Retrieved March 18, 2018, from <http://hdl.handle.net/10603/140802>
- Andreasen, A. R. (1991). Readiness to change: Theoretical, empirical and managerial issues. *The Consumption of Time and the Timing of Consumption, North-Holland, Amsterdam*, 138-148.

- Aquino, J. (2013). *Adversity quotient, leadership style and performance of secondary school heads and commitment to organizational values of teachers in the province of Tarlac*. Retrieved November 13, 2017, from https://www.peaklearning.com/wp-content/uploads/2019/05/PEAK_GRI_aquino.pdf.
- Artar, M. (2017). *Relationship between job satisfaction, organizational trust and work alienation*. Retrieved March 19, 2018, from https://www.researchgate.net/publication/321960585_Relationship_Between_Job_Satisfaction_Organizational_Trust_And_Work_Alienation
- Artar, M., & Erdil, O. (2017). *Relationship between job satisfaction, organizational trust and work alienation*. Conference proceedings of the ISMC 2017 13th International Strategic Management Conference (pp. 194-205). Kacaeli, Turkey. doi: <http://dx.doi.org/10.15405/epsbs.2017.12.02.17>
- Arya, M. L. (2017). A study of relationship between leadership styles of principal and teacher effectiveness. *International Journal of Science and Research (IJSR)*, 6(1), 2015–2017.
- Aryono, S.Y., & Karyanta, N.A. (2017). The relationship between adversity quotient and emotional maturity with tolerance to stress in students who love nature at the University of Eleven March. *Wacana*, 9(2).
- Ataş, Ö., & Ayık, A. (2013). Preservice teachers' school alienation. *International Periodical for the Languages, Literature and History of Turkish or Turkic*, 8(8), 103-122.
- Atreya, J. (1989). *A study of teachers values and job satisfaction in relation to their teaching effectiveness at degree college level* (Doctoral Dissertation). Department of Education, Agra University, India.
- Ayyappan, R. (2013). *A study of the effect of emotional education on adversity quotient among the secondary teacher trainees* (Doctoral dissertation, The Department of Education, Tamil University, Thanjavur, India). Retrieved September 1, 2019, from <http://hdl.handle.net/10603/279458>

- Babbitt, C. E., Burbach, H. J., & Thomson M. A. (1975). Organisational alienation among black college students. A comparison of three educational settings. *J. College Student Personnel*, 16(1), 53-56.
- Babu. A., & Kumari. M. (2013). Organizational climate as a predictor of teacher effectiveness. *European Academic Research*, 1(5). Retrieved May 3, 2017, from <http://www.euacademic.org>
- Babu, R. (1992). *Job satisfaction, attitude towards teaching, job involvement, efficiency of teaching and perception of organizational climate of teachers of residential and non-residential schools* (Doctoral Thesis). Department of Education, Sri Venkateshwar University, India.
- Babu, R., & Gnanaguru, S. A. (1997). Teacher effectiveness and involvement in teaching of commerce at higher secondary level in Tamil Nadu. *Journal of Education Research and Extension*, 34(2), 13-18.
- Bagarti, C., & Mishra, P.K. (2012). *Teacher educator: Inquiring into change proneness, role efficiency and job satisfaction at elementary level*. Latvia, European Union: LAP LAMBERT Academic Publishing.
- Bahri, S., & Farizal, F. (2020). The effects of adversity quotient and spiritual quotient on teacher performance. *Asian Journal of Science Education*, 2(1), 64-70.
- Bai, G.S. (2011). Teacher effectiveness of college teachers in relation to professional satisfaction. *Journal of Teacher Education and Research*, 6 (1).
- Bakare, B. M. (2015). *Students' adversity quotients and related factors as predictors of academic achievement in the West African senior school certificate examination in Southwestern Nigeria* (Doctoral dissertation, The University of Ibadan, Ibadan, Nigeria). Retrieved November 9, 2017, from https://www.peaklearning.com/documents/PEAK_GRI_bakare2.pdf.

- Barber, V. A. (2010). *A study of change readiness: Factors that influence the readiness of frontline workers towards a nursing home transformational change initiative* (Doctoral dissertation). St. John Fisher College, New York, USA.
- Bardach, L., & Klassen, R. M. (2020). Smart teachers, successful students? A systematic review of the literature on teachers' cognitive abilities and teacher effectiveness. *Educational Research Review*, 30, 100312.
- Baroa, E.D. (2015). *Adversity quotient and leadership skills of school administrators: Basis for leadership enhancement program* (Doctoral dissertation). Philippine Normal University Visayas, Negros Occidental, Philippines.
- Bansibihari, & Surwade, L. (2006). The Effect of emotional maturity on teacher effectiveness. *Edutracks*, 6(1), 37-38.
- Bantang, F.O.A., Bianes, N.J., Caguinjin, M.P., Estrella, P.M.C., & Macanlalay, C.K.M. (2013). *The relationship of personal characteristics and job satisfaction to adversity quotient of police officers in Manila police district* (Bachelor's Thesis, The Polytechnic University of the Phillipines, Manila, Phillipines). Retrieved November 2, 2017, from http://www.peaklearning.com/documents/PEAK_GRI_caguinjin.pdf.
- Barrera, N.L.P. (2011). *A study of job satisfaction, organizational commitment and readiness for change in public service employees*. Ann Arbor, MI: Proquest, Umi Dissertation Publishing. Retrieved February 11, 2017, from <http://search.proquest.com/docview/520520676?accounted=93481>. (520520676).
- Baumgartner, H., & Homburg, C. (1996). Applications of structural equation modeling in marketing and consumer research: A review. *International journal of Research in Marketing*, 13(2), 139-161.

- Bautista, M. J. C. (2015). Adversity quotient and teaching performance of faculty members. *International Journal of Scientific and Research Publication*, 5(3),1-6. Retrieved February 17, 2017, from <http://www.ijsrp.org/research-paper-0315.php?rp=P393810>
- Bentler, P.M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107 (2), 238-46.
- Bentler, P. M., & Bonnet, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88(3), 588-606.
- Berneke, J. S. (1971). A study of relationship of alienation to selected academic and behavioural variables in a high school student population. *Dissertation Abstracts International*, 31 (9).
- Bernshausen, D., & Cunningham, C. (2001). *The role of resiliency in teacher preparation and retention*. Retrieved May 27, 2017, from <https://eric.ed.gov/?id=ED451191>
- Besselink, M., & Oberleitner, D. E. (2019). *The impact of social isolation on copingstyle utilization*. (Master's thesis). Department of Psychology, University of Bridgeport, Bridgeport, CT.
- Bester, G., & Budhal, R. S. (2001). Social isolation: A learning obstacle in the primary school. *South African journal of education*, 21(4), 330-335.
- Bhardwaj, A. (2004). *Role of personality factors for teacher effectiveness*. Retrieved May 1, 2017, from <http://pbr.co.in/view.php?id=294>.
- Bhardwaj, J. S., & Pragya, S. (2013). Study of teacher effectiveness of senior secondary school teacher with regard to their personality type. *Journal of Teacher Education and Research*, 8(1).

- Bhardwaj, M. (2009). *A study of teacher effectiveness in relation to teaching styles and personality types of secondary school teachers* (Doctoral dissertation, The Department of Education, Panjab University, Chandigarh, India). Retrieved January 16, 2019, from <http://hdl.handle.net/10603/84841>
- Bhaskaran, V. (2011). *Alienation among industrial employees a sociological study* (Doctoral dissertation, The Department of Sociology, Karnatak University, Dharwad, India). Retrieved May 16, 2020, from <http://hdl.handle.net/10603/95819>
- Bhullar, K. (2019). Study of teacher effectiveness of secondary school teachers in relation to their personality type. *International Journal of Current Advanced Research*, 8(6), 19222-19225.
- Bin, Z.H.O.U. (2012). The post promotion policy of teachers: Its evolution, alienation and optimization. *Teacher Education Research*, (2), 1.
- Birney, L.B (1990). The relationship between innate teacher characteristics and secondary teacher retention. *Dissertation Abstracts International*, 125, A2929.
- Biswas, P.C., & De, T. (1995). A survey on effectiveness of secondary school teachers in Tripura. *Indian Journal of Psychology and Evaluation*, 26(1), 17-24.
- Biswas, R. (2017). *Personality emotional intelligence adversity quotient and achievement of teacher trainees in West Bengal*. Retrieved September 1, 2019, from <http://hdl.handle.net/10603/245414>
- Biswas, R., & Banerjee, D. (2016). Interplay of adversity quotient (AQ), attitude and achievement motivation in the B.Ed. trainee teachers. *Harvest- The Journal.1*, 1-23. ISSN 2456-6551.
- Bizumic, B., & Duckitt, J. (2018). Investigating right wing authoritarianism with a very short authoritarianism scale. *Journal of Social and Political Psychology*, 6 (1), 129-150.

- Blauner, R. (1964). *Alienation and freedom: The factory worker and his industry*. Chicago, IL: University of Chicago Press.
- Bondy, E., & McKenzie, J. (1999). Resilience building and social reconstructionist teaching: A first-year teacher's story. *The Elementary School Journal*, 100(2), 129-150.
- Boykin, A.W. & Noguera, P. (2011). *Creating the opportunity to learn: Moving from research to practice to close the achievement gap*. Alexandria, VA: ASCD.
- Branje, S. J. T., Lieshout, C. F. M. V., & Aken, M. A. G. V. (2004). Relations between Big Five personality characteristics and perceived support in adolescents' families. *Journal of personality and social psychology*, 86(4), 615.
- Bray-Clark, N., & Bates, R. (2003). Self-efficacy beliefs and teacher effectiveness: Implications for professional development. *Professional Educator*, 26(1), 13-22.
- Brindhamani, M., & Manichander, T. (2014). A study of attitude and effectiveness of primary school teachers in Trichy district. *Edutracks*, 14 (3).
- Brooks, J. S., Hughes, R., & Brooks, M. C. (2008). Fear and trembling in the American high school. *Educational Reform and Teacher Alienation. Educational Policy*, 22(1), 45–62.
- Browne, M. W., & Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociological Methods and Research*, 21, 230-258.
- Brown, S., & McIntyre, D. (1993). *Making sense of teaching*, ISBN 0-335-15795-5. Buckingham, United Kingdom: Open University Press.
- Brunetti, G. J. (2006). Resilience under fire: Perspectives on the work of experienced, inner city high school teachers in the United States. *Teaching and Teacher Education*, 22(7), 812-825.

- Çağlar, Ç. (2013). The relationship between the levels of alienation of the education faculty students and their attitudes towards the teaching profession. *Educational Science: Theory & Practice, 13*(3), 1507-1513.
- Callcehia, J.P., & Barresl, B.M. (1975). Alcoholism and alienation. *Journal of Clinical Psychology, 31*(4), 770-776.
- Campbell, R. J., Kyriakides, L., Muijsc, R. D., & Robinsona, W. (2004). Effective teaching and values: Some implications for research and teacher appraisal. *Oxford Review of Education, 30*(4), 451-465.
- Cando, J. M. D., & Villacastin, L. N. (2014). The relationship between adversity quotient (AQ) and emotional quotient (EQ) and teaching performance of college PE faculty members of CIT University. *International Journal of Sciences: Basic and Applied Research, 18*(2), 354-357.
- Canivel, L. D. (2009). *AQ and leadership style, performance and best practices* (Master's thesis, College of Education, University of the Philippines, Diliman, Quezon City, Phillippines). Retrieved May 20, 2017, from https://www.peaklearning.com/wp-content/uploads/2019/05/PEAK_GRI_canivel.pdf
- Canivel, L. D. (2010). *Principals' adversity quotient: Styles, performance and practices* (Masters' thesis). University of the Philippines, Diliman, Phillippines.
- Case, J.M. (2008). Alienation and engagement: Development of an alternative theoretical framework for understanding student learning. *Higher Education, 55*(3), 321-332.
- Chamberlain, S.P. (2003). An interview with Monica R. Brown, Tony D. Bright, and Jose "Pete" Montoya: Perspectives on adolescent alienation. *Intervention in school and clinic, 39*(1), 38-54.
- Chandler, H.N. (1983). The loneliness of the special education teacher. *Journal of Learning Disabilities, 16*, 126-127.

- Chau, P. (1997). Re-examining a model for evaluating information center success using a structural equation modeling approach. *Decision Sciences*, 28(2), 309-334.
- Chauvin, S. W. (1992). *An exploration of principal change facilitator style, teacher bureaucratic and professional orientations, and teacher receptivity to change* (Doctoral dissertation). Louisiana State University, Baton Rouge, LA.
- Chavez, M. (2000). Teacher and student gender and peer group gender composition in German foreign language classroom discourse: An exploratory study. *Journal of Pragmatics*, 32, 1019-1058.
- Cheng, S. I. (2011). Comparisons of competing models between attitudinal loyalty and behavioral loyalty. *International Journal of Business and Social Science*, 2(10), 149-166.
- Cheng, Y. C. (1996). Total teacher effectiveness: New conception and improvement. *International journal of educational management*, 10(6), 7-17.
- Chhaya. (1974). An investigation into certain psychological characteristics of effective school teachers. A comparative study of effective and ineffective teachers. In M.B. Buch (Ed.), *Second Survey of Research in Education* (pp. 427). Baroda, India: SERD.
- Chen, Y. M. (2000). *Feminization in writing pedagogy: A study of teacher's gender at EFL university composition classrooms* (Research Report, The National Chung Cheng University, Taiwan). Retrieved May 20, 2017, from <https://files.eric.ed.gov/fulltext/ED462847.pdf>
- Chiaburu, D. S., Diaz, I., & De Vos, A. (2013). Employee alienation: Relationships with careerism and career satisfaction. *J. Manag. Psychol.*, 28, 4-20.
- Choi, P. L., & Tang, S. Y. F. (2009). Teacher commitment trends: Cases of Hong Kong teachers from 1997 to 2007. *Teaching and Teacher Education*, 25(5), 767-777. doi: 10.1016/j.tate.2009.01.005

- Chudgar, A., & Sankar, V. (2008). The relationship between teacher gender and student achievement: Evidence from five Indian states. *A Journal of Comparative Education*, 38(5), 627-642.
- Chutima, H., Morgan, G.A., & Griego, O.V. (1997). An extension of the theory of margin: A framework for assessing readiness for change. *Human Resource Development Quarterly*, 9(4), 339-350. doi: 10.1002/hrdq.3920090405
- Clark, D. (1993). Teacher evaluation: A review of the literature with implications for educators. Proceedings of the Conference of California State University. Long Beach, NY.
- Clark, J. C., & Walsh, J. (2002). Elements of a model of effective teachers. In AARE 2002, *Problematic futures: Educational research in an era of uncertainty*. Proceedings of the conference of the Australian Association for Research in Education (pp. 1-11). Coldstream, Australia.
- Cochran-Smith, M. (2003). Sometimes it's not about money: Teaching and heart. *Journal of Teacher Education*, 54, 371–375.
- Collins, M., & Waugh, L. (2004). Teachers receptivity to a proposed system-wide educational change. *School Leadership and Management*, 17 (3). 401-11.
- Collins, S. J. (1995). *Perceived teacher effectiveness and psychological type: An exploratory study of New Zealand teachers* (Master's thesis, Massey University, Palmerston North, New Zealand). Retrieved May 21, 2019, from <https://mro.massey.ac.nz/handle/10179/11035>
- Collinson, V.R. (1996). *Teachers as learners: Exemplary teachers' perceptions of person and professional renewal* (Doctoral dissertation). Ohio State University, Columbus, OH.
- Collinson, V. (2008). Leading by learning: New directions in twenty-first century. *Journal of educational Administration*, 46(4), 443-460.

- Comadena, M. E. (1991). *Teacher use of power and teacher effectiveness: Comparing the perceptions of adult learners and traditional undergraduate students*. Paper presented at the Annual Meeting of the International Communication Association, Chicago, IL. Retrieved March 20, 2019, from <https://files.eric.ed.gov/fulltext/ED334610.pdf>
- Conley, D. T. (1993). Managing change in restructuring schools: Culture, leadership, and readiness. *OSSC Bulletin*, 36(7), 7.
- Conley, S., & Enomoto, E. K. (2005). Routines in school organizations: Creating stability and change. *Journal of Educational Administration*, 43(1), 9.
- Cornista, G.L., & Macasaet, C.A. (2013). *Adversity quotient and achievement motivation of selected third year and fourth year psychology students of De La Salle Lipa A.Y. 2012 – 2013*. Retrieved August 24, 2017, from http://www.peaklearning.com/documents/PEAK_GRI_cornista-macasaet.pdf
- Crocker, L., & Algina, J. (1986). *Introduction to classical and modern test theory*. Orlando, FL: Holt, Rinehart and Winston, Inc.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334.
- Cura, J. M., & Gozum, J. L. (2011). *A correlational study on adversity quotient® and the mathematics achievement of sophomore students of college of engineering and technology in University of Manila* (Bachelor's thesis, The University of the City of Manila, Manila, Philippines). Retrieved July 17, 2017, from http://www.peaklearning.com/documents/PEAK_GRI_gozum.pdf
- Cushman, P. (2005). It's just not a real bloke's job: Male teachers in the primary school. *Asia-Pacific Journal of Teacher Education*, 33(3), 321-338.
- Danielson, C. (1996). *Enhancing professional practice: A framework for teaching*. Alexandria, VA: ASCD.

- Danny, K. M. G. (2015). Adversity quotient and coping strategies of college students in lyceum of the Philippines university. *Asia pacific Journal of Education, Arts and Sciences*, 2(3).
- Darling-Hammond, L. (2006). *Powerful teacher education: Lessons from exemplary programs*. San Francisco, CA: John Wiley and Sons, Inc.
- Darling-Hammond, L., Newton, S. P., & Wei, R. C. (2013). Developing and assessing beginning teacher effectiveness: The potential of performance assessments. *Educational Assessment, Evaluation and Accountability*, 25(3), 179-204.
- Das, A. B. (1997). Impact of secondary teacher education programme on teacher effectiveness and teacher job satisfaction. *Teacher Education*, 115.
- Dass, P. (1995). *A study of teacher effectiveness in relation to intelligence, emotional maturity, self-concept and attitude towards teaching profession* (Doctoral Dissertation). Department of Education, Panjab University, Chandigarh, India.
- Datta, R. (2015). *Teacher effectiveness and related characteristics of trained secondary school teachers in West Bengal* (Doctoral dissertation, The University of Calcutta, Kolkata, India). Retrieved May 16, 2020, from <http://hdl.handle.net/10603/171451>
- Davis School District. (2010). *Effective teacher: Professionalism*. Retrieved June 10, 2019, from <https://resources.finalsite.net/images/v1525455000/davisk12utus/awa21nsmwe8xu97esny/MicroPD-Professionalism-Leader Notes.pdf>
- Day, C., Sammons, P., & Gu, Q. (2008). Combining qualitative and quantitative methodologies in research on teachers' lives, work and effectiveness: From integration to synergy. *Journal of Educational Researcher*, 37(6), 330-342, doi:10.3102/0013189X08324091.

- Deci, E. L., Schwartz, A. J., Sheinman, L., & Ryan, R. M. (1981). An instrument to assess adults' orientations toward control versus autonomy with children: Reflections on intrinsic motivation and perceived competence. *Journal of Educational Psychology, 73*(5), 642.
- Dee, T. S. (2004). Teachers, race and student achievement in a randomized experiment. *The Review of Economics and Statistics, 86*(1), 195-210.
- Deegan Jr, J. (1974). Specification error in causal models. *Social Science Research, 3* (3), 235-259.
- Deegan Jr, J. (1976). The consequences of model misspecification in regression analysis. *Multivariate Behavioral Research, 11*(2), 237-248.
- Deegan Jr, J. (1978). On the occurrence of standardized regression coefficients greater than one. *Educational and Psychological Measurement, 38*(4), 873-888.
- Dellow, K. (1998). *Looking beyond survival: A study of teacher resilience in a context of change* (Doctoral dissertation). Department of Educational Administration, University of Saskatchewan, Saskatoon, Canada.
- Deva, R.C. (1966). *Predication of student teaching success* (Doctoral dissertation). Aligarh Muslim University, Aligarh, India.
- Devakumar, M. (2012). Effectiveness of an adversity quotient enhancement program on gender- An experimental approach. In Nair, A.R., Gawali, G., Soloman, R.J., & Thiyagarajan, A.J. (Eds.), *Optimising positive strengths through life skills*. Proceedings of the 4th International Conference on Life Skills Education (pp. 625-632). Sriperumbudur, India.
- Devakumar, M.M. (2012). *A study of adversity quotient of secondary school students in relation to their academic self-concept and achievement motivation* (Doctoral Dissertation). University of Mumbai, Mumbai, India.
- DeVellis, R. F. (2016). *Scale development: Theory and applications*. Thousand Oaks, CA: Sage Publications Inc.

- Dhaliwal, S. K. (1996). *The effect of school organizational climate upon teacher effectiveness and job satisfaction of teachers* (Master's Thesis). Panjab University, Chandigarh, India.
- Dhillon, J. S., & Kaur, N. (2010). A study of teacher effectiveness in relation to their value patterns. *Recent Researches in Education and Psychology*, 15(5), 3-4.
- Dhillon, M. (2019). Alienation among school teachers in relation to job satisfaction and self-esteem. *International Journal of Arts Humanities and Social Sciences Studies*, 4(8), 74-80. Retrieved May 16, 2020, from <http://www.ijahss.com/Paper/04082019/1179495133.pdf>
- Dibapile, W. T. S. (2012). A review of literature on teacher efficacy and classroom management. *Journal of College Teaching & Learning – Second Quarter*, 9 (2), 79-91.
- Diwan, R. (2010). Small under resourced schools in India: Imperatives for quality improvement with reference to RTE Act, 2009. *Edusearch*, 1(2), 8-18.
- Doll, W. J., Xia, W., & Torkzadeh, G. (1994). A confirmatory factor analysis of the end-user computing satisfaction instrument, *MIS Quarterly* 18(4), 357-369.
- Doll, W. J., Xia, W., & Torkzadeh, G. (1994). A confirmatory factor analysis of the end-user computing satisfaction instrument. *MIS quarterly*, 453-461.
- Doray, M. B. A. (2005). *Gender differentiated discourse: A study of teacher discourse in the adult ESL classroom*. Retrieved May 15, 2017, from http://espace.library.cur-tin.edu.au/R?func=dbin-jump-full&object_id=16608&local_base=GEN01-ERA02
- Douglas, K. (2009). International reading association, sharpening our focus in measuring classroom instruction. *Journal of Educational Researcher*, 38(7), 518-521. doi: 10.3102/0013189X09350881.

- Driessen, G. (2007). The feminization of primary education: Effects of teachers' sex on pupil achievement, attitudes, and behavior. *Review of Education, 53*(2), 183-203.
- D'Souza, R. (2006). *A study of adversity quotient of secondary school students in relation to their school performance and the school climate* (Master's thesis, The Department of Education, University of Mumbai, Mumbai, India). Retrieved June 6, 2017, from www.peaklearning.com/documents/PEAK_GR I_dsouza.pdf
- D'Souza, Y., & Singh, A. (2006). *What employers want but business schools don't teach*. Mumbai, India: Jaico Publishing House.
- Dua, B. (2014). *A study of teacher effectiveness in relation to thinking style occupational stress and demographic variables of secondary school teachers* (Unpublished doctoral dissertation). The Faculty of Education, Dayalbagh Educational Institute (Deemed University), Agra, India.
- Duckworth, A. L., Quinn, P. D., & Seligman, M. E. (2009). Positive predictors of teacher effectiveness. *The Journal of Positive Psychology, 4*(6), 540-547.
- Dworkin, A. G., Saha, L. J., & Hill, A. (2003). Teacher burnout and perceptions of a democratic school environment. *International Education Journal, 4*(2), 108-120.
- Edwin, S.A. (1991). The perception of principals on teaching effectiveness and the midcareer teacher. *Dissertation Abstracts International, 52*(5), 1589-A.
- Egins, D.E. (1987). Teachers perceptions of the impact of the district of Columbia teacher center on teaching effectiveness. *Dissertation Abstracts International, 51*(6), 1989-A.
- Ekeyreena (2012). *Male teachers perform better in schools than female teachers*. Retrieved May 15, 2017, from <http://www.studymode.com/essays/Male-Teachers-Perform-Better-In-Schools-885195.html>

- Elaine, V.L. (2005). *Adversity quotient levels of female grade school teachers of a public and a private school*. Retrieved August 6, 2018, from http://www.peaklearning.com/documents/PEAK_GRI_villaver.pdf
- Ellsworth, J.B. (2000). *Surviving change: A survey of educational change models*. Syracuse, NY: ERIC Clearinghouse on Information and Technology.
- Ely, D. P. (1999). *New perspectives on the implementation of educational technology innovation*. 1-13. Retrieved February 21, 2017, from <https://eric.ed.gov/?id=ED427775>
- Enomoto, K. (2005). Routines in school organizations creating stability and change. *Journal of educational administration*, 43(1), 9-21.
- Enriquez, J. (2008). *The effect of a mentoring program on the AQs of college freshman* (Bachelor's thesis, The Fordham University, Bronx, NY). Retrieved July 6, 2017, from https://www.peaklearning.com/wp-content/uploads/2019/05/PEAK_GRI_enriquez.pdf
- Erbas, M. K. (2014). The relationship between alienation levels of physical education teacher candidates and their attitudes towards the teaching profession. *Australian Journal of Teacher Education*, 39(8), 37.
- Eren, A. (2014). Uncovering the links between prospective teachers' personal responsibility, academic optimism, hope, and emotions about teaching: A mediation analysis. *Social Psychology of Education*, 17(1), 73-104.
- Expósito, F., Herrera, A., Valor-Segura, I., Herrera, M. C., & Lozano, L. M. (2014). Spanish adaptation of the Illinois sexual harassment myth acceptance. *The Spanish Journal of Psychology*, 17(e40), 1-13.
- Eryılmaz, A., & Burgaz, B. (2011). Levels of organizational alienation of private and public high school Teachers. *Education & Science*, 36(161), 271-286.

- Ezugwu, G.G., & Ijeoma, C.V. (2011). *A review of teacher-effectiveness and students' academic achievement*. Retrieved July 15, 2018, from <https://www.slideshare.net/IjeomaChibuezeVictor/a-review-ofteachereffectivenessandst>
- Fabio, A.D., & Gori, A. (2016). Assessing Workplace Relational Civility (WRC) with a new multidimensional “mirror” measure. *Frontiers in psychology*, 7, 890.
- Feldman, K. (1987). Research productivity and scholarly accomplishment of college teachers as related to their instructional effectiveness: A review and exploration. *Res. Higher Educ.*, 26, 227-298.
- Ferrer, M. (2009). *Relationship of personal characteristics, leadership styles, and job satisfaction to adversity quotient® of academic heads of selected state colleges and universities in the national capital region* (Unpublished Doctoral Dissertation, The Polytechnic University of the Philippines, Manila, Philippines). Retrieved May 6, 2018, from http://peaklearning.com/documents/PEAK_GRI_ferrer.pdf
- Floyd, F. J., & Widaman, K. F. (1995). Factor analysis in the development and refinement of clinical assessment instruments. *Psychological assessment*, 7(3), 286.
- Franklyne, G.J. (1976). Alienation and achievement among Indians and non-Indians in the Markenzla district of the North-west territories, Alberta. *Journal of Educational Research*, 20 (2), 157-169.
- Fresko, B., Kfir, D., & Nasser, F. (1997). Predicting teacher commitment. *Teaching and Teacher Education*, 13(4), 429-438.
- Fromm, E. (1955). *The sane society*. New York, NY: Rinehart and Company.
- Fromm, E. (1962). *Beyond the chains of illusion: My encounter with Marx and Freud*. New York, NY: Simon & Schuster.

- Fryer, L. K., Ainley, M., Thompson, A., Gibson, A., & Sherlock, Z. (2017). Stimulating and sustaining interest in a language course: An experimental comparison of Chatbot and Human task partners. *Computers in Human Behavior, 75*, 461-468.
- Fuente, D., & Lee (1999). *Study of association between adversity quotient (AQ) and academic performance (GPA) among year 1 to year 3 biomedical science undergraduates*. Retrieved February 9, 2015, from <http://mayleng.wikispaces.com/file/view/complete.pdf>
- Fullan, M. G. (1993). Why teachers must become change agents. *Educational leadership, 50*, 12-12.
- Gagnon, M. P. (2003). *Psychosocial and organizational determinants of the adoption of telemedicine technologies in the Extended Quebec Telehealth Network* (Doctoral dissertation, The Faculty of Graduate Studies, Laval University, Quebec, Canada). Retrieved February 3, 2021, from <https://corpus.ulaval.ca/jspui/bitstream/20.500.11794/17869/1/21408.pdf>
- Gagnon, M. P., Godin, G., Gagne, C., Fortin, J. P., Lamothe, L., Reinharz, D., & Cloutier, A. (2003). An adaptation of the theory of interpersonal behaviour to the study of telemedicine adoption by physicians. *International journal of medical informatics, 71*(2-3), 103-115.
- Garg, M. N. (2019). Teacher effectiveness of college teachers with relation to self-efficacy and demographic variables. *Journal of the Gujarat Research Society, 21*(14), 571-579.
- Garrett, H. E. & Woodworth, R. S. (2007). *Statistics in psychology & education*. New Delhi, India: Paragon Publishing House.
- Garrett, R., & Steinberg, M. P. (2015). Examining teacher effectiveness using classroom observation scores: Evidence from the randomization of teachers to students. *Educational Evaluation and Policy Analysis, 37*(2), 224-242.

- Gay, J. L., Evenson, K. R., & Smith, J. (2010). Developing measures on the perceptions of the built environment for physical activity: A confirmatory analysis. *International Journal of Behavioral Nutrition and Physical Activity*, 7(1), 72.
- George, D., & Mallery, P. (2003). *SPSS for windows step by step: A simple guide and reference*. Boston, MA: Allyn & Bacon.
- Ghafar, M. N. A. (2009). *Educational research*. Skudai, Malaysia: UTM Malaysia press.
- Ghali, V. (2002). Factors affecting teacher effectiveness. *Edutracks*, 1(5), 35- 38.
- Gliem J.A., & Gliem R.R. (2003). Calculating, interpreting, and reporting cronbach's alpha reliability coefficient for likert-type scales. *Midwest Research to Practice Conference in Adult, Continuing, and Community Education, Columbus*, 82-88.
- Goel, S. (2012). *Teacher Effectiveness of school teachers in relation to their job satisfaction, personality, and mental health* (Doctoral dissertation). Department of Education, Panjabi University, Patiala, India.
- Goldhaber, D., & Anthony, E. (2007). Can teacher quality be effectively assessed? National board certification as a signal of effective teaching. *Review of Economics and Statistics*, 89 (1), 134-150.
- Goldhaber, D., Krieg, J., Theobald, R., & Brown, N. (2015). Refueling the STEM and special education teacher pipelines. *Phi Delta Kappan*, 97(4), 56–62.
- Gopinathan, S. (2006). Challenging the paradigm: Notes on developing an indigenized teacher education curriculum. *Journal of Improving Schools*, 9(3), 261-272. doi:10.1177/1365480206069020.
- Gordon, J. M. (1996). *Readiness for change among urban school principals: Leadership style and other potential influences* (Doctoral dissertation). Ball State University, Muncie, IN.

- Gordon, L. M. (2001). *High teacher efficacy as a marker of teacher effectiveness in the domain of classroom management*. Retrieved May 27, 2017, from <https://eric.ed.gov/?id=ED465731>.
- Grant, J. W., & Drafall, L. E. (1991). Teacher effectiveness research: A review and comparison. *Bulletin of the Council for Research in Music Education*, 108, 31-48.
- Grasty, D. G. (2002). *Teacher perceptions of alienation in collaborative versus non-collaborative classrooms* (Doctoral dissertation, The University of Virginia, Charlottesville, VA). Retrieved May 20, 2017, from <https://elibrary.ru/item.asp?id=5260149>.
- Gregory, J.P., & Rumberger, R. W. (2008). Teacher effectiveness in first grade: The importance of background qualifications, attitudes and instructional practices for student learning', USA. *Journal of Educational Evaluation and Policy Analysis*, 30(2), 111-140. doi:10.3102/0162373708317680).
- Grossman, H. (1990). *Trouble-free teaching: Solutions to behavior problems in the classroom*. Toronto, Canada: Mayfield Publishing.
- Gu, Q. (2014). The role of relational resilience in teachers' career-long commitment and effectiveness. *Teachers and Teaching*, 20(5), 502-529.
- Gu, Q., & Day, C. (2007). Teachers resilience: A necessary condition for effectiveness. *Teaching and Teacher education*, 23(8), 1302-1316.
- Gudapati, K. (2005). *A study of adversity quotient and leadership styles amongst managers in organizations* (Doctoral dissertation, The Department of Business Management, Swami Ramanand Teerth Marathwada University, Nanded, Maharashtra). Retrieved January 16, 2019, from <http://hdl.handle.net/10603/217368>
- Gupta, B.D. (1988). *Intelligence, adjustment and personality needs of effective teacher in science and arts* (Doctoral dissertation). Department of Education, Agra University, Agra, India.

- Gupta, G. (2013). *Teacher effectiveness in relation to stress, teaching aptitude, emotional intelligence and social intelligence* (Doctoral dissertation). Department of Education, Panjab University, Chandigarh, India.
- Gupta, P. (2005). *A study of values among school principals, their attitude towards Modernization and its relationship with the organizational climate* (Doctoral dissertation). Institute of Advanced studies in Education. J.M.I., New Delhi, India.
- Gupta, S. L., Prasad, D., & Ramachandaran, A. (2011). The effects of the attitudes of higher level education teachers towards teaching in India. *African Journal of Education and Technology*, 7(2), 112-124.
- Gupta, V.P. (1977). *Personality characteristics, adjustment level academic achievement and professional attitude of successful teacher* (Doctoral dissertation). Punjab University, Chandigarh, India.
- Gurney, P. (2007). Five factors for effective teaching. *Journal of Teachers' Work*, 4(2), 89-98.
- Gyeltshen, C., & Beri, N. (2018). Work place happiness: A tool for teacher effectiveness. *Indian Journal of Public Health Research & Development*, 9 (12), 1816-1820.
- Hadi, A. S. (1992). Identifying multiple outliers in multivariate data. *Journal of the Royal Statistical Society: Series B (Methodological)*, 54(3), 761-771.
- Hair, J. F. Jr., Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). *Multivariate data analysis* (3rd ed.). New York, NY: Macmillan.
- Hair, J. F. Jr., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Upper Saddle River, NJ: Pearson Education International.
- Halder, U. K., & Roy, R. R. (2018). Job satisfaction and teacher effectiveness of secondary school teachers. *International Journal of Innovative Research Explorer*, 5 (4), 47-61.

- Halder, U. K., & Roy, R. R. (2018). Teacher adjustment and teacher effectiveness of secondary school teachers. *International Journal of Innovative Research & Studies*, 8(4), 247-261. Retrieved May 16, 2019, from [https:// www.researchgate.net/ publication/327237751_ Teacher_Adjustment_and_ Teacher_ Effectiveness_of_ Secondary_ School_ Teachers](https://www.researchgate.net/publication/327237751_Teacher_Adjustment_and_Teacher_Effectiveness_of_Secondary_School_Teachers)
- Haller, H. E. (2008). *Adversity and obstacles in the shaping of prominent leaders: A Hermeneutic phenomenological inquiry* (Doctoral dissertation, The Gonzaga University, Spokane, WA). Retrieved August 10, 2017, from [http://www.peaklearning.com/ documents/PEAK_GRI_haller.pdf](http://www.peaklearning.com/documents/PEAK_GRI_haller.pdf)
- Hanspal, P., & Sahu, M. (2008). Teacher effectiveness in primary education and its relation with sex, experience and qualifications. *Modern Educational Research in India*, 2(1).
- Hargreaves, A. (1994). *Changing teachers, changing times: Teachers' work and culture in the postmodern age*. New York, NY: Teachers College Press.
- Harris, D. N., Ingle, W. K., & Rutledge, S. A. (2014). How teacher evaluation methods matter for accountability: A comparative analysis of teacher effectiveness ratings by principals and teacher value-added measures. *American Educational Research Journal*, 51(1), 73-112.
- Hashweh, M. Z. (2003). Teacher accommodative change. *Teaching and teacher education*, 19(4), 421-434.
- Hassan, M. A. A., & Musa, K. (2020). The relationship between professional learning community with teacher attitudes towards change. *International Journal of Academic Research in Business and Social Sciences*, 10(4).
- Hatcher, L. (1994). *A step-by-step approach to using the SAS system for factor analysis and structural equation modelling*. Cary, NC: SAS Publishing.
- Hativa, N., Barak, R., & Simhi, E. (2001). Exemplary university teachers: Knowledge and beliefs regarding effective teaching dimensions and strategies. *Journal of Higher Education*, 72(6), 699–729.

- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76(4), 408-420.
- Haynes, L., & Backell, B. (2011). First-class teaching: Building rapport between teachers and students. In Stewart, A. (Ed.). Proceedings of the JALT 2010 Conference. Tokyo, Japan.
- Hein, S. (2004). *Increasing emotional intelligence*. New York, NY: Basic Books. Retrieved October 10, 2017, from http://core.eqi.org/free_pdfs_from_eqi.htm
- Hema, G., & Gupta, S. M. (2015). Adversity quotient for prospective higher education. *The International Journal of Indian Psychology*, 4, 49-64.
- Henning, T. (2013). Alienation- New perspectives from environmental ethics, social philosophy, and action theory: An introduction. *Ethical Theory and Moral Practice*, 17(1), 7-11, 417-424.
- Hjelle, P. F. (2001). *Reading between the lines: Teacher resistance to change*. Philadelphia, PA: University of Pennsylvania Press.
- Hogen, E. A. O. (1994). *Exploring teacher change: A study of five first grade teachers immersed in three major areas of change* (Doctoral dissertation). Division of Curriculum and Instruction in Graduate School, University of South Dakota, Vermillion, SD.
- Holman, E. Riley, & Kumar, V. K. (1983). Imagination: Teachers' perceptions of what it is! Proceedings of the 6th Conference of Eastern Educational Research Association (pp. 1-12). Baltimore, MD.
- Hooper, D., Coughlan, J., & Mullen, M. (2008). Evaluating model fit: A synthesis of the structural equation modelling literature. Proceedings on the 7th European Conference on Research Methodology for Business and Management Studies (pp. 195-200). London, United Kingdom.
- Horney, K. (1939). *New ways in psychoanalysis*. New York, NY: W.W. Norton & Company, Inc.

- Horney, K. (1950). *Neurosis and human growth*. New York, NY: W.W. Norton & Company, Inc.
- Hota, B. (2013). *A study on self concept, change proneness and interest in teaching of Navodaya vidyalaya teachers* (Master's thesis). The Regional Institute of Education, Bhubneshwar, Odisha, India.
- Hoy, W. K., & Sweetland, S. R. (2000). School bureaucracies that work: Enabling, not coercive. *Journal of School Leadership*, 10(6), 525-541.
- Hu, B. C., & Li, Z. Z. (2010). Alienation and restoration of the relationship between university teachers and students from a perspective of the theory of communicative action. *Education & Modernization*, 2.
- Hu, L., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3, 424-453.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: A multidisciplinary journal*, 6(1), 1-55.
- Huang, S. L., & Fraser, B. J. (2009). Science teachers perceptions of the school environment: Gender differences. *Journal of Research in Science Teaching*, 46(4), 404-420.
- Hughes, R., Brooks, J. S., & Brooks, M. C. (2008). Fear and trembling in the American high school: Educational reform and teacher alienation. *Educational Policy*, 22(1), 45-62.
- Huijuan, Z. (2009). *The adversity quotient and academic performance among college students at St. Joseph's College, Quezon City* (Bachelor's thesis). Faculty of the Departments of Arts and Sciences, St. Joseph's College, Quezon City, Phillippines. Retrieved August 10, 2017, from [https:// www. peaklearning. com/ wp- content/ uploads/ 2019/ 05/ PEAK_ GRI_ huijuan. pdf](https://www.peaklearning.com/wp-content/uploads/2019/05/PEAK_GRI_huijuan.pdf)

- Hunt, G.H., Wiseman, D.G., Touzel, T.J., & Thomas, C.C. (2009). *Effective teaching: Preparation and implementation*. Springfield, IL: Charles C Thomas Publisher.
- Hung, A., & Liu, J. (1999). Effects of stay back on teacher's professional commitment. *International Journal of Educational Management*, 13(5), 226-241.
- Hung, H., (2013). *A study of relationship among emotion management, adversity quotient and teaching efficacy of elementary school teachers in Kaohsiung city*. Retrieved February 17, 2017, from <http://140.127.82.166/handle/987654321/16225>
- Hurlock, E.B. (1974). *Personality development*. New Delhi, India: Tata McGraw Publishing Company.
- Hussain, L., Khan, A. N., Shah, M., & Sibtain, M. (2011). Comparative effectiveness of male and female teachers as perceived by their students. *Interdisciplinary Journal of Contemporary Research in Business*, 2(12).
- Hussain, Y. B. (2000). *Teacher effectiveness: A Q-methodological analysis in key factors for teacher effectiveness in special educational needs teaching in Malaysia* (Doctoral dissertation). Centre for Educational Needs, School of Education, The University of Manchester, Manchester, United Kingdom.
- Imig, D. G., & Imig, S. R. (2006). The teacher effectiveness movement: How 80 years of essentialist control have shaped the teacher education profession. *Journal of Teacher Education*, 57(2), 167-180.
- Indriati, A. D. (2016). *The effect of adversity quotient and self-efficacy on the achievement motivation of fifth grade students in English lessons at SD "X" Surabaya* (Doctoral Dissertation). Airlangga University, Surabaya, Indonesia.
- Ingersoll, R. M. (2003). *Who controls teachers' work?: Accountability, power, and the structure of educational organizations*. Cambridge, MA: Harvard University Press.

- Jackson, D. W. (1974). Stage factors relating alienation and self-role diffusion. *Journal of Vocational Behaviour*, 5(2), 269-274.
- Jadama, L. M. (2014). Impact of subject matter knowledge of a teacher in teaching and learning process. *Middle Eastern & African Journal of Educational Research*, 7, 20-29.
- Jain, R. (2007). A study of teaching effectiveness of teachers and their attitudes towards teaching profession. *Journal of Indian Education*, 33(1), 77-89.
- Jain, R. C. (2015). *A comparative study of teachers proneness to change in relation to two types of organizational climate open and closed* (Doctoral dissertation, The Department of Education, Dr. Harisingh Gour Vishwavidyalaya, Sagar, India). Retrieved January 20, 2019, from <http://hdl.handle.net/10603/39261>
- Jain, S. (2012). *The study of perceived diversity climate and its impact on experienced work alienation and work family conflict of public sector employees* (Doctoral dissertation, The Department of Psychology, University of Delhi, Delhi, India). Retrieved May 16, 2020, from <http://hdl.handle.net/10603/28360>
- Jha, A., & Singh, I. (2012). Teacher effectiveness in relation to emotional intelligence among medical and engineering faculty members. *Europe Journal of Psychology*, 8(4), 668.
- Jha, M., & Grace, N. (2018). *Teacher effectiveness in relation to professional commitment and job satisfaction of secondary school teachers of Lucknow* (Doctoral dissertation). Allahabad School of Education, Sam Higginbottom University of Agriculture, Technology and Sciences, Allahabad, India.
- Johnson, M. B. (2005). *Optimism, adversity and performance: Comparing Explanatory style and AQ*. Retrieved August 10, 2017, from http://peaklearning.com/documents/PEAK_GRI_johnson.pdf
- Johnson Jr, B. L. (1991). *School centralization and organizational effectiveness: The role of teacher alienation* (Doctoral dissertation). Department of Education, Louisiana State University, Baton Rouge, LA.

- Johnson Jr, B. L., & Ellett, C. D. (1992). *Analyses of school level learning environments: Centralized decision-making, teacher work alienation and organizational effectiveness*. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA. Retrieved July 13, 2020, from <https://eric.ed.gov/?id=ED368043>
- Jones, D. (2003). The right kind of man: The ambiguities of re-gendering the early years school environment- the case of England and Wales. *Early Child Development and Care*, 173(6), 565-575.
- Jöreskog, K. G. (1999). *How large can a standardized coefficient be?*. Retrieved February 3, 2021, from <http://www.statmodel.com/download/Joreskog.pdf>
- Jöreskog, K. G., & Sorbom, D. (1979). *Advances in factor analysis and structural equation models*. New York, NY: University Press of America.
- Jöreskog, K. G., & Sorbom, D. (1993). *LISREL 8: Structural equation modeling with the SIMPLIS command language*. Lincolnwood, IL: Scientific Software International Inc.
- Joshi, A. (2015). *Teacher effectiveness in relation to personality types and adjustment of secondary school teachers* (Doctoral dissertation, The Department of Education, Guru Nanak Dev University, Amritsar, India). Retrieved March 18, 2018, from <http://hdl.handle.net/10603/150902>
- Joshi, R. (1988). *Study of creativity in relation to personality locus of control and alienation* (Doctoral dissertation, The Department of Psychology, Panjab University, Chandigarh, India). Retrieved May 16, 2020, from <http://hdl.handle.net/10603/83776>
- Ju, J.N. (1983). Student perceptions of teachers pupil control orientation and student alienation in junior high school of Tal Pel. The Republic of China. *Dlsth. Abst. International*, 44-A (8).

- Jung, J. Y. (2014). Modeling the occupational/career decision-making processes of intellectually gifted adolescents: A competing models strategy. *Journal for the Education of the Gifted*, 37(2), 128-152.
- Kagathala, A. B. (2002). A study of the effectiveness of teachers of secondary school in Gujarat. *Journal of Education and Psychology*, 59 & 60(3 & 4), 26-33.
- Kalra, R.K. (2010). Effect of gender and adjustment on teaching effectiveness of higher secondary teachers. *Indian Psychological Review*, 74(3), 141-146.
- Kamaraj, S. P. (1998). *A study on organisational climate job involvement job anxiety and job alienation of bank employees* (Doctoral dissertation, The Department of Social Work, Bharathiar University, Coimbatore, India). Retrieved May 16, 2020, from <http://hdl.handle.net/10603/101319>
- Kang, G.S. (1981). *A study of teacher effectiveness in relation to sex and locale* (Unpublished Master's thesis). Punjabi University, Patiala, India.
- Kanjanakaroon, J. (2011). Relationship between adversity quotient and self empowerment of students in schools under the jurisdiction of the office of the basic education commission. *International Journal of Learning*, 18(5), 349-360.
- Kashdan, T. B., Goodman, F. R., Machell, K. A., Kleiman, E. M., Monfort, S. S., Ciarrochi, J., & Nezlek, J. B. (2014). A contextual approach to experiential avoidance and social anxiety: Evidence from an experimental interaction and daily interactions of people with social anxiety disorder. *Emotion*, 14(4), 769.
- Katoch, A. (2017). *Organizational climate and occupational stress as predictors of teacher effectiveness at secondary school level* (Doctoral dissertation, The Department of Education, Himachal Pradesh University, Shimla, India). Retrieved May 11, 2020, from <http://hdl.handle.net/10603/203513>
- Katoch, K. (2011). Teacher effectiveness and temperament. *MIER Journal of Educational Studies, Trends and Practices*, 1(2).

- Kaur, H. (2013). *Relationship of teacher effectiveness with personality hardiness, job satisfaction and feminist identity* (Doctoral dissertation). Department of Education, Panjab University, Chandigarh, India.
- Kaur, H. (2015). *Organisational climate occupational stress and life satisfaction as correlates of teacher effectiveness among teacher educators* (Doctoral dissertation, The Department of Education, Punjabi University, Patiala, India). Retrieved on May 16, 2020, from <http://hdl.handle.net/10603/240384>
- Kaur, G. (2006). *Teacher effectiveness in relation to occupational stress and life skills*. (Doctoral dissertation). Department of Education, Panjab University, Chandigarh, India.
- Kaur, G. (2010). *Effect of school organizational climate on teaching efficiency and emotional intelligence of higher secondary school teachers, an investigation into dimensions of teacher effectiveness as perceived by secondary school* (Doctoral dissertation). Department of Education, Pt. R.S.U. University, Raipur, India.
- Kaur, G. (2011a). *Teacher effectiveness among secondary school teachers in relation to their morale and commitment* (Doctoral dissertation, The Department of Education, Panjab University, Chandigarh, India). Retrieved July 30, 2019, from <http://hdl.handle.net/10603/80865>
- Kaur, M. (2011b). Teacher effectiveness in relation to punctuality, of secondary school teachers. *The Sadbhavna- Research Journal of Human Development*, 1(2).
- Kaur, N. (2014). *Adversity quotient in relation to change readiness of executives working in telecom sector* (Doctoral dissertation, The School of Management Studies, Punjabi University, Patiala, India). Retrieved May 16, 2020, from <http://hdl.handle.net/10603/54456>

- Kaur, R (2013). *School effectiveness in relation to emotional intelligence, communication skills and change proneness of secondary school principals* (Doctoral dissertation). Department of Education, Panjab University, Chandigarh, India.
- Kaur, R., & Singh, K. (2015). Adversity quotient of higher education students in relation to achievement motivation and learning behaviour. *Man In India*, 97(23), 751-759.
- Kaur, S. (2012). *Correlates of teacher effectiveness*. Patiala, India: 21st Century Publications.
- Kauts, A., & Chechi, V. K. (2014). Teacher effectiveness in relation to type of institution, emotional intelligence and teaching experience. *Anadolu Journal of Educational Sciences International*, 4(2), 63.
- Kauts, A., & Hans, M. (2011). Study of teacher effectiveness and organisational climate in relation to emotional intelligence among teachers at secondary stage. *Gyanodaya: The Journal of Progressive Education*, 4(2).
- Kauts, A., & Sahni, A. (2007). *A study of teacher effectiveness in relation to emotional intelligence of teachers at secondary stage* (Master's thesis). Guru Nanak Dev University, Amritsar, India.
- Kauts, A., & Saroj, R. (2010). Study of teacher effectiveness and occupational stress in relation to emotional intelligence among teachers at secondary stage. *Journal of history and social sciences*, 1(1), 12-22.
- Kauts, D. S., & Kaur, R. (2016). Teacher effectiveness in relation to emotional intelligence and maturity of institutions among B. Ed. students. *Scholarly Research for Interdisciplinary Studies*, 3(8), 45-67.
- Kauts, D. S., & Mittu, G. (2011). Study of teacher effectiveness in relation to locus of control and stress of teacher educators. *Learning Community-An International Journal of Educational and Social Development*, 2(1), 25-33.

- Kavanagh, P. S., Signal, T. D., & Taylor, N. (2013). The Dark Triad and animal cruelty: Dark personalities, dark attitudes, and dark behaviors. *Personality and Individual Differences, 55*(6), 666-670.
- Kawabata, Y., Tseng, W. L., & Crick, N. R. (2014). Mechanisms and processes of and physical victimization, depressive symptoms, and children's relational-interdependent self-construals: Implications for peer relationships and psychopathology. *Development and Psychopathology, 26*(3), 619-634.
- Kelley, T. L. (1939). The selection of upper and lower groups for the validation of test items. *Journal of Educational Psychology, 30*(1), 17-24.
- Kenaszchuk, C., Reeves, S., Nicholas, D., & Zwarenstein, M. (2010). Validity and reliability of a multiple-group measurement scale for interprofessional collaboration. *BMC health services research, 10*(1), 1-15.
- Kennedy, E. J. (1993). *Principal leadership functions and teacher effectiveness* (Doctoral dissertation). Fordham University. Retrieved June 19, 2020, from <https://research.library.fordham.edu/dissertations/AAI9328415/>
- Khodabakhshzadeh, H., Hosseinnia, M., Moghadam, H. A., & Ahmadi, F. (2018). EFL teachers' creativity and their teaching's effectiveness: A structural equation modelling approach. *International Journal of Instruction, 11*(1), 227-238.
- Kim, H., Ku, B., Kim, J. Y., Park, Y. J., & Park, Y. B. (2016). Confirmatory and exploratory factor analysis for validating the phlegm pattern questionnaire for healthy subjects. *Evidence-Based Complementary and Alternative Medicine. Hindawi, e2696019*.
- Kim, Y. J., & Shute, V. J. (2015). The interplay of game elements with psychometric qualities, learning, and enjoyment in game-based assessment. *Computers & Education, 87*, 340-356.

- Kleiman, E. M., Chiara, A. M., Liu, R. T., Jager-Hyman, S. G., Choi, J. Y., & Alloy, L. B. (2017). Optimism and well-being: A prospective multi-method and multi-dimensional examination of optimism as a resilience factor following the occurrence of stressful life events. *Cognition and Emotion*, 31(2), 269-283.
- Kline, R. B. (2015). *Principles and practice of structural equation modeling*. New York, NY: Guilford Publications.
- Klomegah, R. Y. (2006). Social factors relating to alienation experienced by international students in the United States. *College Student Journal*, 40(2), 1-10.
- Ko, J., Sammons, P., & Bakkum, L. (2016). *Effective teaching: Report presented to Education Development Trust*. Retrieved June 13, 2018, from <https://www.educationdevelopmenttrust.com/EducationDevelopmentTrust/files/98/98ad6340-0ef6-4e1d-a541-db6018afce7d.pdf>
- Kothari, C. R., & Garg, G. (2014). *Research methodology methods and techniques* (3rd ed.). New Delhi, India: New Age International (P) Limited, Publishers.
- Kothari, D. S (1966). *Report of Education Commission Ministry of Education Government of India*. New Delhi, India.
- Koul, L. (2009). *Methodology of educational research* (4th ed.). New Delhi, India: Vikas Publishing House.
- Krishna, S. S., & Nightingale, M.A. (1994). *Understanding effective teaching*. New Delhi, India: University News, AIU.
- Krishnan, S. S., & Singh, J.R. (1995). Impact of teachers' sex, socio economic status and locale on teacher effectiveness. *The Progress of Education*, 99(8).
- Kulkarni, A. H. (2000). *A Comparative study of male and female secondary school teachers with respect to their personality traits, competency and teaching effectiveness* (Doctoral dissertation). Shivaji University, Kolhapur, India.

- Kulsum, U. (2000). *Kulsum teacher effectiveness scale*. New Delhi, India: Psycho-Educational testing Centre.
- Kulsum, U. (2011). *Manual for teacher effectiveness scale*. Agra, India: National Psychological Corporation.
- Kumar, D. (2006). *A study of professional stress burnout and alienation among college teachers of Himachal Pradesh* (Doctoral dissertation, The Department of Education, Himachal Pradesh University, Shimla, India). Retrieved January 16, 2019, from <http://hdl.handle.net/10603/127905>
- Kumari, S. (2006). *Study of alienation and job satisfaction of secondary school teachers of kumaun in relation to sex types of school and religiosity* (Doctoral dissertation, The Department of Education, Kumaun University, Nainital, India). Retrieved January 16, 2019, from <http://hdl.handle.net/10603/177713>
- Kushnan, J.W. (1992). The organizational dynamics of teacher workplace commitment: A study of urban elementary and middle schools. *Educational Administration Quarterly*, 28(1), 5-42.
- Kutlu, H., & Cansoy, R. (2020). Examining the relationship between school principals' power styles and teacher alienation. *Itobiad: Journal of the Human & Social Science Researches*, 9(1).
- Kyriacou, C. (2001). Teacher stress: Directions for future research. *Educational Review*, 53, 27– 35.
- Lacey, C. H., Saleh, A., & Gorman, R. (1998). *Teaching nine to five: A study of the teaching styles of male and female professors*. Retrieved May 27, 2019, from <https://eric.ed.gov/?id=ED442334>
- Lacourse, E., Villeneuve, M., & Claes, M. (2003). Theoretical structure of adolescent alienation: A multigroup confirmatory factor analysis. *Adolescence*, 38, 639-650.

- Lai, K., & Green, S. B. (2016). The problem with having two watches: Assessment of fit when RMSEA and CFI disagree. *Multivariate behavioral research*, 51(2-3), 220-239.
- Lang, D. (1985). Preconditions of three types of alienation in young managers and professionals. *Journal of Organizational Behavior*, 6(3), 171-182.
- Lang, K. (1964). *Alienation in J. Gould and W. Kelb: A dictionary of social sciences*. New York, NY: Free Press.
- Lathiya, C. P., & Bhogayata, C. (2016). *The relationship between the burnout and change proneness of the secondary school principals of Saurashtra* (Doctoral dissertation, The Department of Education, Maharaja Krishnakumarsinhji Bhavnagar University, Bhavnagar, India). Retrieved February 17, 2017, from <http://shodhganga.inflibnet.ac.in/handle/10603/86189>
- Lavigne, J. V., Hopkins, J., Gouze, K. R., & Bryant, F. B. (2015). Bidirectional influences of anxiety and depression in young children. *Journal of abnormal child psychology*, 43(1), 163-176.
- Lazaro-Capones, A. R. (2004). *Adversity quotient and the performance of selected middle managers of the different departments of the city of Manilla as revealed by the 360-degree feedback system*. Paper presented at the International Industrial Relations Association workshop, Seoul, Korea. Retrieved March 20, 2017, from http://www.peaklearning.com/documents/PEAK_GRI_capones.pdf
- Le, C. R. (2009). Building resilience in pre-service teachers. *Teaching and Teacher Education*, 25(5), 717-723.
- Levy, N.W. (2009). "...but It has Its Price": Cycles of alienation and exclusion among pioneering Druze women. *International Journal of Educational Development*, 29 (1) 46-55.
- Likert, R. A. (1932). A technique for the measurement of attitudes. *Archives of Psychology*, 22(140), 55.

- Lima-Rodríguez, J. S., Lima-Serrano, M., & Domínguez-Sánchez, I. (2015). Psychometric properties of an instrument to measure family disease management. *International Journal of Clinical and Health Psychology, 15*(3), 253-264.
- Linda, J. (1990). A study of the relationship of academic achievement, programme preparation, critical thinking ability and classroom performance of pre-service teachers in two selected universities in Georgia. *Dissertation Abstracts International, 51* (A), 1583.
- Liston, D., Whitcomb, J., & Borko, H. (2009). The end of education in teacher education: Thoughts on reclaiming the role of social foundations in teacher education. *Journal of Teacher Education, 60*(2), 107-112.
- Litwiller, B.J. (2014). *The relationship between sleep and work: A meta-analysis* (Doctoral dissertation, The Graduate Faculty, University of Oklahoma, Norman, OK). Retrieved February 3, 2021, from <https://shareok.org/bitstream/handle/11244/10396/FinalDissertation.pdf?sequence=2>
- Liu, L. (2011). *Men are from mars and women are from venus? - From the aspect of gender role, the interrelationships between AQ, work pressure, personal characteristic, and work performance*. Retrieved August 13, 2017, from http://libserver2.nhu.edu.tw/ETD-db/ETD-search/view_etd?URN=etd-1207111-111820
- Lloyd, K. J., Boer, D., & Voelpel, S. C. (2017). From listening to leading: Toward an understanding of supervisor listening within the framework of leader-member exchange theory. *International Journal of Business Communication, 54*(4), 431-451.
- Long, A. N. (2015). Exclusion within inclusion: The alienation and retention effects of black students on campus. *TRIO-McNair Scholars Undergraduate Research Journal, 2*(1), 29.

- Long, S. (1977). Academic disaffection and the university students. *Educational Students*, 3(1), 67-69.
- Lorenzo, C. (2009). Reconciling the tensions of new teachers' socialization into school culture: A review of the research. *Journal of Issues in Educational Research*, 19 (2).
- Low, J. (2010). *Resilience in academic administration: Leading higher education in times of change* (Doctoral dissertation). Florida State University, Tallahassee, FL.
- Loyd, D. E. (2004). *The effect of a screening instrument to determine teacher effectiveness as measured by academic gain scores* (Doctoral dissertation, The University of Tennessee, Knoxville, TN). Retrieved May 27, 2017 from https://trace.tennessee.edu/utk_graddiss/4532/
- MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods*, 1, 130-149.
- Madhusudhana, G., & Mani, P. (2010). Self evaluation of teaching by student trainees. *Edutracks*, 10(1), 40-41.
- Mahmood, A. C., & Hussain, I. (2017). Relationship between teacher empowerment and principal effectiveness at secondary school level. *International Journal of Learning and Teaching*, 9(4), 418-424.
- Mahne, K., & Huxhold, O. (2014). Grandparenthood and subjective well-being: Moderating effects of educational level. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 70(5), 782-792.
- Malhotra, L., & Bhatia, H.K. (2019). *Nexus between principal leadership behaviour & teacher effectiveness*. Retrieved July 30, 2020, from https://www.researchgate.net/publication/333079640_Nexus_between_Principal_Leadership_Behaviour_Teacher_Effectiveness

- Malik, M. I., & Akram, M. (2020). Effect of head teacher's effectiveness on school performance at secondary school level. *Journal of Educational Sciences*, 7(1), 76-97.
- Malik, U. (2009). Teaching effectiveness of secondary teachers in relation to their emotional intelligence. *Journal of Teacher Education and Research*, 4(2), 98-105.
- Malik, U., & Sharma, D.K. (2013). Teaching effectiveness of secondary school teachers in relation to their professional commitment. *International Educational e-Journal*, 2(4), 148-154.
- Mangalamma, H.S., & Vardhini, S.V. (2017). Relationship between teacher effectiveness of secondary school teachers and their attitude towards teaching profession. *International Journal of Advanced Educational Research*, 2(6), 169-172.
- Mann, S. (2001). Alternative perspectives on the student experience: Alienation and engagement. *Studies in Higher Education*, 26(1), 8-19.
- Marashi, H., & Fotoohi, M. (2017). The relationship between extrovert and introvert EFL teachers' adversity quotient and professional development. *Journal of Applied Linguistics and Language Research*, 4(3), 156-170.
- Marashi, H., & Naghibi, Z. (2020). Adversity quotient and classroom management among Iranian EFL teachers: An analysis of personality styles. *Journal of Modern Research in English Language Studies*, 7(4). doi: 10.30479/jmrels.2020.11880.1473
- Marashi, H., & Rashidian, S. (2018). EFL teachers' adversity quotient, personal growth initiative, and pedagogical success. *Journal of Teaching Language Skills*, 37(3), 93-139
- Marsh, H. W. (1995). Δ^2 and χ^2/df fit indices for structural equation models: A brief note of clarification. *Structural Equation Modeling*, 2, 246-254.

- Marsh, H.W., & Hattie, J. (2002). The relation between research productivity and teaching effectiveness: Complementary, antagonistic, or independent constructs?. *The Journal of Higher Education*, 73(5), 603- 641.
- Marsh, H.W., & Hau, K.T. (1996). Assessing goodness of fit: Is parsimony always desirable? *The Journal of Experimental Education*, 64, 364-390.
- Marsland, E. (2000). An examination of the role of the multiple intelligence in studies of effective teaching. *Dissertation Abstracts International*, 39(3), 639.
- Martin, N. K., & Yin, Z. (1997). *Attitudes and beliefs regarding classroom management style: Differences between male and female teachers*. Paper presented at the 20th annual meeting of the Southwest Educational Research Association, Austin, TX. Retrieved May 23, 2019, from <http://files.eric.ed.gov/ED404738.pdf>
- Martin, N. K., Yin, Z., & Baldwin, B. (1998). *Classroom management training, class size and graduate study: Do these variables impact teachers' beliefs regarding classroom management style?* Paper presented at the meeting of the American Educational Research Association, San Diego, CA.
- Martinez, A. N., Valdez, C., & Cariaga, S. (2016). Solidarity with the people: Organizing to disrupt teacher alienation. *Equity & Excellence in Education*, 49(3), 300-313.
- Martinez-Ponz, M. (1990). *Test of a three-factor model of teacher commitment*. Paper presented at the New England Educational Research Organization, Maine, ME. Retrieved September 3, 2018, from <https://files.eric.ed.gov/fulltext/ED328546.pdf>
- Marx, K. (1932). *Economic-philosophical manuscripts, Marx-Engels complete edition*. Berlin, Germany: Dietz Verlag Germany.
- Marx, K. (1968). Economic-philosophical manuscripts from 1844. *Dietz*, 40(4), 443.

- Marzano, R. J. (2007). *The art and science of teaching: A comprehensive framework for effective instruction* (1st ed.). Alexandria, VA: Association for Supervision and Curriculum.
- McBer, H. (2000). *Research into teacher effectiveness: A model of teacher effectiveness* (Research Report No. 216). Nottingham, United Kingdom: Department for Education and Employment. Retrieved May 24, 2019, from <http://dera.ioe.ac.uk/4566/1/RR216.pdf>
- McBer, H. (2000). Research into teacher effectiveness. *Early Professional Development of Teachers*, 68(216), 1-69.
- McDonald, R. P., & Marsh, H. W. (1990). Choosing a multivariate model: Noncentrality and goodness-of-fit. *Psychological Bulletin*, 107, 247-255.
- McDowell, E. E. (1993). *An exploratory study of GTA's attitudes toward aspects of teaching and teaching style*. Paper presented at the Annual Meeting of the Speech Communication Association, Miami Beach, FL. Retrieved May 20, 2019, from <https://files.eric.ed.gov/fulltext/ED370147.pdf>
- McLellan, R. (2006). The impact of motivational “world-view” on engagement in a cognitive acceleration programme. *International journal of science education*, 28(7), 781-819.
- McLellan, R., & Adey, P. (1999). *Motivational style, commitment, and cognitive acceleration: Is it only good schools which opt into “successful” projects?*. Paper presented at the Annual Meeting of the American Educational Research Association, Montreal, Quebec, Canada. Retrieved June 21, 2018, from <https://eric.ed.gov/?id=ED431799>
- Medley, D.M. (1982). *Teacher effectiveness, encyclopaedia of educational research* (5th ed.). New York, NY: The Free Press.
- Mendoza, S.J.S., & Lara, P.Z.M.D. (2007). The impact of work alienation on organizational citizenship behavior in the Canary Islands. *International Journal of Organizational Analysis*, 15(1), 56-76.

- Miller, R. (1967). *Change-proneness is the congregational effect of curiosity open mindedness and mental flexibility* (pp. 28-33). New York, NY: Mc-Grew Hill and Co.
- Mirghasemi, S. J., Sameri, M., & Hassani, M. (2015). A study on the student alienation through monitoring cultural capital, economical capital and social capital of students in Urmia university of medical sciences in academic year 2013-2014. *The Journal of Urmia Nursing and Midwifery Faculty*, 13(5), 417-424.
- Mishra, C.P. (1999). *Teachers effectiveness of elementary school teachers in relation to their attitude towards teaching, level of aspiration and job satisfaction* (Doctoral dissertation). Department of Education, Kurukshetra University, Kurukshetra, India.
- Mohalik, R.K. (2007). *Impact of in-service teacher education programmes on teacher effectiveness and students' achievement in English* (Doctoral dissertation). Department of Education, Utkal University, Bhubaneswar, India.
- Money, S. M. (1992). *What is teaching effectiveness? A survey of student and teacher perceptions of teacher effectiveness*. Retrieved August 11, 2020, from <https://files.eric.ed.gov/fulltext/ED351056.pdf>
- Mottaz, C. J. (1981). Some determinants of work alienation. *The Sociological Quarterly*, 22(4), 515-529.
- Mueller, R. O., & Hancock, G. R. (2010). Structural equation modeling. In G. R. Hancock & R. O. Mueller (Eds.), *The reviewer's guide to quantitative methods in the social sciences* (pp. 371-384). New York, NY: Routledge.
- Mukhopadyay, M. (1980). Change proneness of teachers. *Journal of Indian Education, New Delhi, NCERT*. ISSN 2277-4262.
- Mukhopadhyay, M. (2012). *Manual for change proneness inventory*. Agra, India: National Psychological Corporation.

- Mukhopadhyay, M., & Saxena, S. (1980). *The factors contributing Teachers change proneness- A study*. Bhopal, India: RCE Bhopal, NCERT.
- Mullola, S., Ravaja, N., Lipsanen, J., Alatupa, S., Hintsanen, M., Jokela, M., & Keltikangas-Järvinen, L. (2012). Gender differences in teachers' perceptions of students' temperament, educational competence, and teachability. *British Journal of Educational Psychology*, 82, 185-206.
- Munro, J. (1999). Learning more about learning improves teacher effectiveness. *School Effectiveness and School Improvement*, 10(2), 151-171.
- Muranda, A. Z., Ncube, A. C., Mapolisa, T., & Tshabalala, T. (2015). The impact of teacher motivation on teacher effectiveness in Bubi district of Zimbabwe. *Journal of Education, Society and Behavioural Science*, 7(3), 202-210.
- Murphy, K. R., & Davidshofer, C. O. (1998). *Psychological testing: Principles & applications* (4th ed.). Upper Saddle River, NJ: Prentice-Hall.
- Mutha, D.N. (1980). *An attitudinal and personality study of effective teachers* (Doctoral dissertation). Department of Psychology, Jodhpur University, Jodhpur, India.
- Mwivanda, M., & Kingi, P. M. (2019). Teachers' adversity quotient dimension of control and students academic performance in secondary schools in Kenya. *Journal of Education and Training*, 6(1), 83-94.
- Naik, N. (1978). Study of alienation among bank employees. *The Journal of social work*, 3, 244-257.
- Napire, J. N. (2013). *Adversity quotient and leadership style in relation to the demographic profile of the elementary school principals in the second Congressional District of Camarines Sur* (Master's thesis). Department of Education, University of Northeastern Philippines, Iriga City, Phillipines.

- Nelson, A. (1998). It's all in approach: Making education and career connection. Retrieved from November 2, 2017, from (ERIC) Document Reproduction Service, No EJ 563604.
- Netemeyer, R. G., Bearden, W. O., & Sharma, S. (2003). *Scaling procedures: Issues and applications*. Thousand Oaks, CA: Sage Publications.
- Newa, D. (2007). *Teacher effectiveness in relation to work satisfaction, media utilization and attitude towards the use of information and communication technology among secondary school teachers of Nepal* (Doctoral dissertation). Department of Education, Panjab University, Chandigarh. Retrieved May 10, 2019 from <http://hdl.handle.net/10603/80762>
- Ngom, M. R. (2004). *The paradox of schooling: Alienation or enlightenment? The intersection of class, race, and gender for teacher practices in urban schools: A critical investigation of the socioeconomic status of teachers and their expectations of inner-city students* (Doctoral dissertation). University of Missouri, Kansas City, MO. Retrieved May 20, 2017, from <https://elibrary.ru/item.asp?id=5709999>
- Nikam, V. B., & Uplane, M. M. (2013). Adversity quotient and defense mechanism of secondary school students. *Universal Journal of Educational Research*, 1(4), 303-308.
- Novack, V.A (1999). The relationship of institutional diversity efforts and Job satisfaction in higher education student affairs. *Dissertation Abstracts International*, 60(A), 1938.
- Nuran, A.A. (2018). Examining the dimensions of work alienation in terms of demographic factors. *Isletme Bilimi Dergisi Journal*, 3, 175-197.
- Ojha, H. (2010). *Manual for alienation scale*. Agra, India: National Psychological Corporation.

- Okwarachukwu, A. C. (2012). *Comparative analysis of the effectiveness of biology teachers in public and private secondary schools in Aba educational zone of Abia state*. Retrieved May 17, 2019, from <http://spgs.imsu.edu.ng>
- Olatoye, R. A., & Aanu, E. M. (2011). Senior secondary school science teachers' perception of using students to evaluate teaching effectiveness. *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)*, 2(3), 164-170. Retrieved May 18, 2019, from <http://jeteraps.scholarlinkresearch.org>
- Olila, R.G. (2012). *Adversity quotient and personal characteristics as correlates of the personality-Temperament traits of educators in selected public and private educational institutions* (Unpublished Doctoral Dissertation). The Faculty of the School of Graduate Studies, Manuel L. Quezon University, Manila, Philippines.
- Ololube. N. P. (2006). Teachers job satisfaction and motivation for school effectiveness: An assessment. *Essays in Education*, 18, 1-19. Retrieved May 23, 2019, from <http://www.usca.edu>
- Omoteso, B. A., & Semudara, A. (2011). The Relationship between teachers' effectiveness and management of classroom misbehaviours in secondary schools. *Psychology*, 2(9), 902-908. doi:10.4236/psych.2011.29136
- Oscarson, D. J. (1977). The identification of adoption-proneness among secondary home economics teachers. *Home Economics Research Journal*, 6(2), 141-147.
- Oscarson, D. J., Finch, & Curtis R. (1980). Adoption-proneness among trade and industrial teachers as measured by cluster analysis. *Journal of Industrial Teacher Education*, 17(4), 20-27.
- Ostovar-Nameghi, S. A., & Sheikahmadi, M. (2016). From teacher isolation to teacher collaboration: Theoretical perspectives and empirical findings. *English Language Teaching*, 9(5), 197-205.

- Ouazad, A., & Page, L. (2012). *Students' perceptions of teacher biases: Experimental economics in schools*. Retrieved May 27, 2019, from <http://cee.lse.ac.uk/ceedps/ceedp133.pdf>
- Oviawe, J. I. (2016). Teachers' effectiveness as correlates of students' academic achievement in basic technology in Nigeria. *International Journal of Academic Research in Progressive Education and Development*, 5(2), 111-119.
- Pace, G. (1992). Stories of teacher-initiated change from traditional to whole-language literacy instruction. *The Elementary School Journal*, 92(4), 461-476.
- Pachaiyappan, P., & Raj, D. U. (2014). Evaluating the teacher effectiveness of secondary and higher secondary school teachers. *IOSR Journal of Research & Method in Education (IOSR-JRME)*, 4(1), 52-26.
- Padala, S. R. (2014). Lecturer's morale and change proneness. *National Monthly Refereed Journal of Research in Commerce & Management*, 3, 2277-1166.
- Padhi, S.K., & Verma, J. (2011). Effectiveness of secondary school teachers in relation to emotional intelligence and life satisfaction. *Edutracks*, 11(2), 20-25.
- Padmanabhaiah, S. (1986). Job satisfaction and teaching effectiveness of secondary school teachers. In M.B. Buch, 1991 (Ed.) *Fourth Survey of Research in Education*. NCERT, New Delhi, India.
- Paite, V. (2014). *Emotional intelligence and teacher effectiveness among high school teachers in Lunglei district of Mizoram* (Doctoral dissertation, Department of Education, North-Eastern Hill University, Shillong, India. Retrieved May 16, 2020, from <http://hdl.handle.net/10603/194754>
- Pal, S. (2003). *Job involvement work alienation and quality of work life a study on public and private sector managers* (Doctoral dissertation, Department of Applied Psychology, University of Calcutta, Kolkata, India). Retrieved May 16, 2020, from <http://hdl.handle.net/10603/165228>

- Pama, A. B., Dulla, L. B., & Leon, R. C. D. (2013). Student evaluation of teaching effectiveness: Does faculty profile really matter? *Catalyst*, 8(1), 94-102.
- Pan, A. (2014). A study on professional competency in relation to self efficacy of madrasa teachers in West Bengal. *International Journal for Research in Education*, 3(4), 26-31.
- Park, S. (2014). Motivation of public managers as raters in performance appraisal: Developing a model of rater motivation. *Public Personnel Management*, 43(4), 387-414.
- Parvathy, U., & Praseeda, M. (2014). Relationship between adversity quotient and academic problems among student teachers. *Journal of Humanities and Social Science*, 19(11), 23-26.
- Pandey, M., & Maikhuri R. (1999). A study of the attitude of effective and ineffective teachers towards teaching profession, *Indian Journal of Psychometry and Education*, 30(1), 43-46.
- Panneerselvan, R. (2011). *Research methodology* (9th ed.). New Delhi, India: PHI Learning Private Limited.
- Patdo, V., Mariaono, K.C., & Gonzales, A. D. (2011). *The Adversity quotient of parents with special children and adversity quotient of parents with normal children*. Retrieved January 20, 2017, from [http:// www. peaklearning. com/ documents/ PEAK_ GRI_ patdo.pdf](http://www.peaklearning.com/documents/PEAK_GRI_patdo.pdf)
- Patel, L. (2013). A study of change proneness of primary school teachers. *International Journal of Creative Research Thoughts*, 1(7).
- Patil, G.G., & Deshmukh, D.V. (1993). A Study of the relationship between aptitude in teaching and teaching efficiency of pupil teacher. *Research Bulletin, Maharashtra state Council of Educational Research and Training*. 23 (1&2), 9-13.

- Patrick, J., & Smart, R. M. (1998). An empirical evaluation of teacher effectiveness: The emergence of three critical factors. *Assessment & Evaluation in Higher Education, 23*(2), 165-178.
- Peri, S. R. (1985). *A study of relationship between teacher effectiveness, ability to publish, and self-concept* (Unpublished Doctoral dissertation). Department of Education, Andhra University, Visakhapattanam, India.
- PEAK Learning, Inc. (2000). *Adversity quotient*. Retrieved November 10, 2017, from <https://www.peaklearning.com>
- Petegem, K. V., Creemers, B. P. M., Rossel, Y., & Aelterman, A. (2005). Relationships between teacher characteristics, interpersonal teacher behaviour and teacher wellbeing. *Journal of Classroom Interaction, 40*(2), 34-43.
- Phoolka, S. (2014). *Adversity quotient in relation to change readiness of executives working in telecom sector* (Doctoral dissertation, The School of Management Studies, Punjabi University, Patiala, India). Retrieved May 27, 2019, from <http://hdl.handle.net/10603/54456>
- Phoolka, S., & Kaur, N. (2012). Adversity quotient: A new paradigm to explore. *International Journal of Contemporary Business Studies, 3*(4), 67-78.
- Pligge, M. A., Kent, L. B., & Spence, M. S. (2000). *Examining teacher change within the context of mathematics curriculum reform: Views from middle school teachers*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA. Retrieved August 17, 2019, from <https://eric.ed.gov/?id=ED443726>
- Potvin, G., Hazari, Z., Tai, R. H., & Sadler, P. M. (2008). Unravelling bias from student evaluations of their high school science teachers. 1-19. doi:10.1002/sce.20332.

- Praditsang, M., & Hanafi, Z. (2013). Relationship between adversity quotient and learning behaviour among fourth year students at Songkhla Rajabhat university. *International Proceedings of Economics Development and Research*, 66, 27-32.
- Prakasham, D. (1988). A study of teacher effectiveness as a function of school organisational climate and teaching competency. *Fifth Survey of Educational Research*, 92(2), 1465-1466.
- Prasad, K.B. (1996). *Impact of mental health status temperament and alienation on teacher effectiveness* (Doctoral dissertation, The department of Education, Manonmaniam Sundaranar University, Tirunelveli, India). Retrieved January 7, 2017, from <http://hdl.handle.net/10603/65662>
- Priya, A.H.S. (2016). *Psychological correlates of adversity quotient in teachers* (Doctoral dissertation, The department of Education, University of Madras, Chennai, India). Retrieved February 6, 2020, from <http://hdl.handle.net/10603/254289>
- Pugh, K. J., & Zhao, Y. (2003). Stories of teacher alienation: A look at the unintended consequences of efforts to empower teachers. *Teaching and Teacher Education*, 19(2), 187-201.
- Punitha, M. A. (2020). Relationship between adversity quotient and academic achievement in mathematics among student teachers. *Purakala UGC CARE Journal ISSN 0971-2143*, 31(12), 14-21.
- Puri, S. (2008). *Study of teacher effectiveness of teacher educators in relation to cognitive and non-cognitive variables* (Doctoral dissertation). Department of Education, Panjab University, Chandigarh, India.
- Pushpam, L.M.A., & Soundararagan, R. (2004). Study of teaching competency of science teachers at higher secondary level, *Journal of Educational Research and Extension*, 41(1), 13-22.

- Raja, B. W. D., & Thiagarajan, A. P. (1998). School organisational climate and teacher effectiveness of boys' higher secondary schools in Tuticorin. *Indian Journal of Psychometry and Education*, 29(1), 25-30.
- Raju, D.V.V.K. (1994). *A study of teachers stress in relation to teacher effectiveness and teacher attitudes* (Doctoral dissertation). Department of Education, Andhra University, Visakhapatnam, India.
- Raju, T. J. M. S. (2012). Change proneness in relation to origin-pawn ideology among secondary school teachers. *International Journal of Behavioural Social and Movement Sciences*, 1(2), 71-80.
- Raju, T. J. M. S. (2013). Relation between change-proneness and teacher motivation among degree college teachers. *International Educational Journal*, 2(2), 20-25.
- Raju, T. J. M. S. (2017). Change proneness in relation to teacher efficacy among secondary school teachers. *Conflux Journal of Education*. 5(3), 13-19.
- Rajyam, V.L. (2014). *A study of job satisfaction and teacher effectiveness of Kendriya Vidyalaya teachers Faculty of Education* (Doctoral dissertation, The Faculty of Education, Osmania University, Hyderabad, India). Retrieved May 16, 2020, from <http://hdl.handle.net/10603/199952>
- Ralph, P., Baltes, S., Adisaputri, G., Torkar, R., Kovalenko, V., Kalinowski, M., & Alkadhi, R. (2020). Pandemic programming. *Empirical Software Engineering*, 25(6), 4927-4961.
- Ramkrishna, & Phogat, V. (2017). *Teacher effectiveness of secondary school teachers in relation to their self esteem and digital competence*. Retrieved June 13, 2020, from http://www.theeducationalbeacon.com/images/teacher_effective.Pdf
- Rao, D.B., & Kumar, D.N. (2004). *School teacher effectiveness*. New Delhi, India: Discovery Publishing House.

- Rao, N. (2009). A comparative study of teacher effectiveness of regular and shikshakarmi teachers of middle school. *Modern Educational Research in India*, 6(3),41-43.
- Rao, U.N. (1997). *A study of origin-pawn ideology as a component of teacher empowerment and its impact on school effectiveness*. Paper presented at the Regional Seminar on Research in Teacher Empowerment and School Effectiveness at the Primary Stage, Regional Institute of Education, Mysore, India. Retrieved on March 20, 2020, from <http://ir.riemysore.ac.in:8080/jspui/bitstream/123456789/238/1/Teacher%20empowerment%20and%20teacher%20effectiveness.pdf>
- Rao, U.N. (1999). *A study of change proneness as influencing factors to determine enhances school effectiveness*. Paper presented at the Regional Seminar at Regional College of Education, NCERT, New Delhi, India.
- Rao, P.T (1987). *Classroom teaching of effective science teacher- An analytical study* (Unpublished doctoral dissertation). Department of Education, Maharaja Sayajirao University, Baroda, India.
- Rashidi, N., & Naderi, S. (2012). The effect of gender on the patterns of classroom interaction. *Education*, 2(3), 30-36.
- Rashidi, N., & Rad, M. R. (2010). Analyzing patterns of classroom interaction in EFL classrooms in Iran. *The Journal of Asia TEFL*, 7(3), 93-120.
- Rathee, N., & Sharma, S. (2018). Adversity quotient among high school students in relation to demographic variables. *International Journal of Humanities and Social Science Invention*, 7(5), 33-36.
- Raykov, T., & Mels, G. (2009). Interval estimation of interitem and item-total correlations for multiple component measuring instruments with ordinal items. *Structural Equation Modeling: A Multidisciplinary Journal*, 16(1), 99-108.

- Raza, S. A. (2010). Impact of organizational climate on performance of college teachers in Punjab. *Journal of College Teaching and Learning*, 7, 47-51. Retrieved May 10, 2017, from <http://pr.hec.gov.pk/Thesis/201S.pdf>
- Reddy, P.A. (1993). Adult education instructor: Determinants of his effectiveness, *Journal of Education*, 18(5),40-45.
- Reyes, P., & Fuller, E.J. (1995). *The effects of selected elements of communal schools and middle and high school mathematics achievement*. Retrieved January 11, 2017, from https://www.semanticscholar.org/paper/The-Effects-of-Selected-Elements-of-Communal-on-and-Reyes-Fuller/6f590d3d749f348b7990_c022b012a5d3bc49a8ec# citing-papers.
- Reynolds, D., & Muijs, D. (1999). The effective teaching of mathematics: A review of research. *School Leadership & Management*, 19(3), 273-288.
- Ribeaud, D., & Eisner, M. (2006). The ‘drug–crime link’ from a self-control perspective: An empirical test in a Swiss youth sample. *European Journal of Criminology*, 3(1), 33-67.
- Rice, C. J., & Goessling, D. P. (2005). Recruiting and retaining male special education teachers. *Remedial and Special Education*, 26(6), 347-356.
- Rice, J. K. (2003). *Teacher quality: Understanding the effectiveness of teacher attributes*. Washington, DC: Economic Policy Institute.
- Richardson, B. P. (1993). *Teacher alienation: Empowerment and social connectedness in an alternative high school* (Doctoral dissertation). University of Wisconsin-Madison, Wisconsin, WI.
- Ringle, C. M., Wende, S., & Becker, Jan-Michael. (2015). *SmartPLS 3. Bönningstedt: SmartPLS*. Retrieved August 30, 2018, from <http://www.smartpls.com>

- Riti (2010). *A study of teacher effectiveness in relation to school organizational climate and administrative behaviour of school heads of Himachal Pradesh* (Unpublished doctoral dissertation). Department of Education, Punjabi University, Patiala, India.
- Rizvi, S. A. A. (2003). *Assessment of teacher effectiveness. An approach to develop a system of assessment of teacher effectiveness* (Doctoral dissertation, Hamdard University, Karachi, Pakistan). Retrieved October 20, 2017, from <http://pr.hec.gov.pk/Chapters/2705H-0.pdf>
- Roben, C. K., Cole, P. M., & Armstrong, L. M. (2013). Longitudinal relations among language skills, anger expression, and regulatory strategies in early childhood. *Child development, 84*(3), 891-905.
- Robert, W.R., Sarah. E., & Jacquelynne, E. (2009). *A portrait of motivation, mental health, and family experience* (Doctoral dissertation). Institute for Social Research, University of Michigan, Ann Arbor, MI.
- Rogers, E. M. (1995). *Diffusion of Innovations* (4th ed.). New York, NY: Free Press.
- Roman-Oertwig, S. (2004). *Teacher resilience and job satisfaction* (Doctoral dissertation). University of North Carolina at Chapel Hill, Chapel Hill, NC.
- Rosenholtz, S.J. (1989). *Teacher's workplace: The social organization of schools*. New York, NY: Teachers College Press.
- Rotter, J.B. (1966). Generalized expectancies for Internal versus external control of reinforcement. *Psychological Monographs, 80*(1), 609.
- Roul, S.K. (2002). *A comparative study of teacher effectiveness of autonomous and non-autonomous college teachers in relation to their mental health, organisational climate and student achievement* (Unpublished Doctoral thesis). Department of Education, Kurukshetra University, Kurukshetra, India.
- Rout, S.K. (2009). A study of the utilization of educational media at primary stage. *Indian Educational Review, 45*(1), 11.

- Rubio, C. M. (2010). Effective teachers- Professional and personal skills. *Ensayos*, 35-46.
- Ryans, D.G. (1960). *Characteristics of teachers: Their description, comparison, and appraisal* (pp.416). Washington, DC: American Council on Education.
- Sachdev, P. (2011). *Effectiveness of an intervention programme to develop adversity quotient® of potential leaders* (Doctoral dissertation, Rizvi Institute of Management Studies & Research Mumbai, Shreemati Nathibai Damodar Thackersey Women's University, Mumbai, India). Retrieved January 6, 2017, from http://www.peaklearning.com/documents/PEAK_GRI_pritiSachdev.pdf
- Sandler, B., Silverberg, L. A., & Hall, R. M. (1996). *The chilly classroom climate: A guide to improve the education of women*. Washington DC: National Association for Women in Education.
- Savran, A., & Cakiroglu, J. (2003). Difference between elementary and secondary pre- service science teachers' perceived efficacy beliefs and their classroom management beliefs. *The Turkish Online Journal of Educational Technology*, 2(4).
- Sawhney, S., & Kaur, M. (2011). Teacher effectiveness in relation to self-concept of elementary school teachers. *Indian Streams Research Journal*, 1(3), 13-14.
- Saxena, J., & Singh, S. (2008). A study of teaching competency of different level teachers. *Psycho. Lingua*, 38 (1) 76-78.
- Scheerens, J. (1992). *Effective schooling: Research, theory and practice*. London, United Kingdom: Cassell.
- Scheerens, J. (2004). *Review of school and instructional effectiveness research*. Retrieved September 14, 2017, from <http://unesdoc.unesco.org/images/0014/001466/146695e.pdf>
- Scheerens, J. (2008). *Review of research on school and instructional effectiveness*. Enschede, Netherlands: University of Twente Press.

- Schiefelbein, E., & Simmons, J. (1981). School effectiveness in developing countries: A summary of the research evidence. *Education Research Paper, 1*, 25.
- Schlichte, J., Yssel, N., & Merbler, J. (2005). Pathways to burnout: Case studies in teacher isolation and alienation. *Preventing School Failure: Alternative Education for Children and Youth, 50*(1), 35-40.
- Scholte, R. H., Engels, R. C., Overbeek, G., De Kemp, R. A., & Haselager, G. J. (2007).
- Stability in bullying and victimization and its association with social adjustment in childhood and adolescence. *Journal of abnormal child psychology, 35*(2), 217-228.
- Schumacker, R. E., & Lomax, R. G. (2016). *A beginner's guide to structural equation modelling* (4th ed.). New York, NY: Routledge.
- Seckler, D.A. (1978). Length of service community, social relationship and perception of community figure. *Dissertation Abstracts International-B, 38*, 6173-B.
- Seeman, M. (1959). On the meaning of alienation. *American Sociological Review, 24*, 783-791.
- Seeman, M. (1991). Alienation and anomie. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes*. San Diego, CA: Academic Press.
- Segars, A.H., & Grover, V. (1993). Re-examining perceived ease of use and usefulness: A confirmatory factor analysis, *MIS Quarterly, 17*(4), 517-525.
- Sellbom, M., Sansone, R. A., Songer, D. A., & Anderson, J. L. (2014). Convergence between DSM-5 Section II and Section III diagnostic criteria for borderline personality disorder. *Australian & New Zealand Journal of Psychiatry, 48*(4), 325-332.

- Sen, S. (2017). *Professional commitment rule conflict and self efficacy as related to change proneness among secondary school teacher* (Doctoral dissertation, The Department of Education, Himachal Pradesh University, Shimla, India). Retrieved May 16, 2020, from <http://hdl.handle.net/10603/202267>
- Sen, S., & Sood, V. (2016). Self-efficacy as related to gender, teaching experience and change proneness among secondary school teachers. *Scholarly Research Journal for Humanity Science & English Language*, 3(18), 4068-4078.
- Sen, S., & Sood, V. (2018). Professional commitment in relation to gender and change proneness among secondary school teachers. *International Multidisciplinary Journal*, 5(6), 2-8.
- Senger, E. S. (1998). Reflective reform in mathematics: The recursive nature of teacher change. *Educational Studies in Mathematics*, 37(3), 199-221.
- Shah, B. (1995). *Determinants of teacher effectiveness*. Ambala, India: The Indian Publications.
- Shah, N., & Shah, S.G. (2010). Relationships between employee readiness for organisational change, supervisor and peer relations and demography. *Journal of Enterprise Information Management*, 23(5), 640-652. doi: 10.1108/17410391011083074
- Shah, S. I. A., & Thoker, A. A. (2013). A comparative study of government and private secondary school teachers towards their teaching profession. *Journal of Education and Practice*, 4(1).
- Shantz, A., Alfes, K., Bailey, C., & Soane, E. (2015). Drivers and outcomes of work alienation: Reviving a concept. *J. Manag. Inq.*, 24, 382-393.
- Sharma, N. (2012). A study of effectiveness of secondary school teachers in relation to their attitude towards teaching and adjustment in teaching profession. *Journal of Department of Educational Studies, Delhi*, 1-2. Retrieved May 21, 2019, from http://jmi.ac.in/upload/Research/ab_2012_es_neesha.pdf

- Sharma, P., & Siddiqui, M. A. (2012). Study of teaching effectiveness in relation to academic background, teaching experience and gender among secondary school teachers. *Journal of Teacher Education and Research*, 7(2).
- Sharma, P., & Tyagi, N. (2010). A comparative study of job satisfaction in relation to teacher effectiveness of government and private school teachers at secondary level. *NECST Journal of Teacher Training*, 2(1). Retrieved May 16, 2019, from <http://www.scribd.com/doc/56177623/NECST-JTT>
- Sharma, R.A. (1971). *A study of the relationship of predictors of teacher effectiveness at elementary level and follow-up after one year of training* (Doctoral dissertation). Department of Education, Meerut University, Meerut, India.
- Sharma, S., Mukherjee, S., Kumar, A., & Dillon, W. (2005). A simulation study to investigate the use of cutoff values for assessing model fit in covariance structure models. *Journal of Business Research*, 58(7), 935-943.
- Shen, C. Y. (2014). A study investigating the influence of demographic variables on adversity quotient. *The Journal of Human Resource and Adult Learning*, 10(1).
- Shen, C. Y., & Chang, J. C. (2009). On the relations between adversary quotient, work pressure and work satisfactions. *Operating Management Reviews*, 5(1), 21-37.
- Shen, C. Y., Li, T. C., & Liu, L.W. (2011). The relative study between adversity quotient, job stress and job satisfaction upon university teachers-The case of the private university in Southern Taiwan. *Journal of NPO Management*, 10, 50-74.
- Sherman, T. M., Armistead, L. P., Fowler, F., Barksdale, M. A., & Reif, G. (1987). The quest for excellence in university teaching. *The Journal of Higher Education*, 58(1), 66-84.

- Shishavan, H. B., & Sadeghi, K. (2009). Characteristics of an effective english language teacher as perceived by Iranian teachers and learners of English. *CCSE Journal*, 2(4), 130-143.
- Shivaranjani, G. (2018). *Adversity quotient profiling® for women employees of commercial banks in Coimbatore district Tamil Nadu* (Doctoral dissertation, The Faculty of Management Studies, Anna University, Chennai, India). Retrieved May 16, 2020, from <http://hdl.handle.net/10603/233729>
- Shoho, A. R., & Katims, D. S. (1998). *Perceptions of alienation among special and general education teachers*. Retrieved March 17, 2019, from <https://eric.ed.gov/?id=ED419319>
- Shoho, A. R., & Martin, N. K. (1999). *A comparison of alienation among alternatively and traditionally certified teachers*. Paper presented at the Annual Meeting of the Educational Research Association, Montreal, Quebec, Canada. Retrieved March 10, 2018, from <https://files.eric.ed.gov/fulltext/ED431707.pdf>
- Shrivastava. A, & Mukhopadhyay. A, M. (2009). Alienation and emotional intelligence of adolescents with internalising symptoms. *Journal of the Indian Academy of Applied Psychology*, 35(1), 99-105.
- Shrivastava, P. (2013). *Change proneness as a predictor of teacher effectiveness with special reference to secondary school teachers* (Doctoral dissertation, The Department of Education, Pt. Ravishankar Shukla University, Raipur, India). Retrieved May 16, 2020, from <http://hdl.handle.net/10603/98421>
- Shrivastava, P. C. (2006). A Study of the relationship between Emotional Intelligence and Teacher Effectiveness at primary level. *Journal of Education Studies*, 1(2), 58.
- Shukla, I. (2008). Burnout and stress among secondary school teachers in relation to their teaching effectiveness. *European Journal of All India Association for Educational Research*, 20, 3-4.

- Siesel, A. H. (1997). *The relationship between principal succession and teachers' readiness to change* (Doctoral dissertation). Department of Educational administration, University of New Orleans, New Orleans, LA.
- Şimşek, H., Balay, R., & Şimşek, S. (2012). Alienation from work of elementary school teachers. *Journal of Educational Science Research*, 2(1), 53-72.
- Sindberg, L. (2011). Alone all together-the conundrum of music teacher isolation and connectedness. *Bulletin of the Council for Research in Music Education*, 189, 7-22.
- Singh, C.P. (1987). *A study of determinants of teaching effectiveness of secondary school teachers in physical education* (Unpublished Master's thesis). Department of Education, Punjabi University, Patiala, India.
- Singh, D. (1991). *Creativity and intelligence as correlates of teaching effectiveness of secondary school teachers* (Doctoral dissertation). Department of Education, Panjab University, Chandigarh, India.
- Singh, G. (2009). *Motivation, job involvement, occupational stress and coping strategies as correlates of teacher effectiveness at senior secondary stage in Jammu* (Doctoral dissertation). Department of Education, Panjab University, Chandigarh, India.
- Singh, J.D., & Pal, S. (2011). A study of job satisfaction and teaching effectiveness of primary and upper primary school teachers of Bikaner region. *Educational and Psychological Research*, 1(2).
- Singh, K. (1993). *A study of the factors affecting alienation in the non-teaching employees of Bundelkhand University* (Doctoral dissertation, The Institute of Education, Bundelkhand University, Jhansi, India). Retrieved May 16, 2020, from <http://hdl.handle.net/10603/10780>
- Singh, K., & Billingsley, B.S. (1998). Professional support and its effects on teacher commitment. *Journal of Educational Research*, 91(4), 229-239.

- Singh, K., & Parveen, S. (2018). Impact of adversity quotient on learning behaviour among secondary school students. *Indian Journal of Public Health Research & Development*, 9(12), 1773-1779.
- Singh, P. R. (2012). Study of effectiveness of secondary school teachers. *International Indexed & Referred Research Journal*, 4, 42. Retrieved October 11, 2019, from www.academia.edu
- Singh, R. S. (1987). A study of teachers effectiveness and it's correlates at higher secondary stage in Eastern U.P. *Fourth Survey of Research in Education*, NCERT, New Delhi, India.
- Singh, S., & Sahu, S. (2010). Effect of socio-economic-status, gender and residence on alienation of adolescent students. *A.P.R.C. Indian psychological Review*, 75, 279-288.
- Singh, S., & Sharma, T. (2017). Effect of adversity quotient on the occupational stress of IT managers in India. *Procedia Computer Science*, 122, 86-93.
- Singh, Y. G. (2012). Teacher's effectiveness in relation to their some variables. *International Referred Research Journal*, 3(37).
- Şirin, E. F. (2009). The search of the physical education teachers work alienation level according to some variables. *Celal Bayar University Journal of Physical Education and Sport Sciences*, 4(4), 164-177.
- Sodhi, B. (2010). *Teacher effectiveness of secondary school teachers of Punjab in relation to school organisational climate* (Doctoral dissertation). Department of Education and Community Service, Panjabi University, Patiala, India.
- Song, J. H., & Woo, H. Y. (2015). AQ (adversity quotient), job satisfaction and turnover intention according to work units of clinical nursing staffs in Korea. *Indian Journal of Science and Technology*, 8(8), 74-78.

- Sood, V., & Anand, A. (2010). Professional commitment among B. Ed. Teacher educators of Himachal Pradesh. *Journal of All India Association for Educational Research*, 22(1), 7-1.
- Souders, D. J., Boot, W. R., Charness, N., & Moxley, J. H. (2016). Older adult video game preferences in practice: Investigating the effects of competing or cooperating. *Games and culture*, 11(1-2), 170-200.
- Soza, J. R. (2015). *Teacher alienation: Reconceptualizing the educational work environment* (Doctoral dissertation, The Faculty of the School of Education, Loyola Marymount University, Los Angeles, CA). Retrieved May 18, 2017, from <https://digitalcommons.lmu.edu/etd/184/>
- Sreenivasulu, B., & Reddy, B. S. (2012). Teacher effectiveness in relation to mental health, stress and emotional intelligence. *Edutracks*, 11(11).
- Sridhar, Y. N., & Javan, S. (2011). Teacher efficacy and its relationship to classroom management style among secondary school teachers of Kigali city, Rwanda. *Journal of Education and Practice*, 2(2), 1-7.
- Sridhar, Y. N., & Razavi, H. R. (2008). Teacher efficacy in different management types of secondary schools. *Journal of All India Association for Educational Research*, 20 (1& 2), 76-78.
- Srivastava, R.K. (2005). Teacher Effectiveness of upper primary school Teachers. *Psycho-lingua*, 35.
- Starbuck, G. H. (2003). *College teaching styles by gender*. Paper presented at the Annual Meeting of the Western Social Science Association, Las Vegas, NV.
- Statham, A., Richardson, L., & Cook, J. A. (1991). *Gender and university teaching: A negotiated difference*. Albany, NY: State University of New York Press.
- Stoltz, P.G. (1997). *Adversity quotient: Turning obstacles into opportunities*. New York, NY: John Wiley and Sons, Inc.

- Stoltz, P. G. (2000). *Adversity quotient at work: Make everyday challenge the key to your success-putting principles of AQ into action*. New York, NY: Harper Collins Publishing, Inc.
- Stoltz, P. G. (2000). Adversity quotient: Turning obstacles into opportunities. *The Business Source*, 1-5. Retrieved July 10, 2017, from <http://bml.s3.amazonaws.com/pdf/adversityquotient.pdf>
- Stoltz, P. G., & Weihenmayer, E. (2008). *The adversity advantage: Turning everyday struggles into everyday greatness*. New York, NY: Simon & Schuster.
- Streiner, D. L. (1994). Figuring out factors: The use and misuse of factor analysis. *Canadian Journal of Psychiatry*, 39, 135-140.
- Subbarayan, P. (1985). *A study of relationship between teacher effectiveness, research and publication and self-concept* (Unpublished doctoral dissertation). Department of Education, Andhra University, Visakhapatnam, India.
- Sullivan, C. (2001). *Rewarding excellence: Teacher evaluation and compensation*. Alexandria, VA: National School Boards Association.
- Summons, P. (2011). *Change-proneness in relation origin pawn ideology among the degree college lecturers* (Master's thesis). Cogswell University of Silicon Valley, San Jose, CA.
- Sunny, T. R. (2015). *A study of the relationship between individual and school related factors and teacher effectiveness at secondary level* (doctoral dissertation, The Department of Education, University of Mysore, Mysore, India). Retrieved May 16, 2020, from <http://hdl.handle.net/10603/49973>
- Suryanarayana, N.V.S., & Himabindu, G. (2010). *Change proneness in relation origin pawn ideology among the degree college lecturers*. Article published on <http://www.articlesbase.com>, retrieved June 20, 2017, from <http://www.articlesbase.com/college-and-university-articles/changeproneness-in-relation-origin-pawn-ideology-among-the-degree-collegelecturers-3108666.html>

- Suryanarayana, N.V.S., & Luciana, M.Z. (2010). Teaching competency and teacher job satisfaction among secondary school teachers. Retrieved June 20, 2017, from <https://university.org/teaching-competency-and-teacher-job-satisfaction-among-secondary-school-teachers/>
- Swaminathan, A., Sekar, P., & Murty, K. V. S. N. (2014). Teaching abilities of primary school teachers: An empirical study. *Global Journal for research Analysis, 3*(7), 92-95.
- Swanson, H. L., & Fung, W. (2016). Working memory components and problem-solving accuracy: Are there multiple pathways?. *Journal of Educational Psychology, 108*(8), 1153.
- Swingewood, A. (1975). *Marx and modern social theory*. San Francisco, CA: John Wiley and Sons, Inc.
- Tabachnick, B. G., & Fidell, L. S. (1996). *Using multivariate statistics* (3rd ed.). New York, NY: Harper Collins College.
- Tait, M. (2008). Resilience as a contributor to novice teacher success, commitment, and retention. *Teacher Education Quarterly, 35*(4), 57-75.
- Tanega, C.L.C., Hersheena, R.L., & Yaguel, A.B. (2009). *The relationship of teachers' adversity quotient and teaching styles to their teaching performance* (Bachelor's Thesis, Polytechnic University of the Philippines, Manila, Philippines). Retrieved March 20, 2020, from <https://www.scribd.com/presentation/404232607/The-Relationship-of-Teacher-s-Adversity-Quotient-and-Teaching-Styles-to-theirTeaching-Performance>
- Tatar, M., & Emmanuel, G. (2001). Teachers' perceptions of their students' gender roles. *The Journal of Educational Research, 94*(4), 215-224.
- Taylor, L. K., Merrilees, C. E., Baird, R., Goeke-Morey, M. C., Shirlow, P., & Cummings, E. M. (2018). Impact of political conflict on trajectories of adolescent prosocial behavior: Implications for civic engagement *Developmental psychology, 54*(9), 1785.

- Taylor, P., Fraser B., & Fisher D. (1997). Monitoring constructivist classroom learning environments. *International Journal of Educational Research*, 27 (4), 293-301.
- Templin, T. J. (1988). Teacher isolation: A concern for the collegial development of physical educators. *Journal of Teaching Physical Education*, 7, 197-205.
- Thien, L. M. (2019). Distributive leadership functions, readiness for change, and teachers' affective commitment to change: A partial least squares analysis. *Sage Open*, 9(2), 2158244019846209.
- Thomas-Sharksnas, B. L. (2002). *The relationship between resilience and job satisfaction in mental health care workers* (Doctoral dissertation, The Department of Education, Marywood University, Pennsylvania, PA). Retrieved July 15, 2017 from http://peaklearning.com/documents/PEAK_GRI_sharksnas.pdf
- Thomson, W. C., & Wendt, J. C. (1995). Contribution of hardiness and school climate to alienation experienced by student teachers. *The Journal of Educational Research*, 88(5), 269-274.
- Tian, Y., & Fan, X. (2014). Adversity quotients, environmental variables and career adaptability in student nurses. *Journal of Vocational Behavior*, 85, 251-257.
- Tolan, B. (1981). *Depression of the Modern Society: Anomy and alienation*. Ankara, Turkey: Academy of Economics and commercial Science's Publications.
- Toll, S. W., Van Viersen, S., Kroesbergen, E. H., & Van Luit, J. E. (2015). The development of (non-) symbolic comparison skills throughout kindergarten and their relations with basic mathematical skills. *Learning and Individual Differences*, 38, 10-17.
- Toor, K.K. (2014). A study of teacher effectiveness, general intelligence and creativity of secondary school teachers. *MIER Journal of Educational Studies, Trends and Practices*, 4(1).

- Tran, U. S., Cebolla, A., Glück, T. M., Soler, J., Garcia-Campayo, J., & Von Moy, T. (2014). The serenity of the meditating mind: A cross-cultural psychometric study on a two-factor higher order structure of mindfulness, its effects, and mechanisms related to mental health among experienced meditators. *PloS one*, 9(10), e110192.
- Tripathi, A. (2018). *A study of influence of blood group types adversity quotient and defense mechanism on academic achievement of secondary school students* (Doctoral dissertation, The Faculty of Education, Banaras Hindu University, Varanasi, India). Retrieved May 26, 2020, from <http://hdl.handle.net/10603/285699>
- Tripathi, S. (2011). *Use of adversity quotient AQ in creating strong business leaders of tomorrow* (Doctoral dissertation, Janki Devi Bajaj Institute of Management Studies, SNDT Womens University, Mumbai, India). Retrieved January 15, 2017, from <http://hdl.handle.net/10603/4619>
- Tsang, K. K. (2015). Sociological research on teachers' emotions: Four approaches and the shared themes. *Journal of Sociological Research*, 6(2), 150-168.
- Tsang, K. K. (2016). *Teacher alienation in Hong Kong*. Retrieved August 20, 2019, from <https://doi.org/10.1080/01596306.2016.1261084>
- Tsang, K.K. (2018). Teacher alienation in Hong Kong. *Discourse: Studies in the Cultural Politics of Education*, 39(3), 335-346.
- Tseng, W. L., Kawabata, Y., Gau, S. S. F., & Crick, N. R. (2014). Symptoms of attention-deficit/hyperactivity disorder and peer functioning: A transactional model of development. *Journal of abnormal child psychology*, 42(8), 1353-1365.
- Tucker, P. D., Stronge, J. H., & Gareis, C. R. (2002). *Handbook on teacher portfolios for evaluation and professional development*. Larchmont, NY: Eye on Education.

- Tyagi, S.K. (2004). Emotional Intelligence of Secondary teachers in relation to gender and age. *Journal of Education Research and Extension*, 41(3), 39-45.
- Udayagiri, N.R. (1999). *A study of change-proneness as influencing factors to determine enhances school effectiveness* (Doctoral dissertation). RIE, NCERT Mysore, India.
- Van den Broeck, J., Cunningham, S. A., Eeckels, R., & Herbst, K. (2005). Data cleaning: Detecting, diagnosing, and editing data abnormalities. *PLoS Med*, 2(10), 267.
- Vanoostendorp, K. (1991). Effect of student gender bias toward the instructor on classroom management at the secondary level. Retrieved May 25, 2019, from <https://eric.ed.gov/?id=ED346191>
- Varughese, P. (2013). *Relationship between emotional intelligence and effectiveness of primary school teachers in Kerala State* (Doctoral dissertation). Department of Education, Panjabi University, Patiala, India.
- Vellaisamy, M. (2007). Effectiveness of multimedia approach in teaching science at upper primary level. *Indian Educational Review*, 43(1), 124-127.
- Verma, S. (2014) (a). *Work motivation and professional competence as determinants of change proneness in rural urban school teachers* (Doctoral dissertation). Department of Education, Pt. Ravishankara Shukla University, Raipur, India.
- Verma, S. (2014) (b). Work motivation as determinant of change proneness in male and female school teachers. *Journal of Business & Economic Policy*, 1(1), 116-118.
- Verma, S. (2017). Feeling of work alienation among primary school teachers. *Journal of Psychosocial Research*, 12(2), 469-476.
- Veneziano, L., & Hooper, J. (1997). A method for quantifying content validity of questionnaires. *American Journal of Health Behaviour*, 21(1), 67-70.

- Venkateshwarlu, D. (2006), changing role of the teachers. *Journal of Indian education*, 43(32), 34-39.
- Vijayalakshmi, G. (2002). Factors affecting teacher effectiveness. *Edutracks*, 1(5), 35-38.
- Vijayalakshmi, G., & Mythill, B. (2004). Impact of some personal and professional variables on the teacher effectiveness and work orientation. *Recent Researches in Education and Psychology*, 9(1), 15-21.
- Villaver, E. L. (2005). *The adversity quotient levels of female grade school teachers of a public and a private school in Rizal province* (Master's thesis). St. Joseph's College, Quezon City, Philippines.
- Vinaitheerthan, V. (1981). *A study of innovation, dissonance and its correlates in Secondary Schools* (Unpublished doctoral dissertation). Department of Education, M.S. University, Baroda, India.
- Vishalakshi, K. K. (2013). *Teacher effectiveness emotional intelligence and self esteem of secondary school teachers a correlational study* (Doctoral dissertation, The Department of Education, University of Mysore, Mysore, India). Retrieved May 16, 2020, from <http://hdl.handle.net/10603/76627>
- Vogel, S. (1996). *Against nature*. Albany, NY: SUNY Press.
- Wang, D. (2013). *The demoralization of teachers: Crisis in a rural school in China*. Lanham, MD: Lexington Books.
- Wang, P., & Dai, Q. (2011). A survey of social support and coping style in middle school female teachers in China. *Creative Education*, 2(3), 220-225. doi:10.4236/ce.2011.23030
- Wangoo, M.L (1984). Teacher personality correlation and scholastic competence as related to teacher effectiveness. In M.B. Buch (Ed.), *Fourth survey of research in education*, NCERT (pp. 2). New Delhi, India.

- Weber, M. (1968). *Economy and society: An outline of interpretive sociology*. Berkeley, CA: University of California Press.
- Weber, P. S., & Weber, J.E. (2001). Changes in employee perceptions during organizational change. *Leadership & Organization Development Journal*, 22(6), 291-300.
- Whitworth, J. E., Price, B. A., & Randall, C. H. (2002). Factors that affect college of business student opinion of teaching and learning. *Journal of Education for Business*, 282-89.
- Wikipedia. (2011). *Teacher Motivation*. Retrieved March 12, 2020, from https://wikieducator.org/Teacher_Motivation
- Williams-Johnson, M., Cross, D., Hong, J., Aultman, L., Osbon, J., & Shutz, P. (2008). There are no emotion in math: How teachers approach emotions in the classroom. *Teachers College Record*, 110(8), 1574-1610.
- Williams, M. W. (2003). *The relationship between principal response to adversity and student Achievement* (Doctoral dissertation). Cardinal Stritch University, Milwaukee, WI.
- Wilson, S., Floden, R., & Ferrini-Mundy, J. (2001). *Teacher preparation research: Current knowledge, gaps, and recommendations*. Seattle, WA: University of Washington Center for Teaching Policy Press.
- Wong, A., & Carlbäck, J. (2018). *A Study on Factors Influencing Acceptance of Using Mobile Electronic Identification Applications in Sweden*. Retrieved February 5, 2021, from <http://urn.kb.se/resolve?urn=urn:nbn:se:hj:diva-39902>
- Wong, J. Y., De Vivo, I., Lin, X., Grashow, R., Cavallari, J., & Christiani, D. C. (2014). The association between global DNA methylation and telomere length in a longitudinal study of boilermakers. *Genetic epidemiology*, 38(3), 254-264.

- Wood, T. D. (2012). Teacher perceptions of gender-based differences among elementary school teachers. *International Electronic Journal of Elementary Education*, 4(2), 317-345.
- Wymer, W., & Baptista Alves, H. M. (2012). A review of scale development practices in non-profit management and marketing. *Economics & Sociology*, 5(2), 143-151.
- Yadav, B. (2012). *Relationship between happiness and teaching effectiveness among school teachers*. Retrieved May 28, 2019, from <http://www.shreeprakashan.com/Documents/2012126124028398.9.bajrangi%20yadev.pdf>
- Yap, K. O. (1997). *Creating connections: The internet and teacher isolation*. Retrieved September 13, 2018, from <https://files.eric.ed.gov/fulltext/ED412212.pdf>
- Yorulmaz, Y. I., Altinkurt, Y., & Yilmaz, K. (2015). The relationship between teachers' occupational professionalism and organizational alienation. *Online Submission*, 4, 31-44.
- Yu, H., Leithwood, K., & Jantzi, D. (2002). The effects of transformational leadership on teachers' commitment to change in Hong Kong. *Journal of educational administration*. 40(4), 368-389.
- Yurdagül, H. (2005). *Using content validity index for content validity in scale development studies*. Paper presented at the National Educational Sciences Congress, Pamukkale University, Denizli, Turkey.
- Zaremba, S. B., & Fluck, S. E. (1995). Gender and patterns of communication. Proceedings of the 9th Annual Conference on Undergraduate Teaching of Psychology, Ellenville, NY. Retrieved May 21, 2019, from <https://eric.ed.gov/?id=ED389378>
- Zeydel, K. (2015). *The makings of an effective teacher*. Retrieved March 10, 2018, from <https://www.advanc-ed.org/source/makings-effective-teacher>

- Zhang, Y., Lin, C. H., Zhang, D., & Choi, Y. (2017). Motivation, strategy, and English as a foreign language vocabulary learning: A structural equation modelling study. *British Journal of Educational Psychology*, 87(1), 57-74.
- Zielinski, A.E., & Hoy, W.K. (1983). Isolation and alienation in elementary schools. *Educational Administration Quarterly*, 19, (2), 27-45.
- Ziller, R. (1969). The Alienation Syndrome: A triadic pattern of self-other orientation. *Sociometry*, 32(3), 287-300.
- Zivkovic, J., Salatian, A., Ademoh, F., & Oborkhale, L. (2012). Perceptions of male and female lecturers at an American style university in Nigeria. *International Journal of Academic Research in Business and Social Sciences*, 2(5).

APPENDIX A



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 Dr. (Mrs.) Umme Kulsum (Bangalore)

Consumable Booklet
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Date of Birth _____ Sex : Male Female

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INSTRUCTIONS

If we perceive the best and the worst effective teachers and the other categories of them in terms of the rungs of the picture of the ladder given here, we can say that the best effective teachers could be placed on the 10th (highest) rung of the ladder and the worst effective once on the 0th rung of the ladder. If one travels from the top to the bottom of the picture of the ladder, one would be having teachers with lower and lower levels of effectiveness.

You have been a teacher at the Secondary School level for quite some time now. Hence, by now you might have attained some level (status) in respect of your effectiveness as a teacher. Also you might have been aspiring to attain some better level (status) in the next three years in terms of your being an effective teacher.

Please read the statements given on the next pages and indicate the step number on which you think you are now in the picture of the ladder in respect of your effectiveness as a teacher and the step number you aspire to reach in the picture of the ladder in respect of your effectiveness in the next three years, keeping in view the maximum possible effectiveness (BEST) of teachers and the least possible effectiveness (WORST) of teachers, as a frame of reference for your rating.

This is not an examination for you. There are no right or wrong answers in your responses. You should feel free in marking your responses. You may please start now.

10
9
8
7
6
5
4
3
2
1
0

Sr. No.	STATEMENTS	Step number you are on Now	Step number aspiring to attain in the Next Three Years	SCORE
1.	I have full control over the subject I am teaching.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	I plan my lessons well in advance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	I do motivate my students for learning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	I possess supportive behaviour.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	I cooperate in the work of my school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	I adjust my teaching time judiciously.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	I make use of audio-visual aids to make my teaching more effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	I do exchange my experiences of subject-matter with my colleagues to become more knowledgeable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I am fairly creative.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	I am friendly with my colleagues.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	I go to class on time and leave it on time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	I resort to remedial teaching whenever necessary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sr. No.	STATEMENTS	Step number you are on Now	Step number aspiring to attain in the Next Three Years
13.	I have good expression.	<input type="checkbox"/>	<input type="checkbox"/>
14.	My knowledge of subject-matter is up-to-date.	<input type="checkbox"/>	<input type="checkbox"/>
15.	I invite my students for discussion outside class hours.	<input type="checkbox"/>	<input type="checkbox"/>
16.	I value interaction of my students during teaching-learning sessions.	<input type="checkbox"/>	<input type="checkbox"/>
17.	I keep on acquiring new knowledge.	<input type="checkbox"/>	<input type="checkbox"/>
18.	I am emotionally balanced.	<input type="checkbox"/>	<input type="checkbox"/>
19.	I do not discriminate students for personal reasons.	<input type="checkbox"/>	<input type="checkbox"/>
20.	I am objective in evaluating my students.	<input type="checkbox"/>	<input type="checkbox"/>
21.	I am reasonably active.	<input type="checkbox"/>	<input type="checkbox"/>
22.	I take a great deal of interest in parent-teacher association meetings.	<input type="checkbox"/>	<input type="checkbox"/>
23.	I make my teaching interesting by giving examples and situations that are familiar to students.	<input type="checkbox"/>	<input type="checkbox"/>
24.	I try to stimulate the intellectual curiosity of my students during my classes	<input type="checkbox"/>	<input type="checkbox"/>

Sr. No.	STATEMENTS	Step number you are on Now	Step number aspiring to attain in the Next Three Years	SCORE
25.	I go to school neatly and smartly dressed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
26.	I do contribute in the meetings of professionals and scholarly societies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
27.	I am systematic in my preparation of lessons.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
28.	I conduct tests periodically to evaluate my teaching.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
29.	I have a substantial knowledge of human development and learning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
30.	I am punctual in attending my school work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
31.	I do possess pleasing manners.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
32.	I do help my students facing personal and educational problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
33.	I organise the subject matter I teach to be in agreement with the course's objective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
34.	I have a fairly good memory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
35.	My gestures in the classroom are pleasant and approvable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
36.	I have a sense of duty and responsibility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>

Sr. No.	STATEMENTS	Step number you are on Now	Step number aspiring to attain in the Next Three Years	SCORE
37.	The tests I intend administering to my students will be reviewed and improved upon by me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38.	My teaching is characterized by clarity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39.	I discuss the content to the subject matter with ease and confidence.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40.	I have pleasant and distinct voice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41.	I value my academic achievements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42.	I am sufficiently adapt in maintaining cordial human relations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43.	I am reasonable obedient to my headmaster.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44.	I plan my lessons keeping in view the individual differences among students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45.	I guide my students in completing their assignments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46.	I have a great deal of interest in the subject I am teaching.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47.	I provide a laudable examples of my personal and social living to my students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48.	I show understanding and sympathy in working with my students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sr. No.	STATEMENTS	Step number you are on Now	Step number aspiring to attain in the Next Three Years	SCORE
49.	In the end, I am in the habit of summarizing the lesson, I teach.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
50.	I encourage students to be punctual in their assignments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
51.	I am concerned with the maintenance of discipline in the classroom within the framework of democratic atmosphere.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
52.	I take criticisms from others as a feedback for my own self improvement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
53.	I support the genuine causes of teaching community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
54.	Whenever necessary I do consult my colleagues in the planning of my lessons.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
55.	I help students in their reference work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
56.	While teaching, I ask more thought provoking questions than fact finding questions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
57.	I have love for my students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
58.	I plan my lessons based on the techniques tested and found suitable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
59.	I do discuss with students their performance in tests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
60.	I consider my first duty to be devoted to get a good name to my school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>

APPENDIX B

ADVERSITY QUOTIENT SCALE

Please fill the following information: Date

Name.....

School.....

Type of School: Private Government

Gender: Female Male

Work experience: Less than five years:

Five to ten years:

More than ten years:

INSTRUCTIONS

Dear teacher, the statements are given to assess adversity quotient of a secondary school teacher. For each statement, there are five response options like **Strongly Agree (SA)**, **Agree (A)**, **Uncertain (UN)**, **Disagree (D)** and **Strongly Disagree (SD)**. Read each statement carefully and give your response by marking a tick in one of the five boxes given on the right hand side of each statement. Mark only that option which you find is most appropriate and true in your case. **Please do not leave any statement unattempted.** There is no time limit.

SNo.	STATEMENTS	SA	A	UN	D	SD
1.	It is my responsibility to change the indifferent attitude of students towards studies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	I do not avoid working together with people whom I dislike at school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	It is my responsibility to give suggestions for improvement of working environment even if they are not welcomed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	I feel mental and physical stress even after school working hours.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	High expectations of school authorities and parents has increased my role complexity as a teacher.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	I take up the responsibility of giving extra remedial classes to under-performing students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	Being overlooked for a promotion does not eternally lower down my teaching morale.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	Work overload is not creating an imbalance between my professional and personal life commitments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	It is my responsibility to constantly motivate academically weak students for active participation in class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	School administrative, clerical etc. work disturbs my teaching work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	I find it difficult to further update my knowledge due to teaching overload.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SNo.	STATEMENTS	SA	A	UN	D	SD
12.	It is difficult to fulfil the responsibility of completing syllabus on time due to non-teaching tasks at school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	I am able to maintain a healthy relationship with my non-cordial colleagues at school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	It is my accountability to put sincere efforts to improve poor examination results of my students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	Under-appreciation by school authorities makes me feel professionally incompetent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	High pupil-teacher ratio in classroom makes it difficult to fulfil the responsibility to pay individual attention to each student.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	Favouritism on the part of the school authorities, makes me mentally disturbed eternally.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	I do not bring my school work at home to balance my professional and personal life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.	Delay in salaries and financial benefits gives me eternal work dissatisfaction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20.	Duties like invigilation, election etc. on holidays creates an imbalance between my personal and professional life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX C

ALIENATION SCALE

Please fill the following information: Date

Name.....

School.....

Type of School: Private Government

Gender: Female Male

Work experience: Less than five years:

Five to ten years:

More than ten years:


INSTRUCTIONS

Dear teacher, the statements are given to assess alienation of a secondary school teacher. For each statement, there are five response options like **Strongly Agree (SA)**, **Agree (A)**, **Uncertain (UN)**, **Disagree (D)** and **Strongly Disagree (SD)**. Read each statement carefully and give your response by marking a tick in one of the five boxes given on the right hand side of each statement. Mark only that option which you find is most appropriate and true in your case. **Please do not leave any statement unattempted.** There is no time limit.

SNo.	STATEMENTS	SA	A	UN	D	SD
1.	At school, I am not dissatisfied with my social life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Everyone meets and talks to me with open heart at school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	The people whom we work with, consider me stranger and outsider.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	It seems what we are doing today at the school is meaningless for us.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	This is wrong to say that we are neglected at our workplace and society.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	I am fully satisfied with my present condition at school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	In today's society, majority of teachers can get happiness and peace.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	What the people may say, the common teacher is in worse condition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Others are others, we are meaningless even for our own men.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	In today's setup, I can do whatever I like to do at school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	In home, society, school or anywhere else, we are not getting affection but neglect.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SNo.	STATEMENTS	SA	A	UN	D	SD
12.	The school organization has turned its head against us so much that it is difficult to say what would happen to us tomorrow.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	It is difficult to understand where the school organization we work in, is leading to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	Human nature of teachers is basically cooperative.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	It appears that whatever we are doing at school is just mechanical and is for pleasing others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	Most of the people at school can be trusted upon.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	All give me affection and trust wherever I am in at school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	'We are an important part of the present school organization.' Now I feel this.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX D

 <small>T. M. Regd. No. 564838 Copyright Regd. No. © A-73256/2005 Dt. 13.5.05</small>	Consumable Booklet of CPI-MM (English Version)
Dr. M. Mukhopadhyaya (Bhopal)	

Please fill in the following information : **Date**

Name _____ **Date of Birth** _____

Father's Name _____ **Sex :** Male Female

Educational Qualification _____

Designation _____ **Teaching Subjects** _____

Teaching Experience (in year) _____

Name of Institution _____

Area : Urban Rural

Type of Institution : Govt. Private Aided Missionary

INSTRUCTIONS

Read each statement carefully and decide your answer/view/action on the five points alternatives, viz., **Always, Frequently, Sometimes, Seldom** and **Never** and put a mark in the appropriate cell which best represents your position.

SCORING TABLE

Page	Raw Score			z- Score	Grade	Level of Change Proneness
	2	3	4			
Score						
Total Score						

Scorer

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 4/230, KACHERI GHAT, AGRA-282 004 (INDIA)

Sr. No.	Statement	RESPONSE					Score
		Always	Fre- quently	Some- times	Seldom	Never	
1.	Do you try with different methods of teaching for a particular subject?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
2.	Do you refer text-books other than prescribed in your school in your subject?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
3.	Are you willing to try something new which may increase your work load?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
4.	Do you mind trying something new which may fail?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
5.	Do you think critically before trying or accepting a new practice?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
6.	Do you prepare a plan for bringing about a successful implementation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
7.	Do you think that you will try with a new practice even if the principal is not willing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
8.	Will you try to implement an innovation when other colleagues are cold or critical about you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
9.	Do you exercise persistence and diplomacy in sticking with a new practice?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
10.	Do you like your innovation to be carefully scrutinised by your colleagues when there are chances of conflicting points of view?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
11.	Do you make any effort to know about innovations in your field?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
12.	Do you try to know about the process of educational change?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
13.	Do you talk about new ideas or practices in leisure time?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
14.	Does your gossip or chit-chats with friends accommodate discussion about new practices?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
15.	Do you think that educational research has got any relevance to your work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
16.	Do you think that the innovations suggested by the training colleges are practicable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
17.	Do you talk initiative in contacting other schools that are trying new ideas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>

Total Score Page 2

Sr. No.	Statement	RESPONSE					Score
		Always	Frequently	Sometimes	Seldom	Never	
18.	Do you bring new ideas and developments to the attention of other teachers as well as principal ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
19.	Do you question yourself about teaching methods ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
20.	Do you read educational journals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
21.	Will you try something which is suggested by the students ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
22.	When you are a teacher of a higher class, do you mind being given classes in the lower class ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
23.	Do you think that any innovative can be tried out ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
24.	Do you think that you are always open-minded to new ideas ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
25.	Are you optimistic about the innovation's capacity to change ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
26.	Do you think that we can better try to adopt our ancient education rather than experimenting, when other things remain unchanged ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
27.	Would you like to change this school after a few years merely to have new experiences, when other things remains unchanged ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
28.	Do you think you get adequate freedom to try out new ideas ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
29.	Do your colleagues teas you for trying out an innovation ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
30.	Do you stop try out an innovation in order to maintain the relationship with other teachers ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
31.	Does your headmaster allow you to conduct any experiment of your own may be even without his permission ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
32.	Do you discuss about an innovation with your colleagues ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
33.	Do you try something new suggested in a journal ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Total Score Page 3							<input type="text"/>