

**IMPACT OF CLASSROOM MANAGEMENT STYLES,
CREDIBILITY OF SCHOOL TEACHERS AND INSTITUTIONAL
SUPPORT ON THE ACHIEVEMENT MOTIVATION AND
LEADERSHIP DEVELOPMENT AMONG SECONDARY
SCHOOL STUDENTS**

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Thesis**

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**By
AMANPREET KAUR
41300147**

**Supervised By
DR. VIJAY KUMAR**

**LOVELY FACULTY OF BUSINESS AND ARTS
LOVELY PROFESSIONAL UNIVERSITY
PUNJAB**

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DECLARATION

I declare that the thesis entitled “**Impact of Classroom Management Styles, Credibility of School Teachers and Institutional Support on the Achievement Motivation and Leadership Development among Secondary School Students**” has been prepared by me under the guidance of Dr. Vijay Kumar, Professor, School of Education, Lovely Professional University, Phagwara, Punjab. No part of this thesis has formed the basis for the award of any degree or fellowship previously.

Amanpreet Kaur

Reg. No.: 41300147

School of Education

Lovely Professional University

Phagwara, Punjab, India

Dated: _____



L OVELY
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U NIVERSITY

CERTIFICATE

I certify that **Amanpreet Kaur** has prepared her thesis entitled “**Impact of Classroom Management Styles, Credibility of School Teachers and Institutional Support on the Achievement Motivation and Leadership Development among Secondary School Students**” for the award of Ph.D. degree of the Lovely Professional University under my guidance. She has carried out the work at the School of Education, Lovely Professional University, Phagwara, Punjab.

Dr. Vijay Kumar

(Supervisor)

Professor

School of Education

Lovely Professional University

Phagwara, Punjab, India

Dated: _____

ABSTRACT

Teachers exhibit different classroom management styles while managing the learning environment, classroom discipline, teacher-student relationship, various rules, activities, examination, behaviour of their students and the whole curriculum. When teachers behave in an expert manner, care about their students, treat them well and show honesty towards them, then students start liking and respecting them more, and ultimately perceive them as credible teachers. The institutions or schools provide different types of support and facilities to their students, so that students can achieve their goals successfully. The previous researches have highlighted that classroom management styles and credibility of teachers affect the learning of students. Institutional support is equally very important factor to affect the learning of students because schools assist students by identifying, assessing and providing solutions to their needs and diversity. In the present scenario of teacher education, it calls for an urgent need to train student teachers and in-service teachers to learn and adopt effective classroom management styles and to maintain high credibility in front of students, and it is necessary to guide schools to provide adequate institutional support because these all factors determine the achievement motivation and leadership development among students. Students can become the high achievers and good leaders for the society if teachers and the schools are playing their roles well.

The present study is aimed at investigating the impact of classroom management styles, credibility of school teachers and institutional support on the achievement motivation and leadership development among secondary school students. The objectives of the study were; a) To compare the classroom management styles of teachers w.r.t (i) type of school; (ii) school board; (iii) gender of the teacher; (iv) subject of teaching; (v) school size of secondary school students, b) To compare the credibility of teachers w.r.t (i) type of school; (ii) gender; (iii) school board; (iv) gender of the teacher; (v) school size; (vi) subject of teaching; (vii) region of secondary school students, c) To compare the institutional support provided to students w.r.t (i) gender; (ii) type of school; (iii) school board; (iv) school size; (v) region of secondary school students, d) To compare the achievement

motivation and leadership development w.r.t (i) type of school; (ii) school board; (iii) type of family; (iv) gender; (v) school size; (vi) locale; (vii) region; (viii) family size of secondary school students, e) To study the inter-relationship between (i) classroom management styles and institutional support provided to the students; (ii) credibility of teachers and institutional support provided to the students; (iii) classroom management styles and credibility of teachers, f) To study the inter-relationship between achievement motivation of students, and (i) classroom management styles; (ii) credibility of teachers; (iii) institutional support, g) To study the inter-relationship between leadership development of students, and (i) classroom management styles; (ii) credibility of teachers; (iii) institutional support, h) To study the inter-relationship between achievement motivation and leadership development of students, i) To predict the role of classroom management styles, credibility of teachers and institutional support on the achievement motivation of students, j) To predict the role of classroom management styles, credibility of teachers and institutional support on the leadership development of students.

A descriptive study was designed using convenience sampling. The respondents were drawn from the government and private schools affiliated to PSEB and CBSE board located in three regions of Punjab i.e. Majha, Malwa and Doaba. The data was collected from 10th class and comprised of 1071 students. In order to measure students' perceptions of their teachers' classroom management styles, 'Classroom Management Styles Scale' was constructed and standardized on Indian population with the help of Exploratory Factor Analysis (EFA) and the internal consistency of the tool was analyzed by calculating Cronbach's alpha. To assess students' perceptions of institutional support provided to them in schools, 'Institutional Support Scale' was constructed and standardized on Indian population with the help of EFA and Confirmatory Factor Analysis (CFA), and the internal consistency of the tool was analyzed by calculating Cronbach's alpha, and composite reliability for each dimension of the scale was calculated. In order to measure credibility of teachers, 'Teacher Credibility Scale' by McCroskey and Teven (1999) and for measuring leadership development of students, 'Socially Responsible Leadership Scale Revised Version Two (SRLS-R2)' by Dugan (2006) was used. These two tools were validated on Indian population by using CFA and

internal consistency of the scales was analyzed by calculating Cronbach's alpha and composite reliability. For measuring the achievement motivation of students, 'Achievement Motivation Scale (n-Ach)' by Deo-Mohan (2011) was employed and to validate the construct validity of the scale, factor analysis was used. Therefore, investigator has validated this tool on Indian population by using EFA and CFA, and internal consistency of the scale was analyzed by Cronbach's alpha and composite reliability. Chi Square Association design, significant difference design, Correlational Research design and Regression analysis designs was employed to conduct the analysis. The data were analysed by using IBM SPSS version 22 and IBM SPSS AMOS version 20.

The major findings of the study are; a) institutional support predicts the achievement motivation and leadership development among school students, b) democratic and laissez-faire classroom management styles and credibility of teachers have significant impact on the achievement motivation of students, c) authoritarian and indifferent classroom management styles have negative impact on the achievement motivation of students, d) positive and significant correlation has been found between the achievement motivation and leadership development of students, e) PSEB board students have perceived democratic classroom management style of teachers more than CBSE board students, f) female students have perceived their teachers as more credible than male students; PSEB board students have perceived goodwill and trustworthiness of their teachers more than CBSE board students; students studying in small schools have perceived their teachers as more credible than students studying in large schools; and students from Majha and Malwa region have perceived goodwill of their teachers more than students from Doaba region, g) female students have perceived academic support, non-academic support and institutional facilities provided by the schools more than male students; government school students have perceived non-academic support more than private school students; private school students have perceived institutional facilities more than government school students; PSEB board students have perceived academic support and non-academic support provided by the schools more than CBSE board students; CBSE board students have perceived library facilities and comfort in classrooms provided by the schools more than PSEB board students; students from

small schools have perceived academic support and non-academic support provided by the schools more than students from large schools; students from large schools have perceived library facilities and comfort in classrooms provided by the schools more than students from small schools; students from Majha and Malwa region have perceived academic support, motivation, and services and resources provided by the school to promote and facilitate their physical, social and emotional development more than students from Doaba region; students from Majha region have perceived help, advice, guidance, suggestions and useful information provided by schools more than students from Doaba region; students from Majha region have perceived the facilities related to classrooms with platforms, adequate spacing and ventilation provided by the schools more than students from Malwa region; and students from Malwa region have perceived library facilities and comfort in classrooms provided by schools more than students from Majha region, h) private school students are having better attitude towards academics than government school students; CBSE board students are having better attitude towards academics than PSEB board students; PSEB board students have more interest towards sports and dramatics than CBSE board students; female students are having higher achievement motivation than male students; small school students have more interest towards sports and dramatics than large school students; large school students have better general interests than small school students; urban area students have better general interests than rural area students; students from Malwa and Doaba region are having better attitude towards academics than students from Majha region; and students from Majha and Malwa region have better general interests than students from Doaba region, i) private school students are more self-aware than government school students; government school students are more proficient in working with others in a common effort than private school students; PSEB board students are having more consciousness of self, congruence, commitment, common purpose, collaboration, controversy with civility and citizenship than CBSE board students; students from joint families are having more consciousness of self, commitment, collaboration than students from nuclear families; female students are having more consciousness of self, congruence, commitment, common purpose, collaboration, citizenship and change than male students; small school students are having more congruence, commitment, collaboration, controversy with civility and citizenship than large

school students; rural area students are having more congruence, commitment, common purpose, collaboration, controversy with civility and citizenship than urban area students; students from Majha region are having more congruence, common purpose, controversy with civility, citizenship and change than students from Doaba region; students from Majha region are having more common purpose and controversy with civility than students from Malwa region; students from Malwa region are having more congruence and commitment than students from Doaba region; and students belonging to the family size of 7 members have more controversy with civility (have recognised the fundamental realities of creative effort i.e. differences in viewpoint & differences must be aired openly with civility) than students belonging to the family size of 4, 5 and 6 members. From the study, it has been highlighted that there is a need to equip the teachers with democratic and laissez-faire classroom management styles, and to train the teachers through workshops on life skills where they can learn to establish and maintain high credibility. Government and schools must ensure that adequate academic and non-academic support and institutional facilities are given to students for making them achievement-oriented and good leaders.

KEYWORDS: Classroom Management Styles, Credibility of School Teachers, Institutional Support, Achievement Motivation, Leadership Development

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CHAPTER – I

THEORETICAL ORIENTATION OF THE PROBLEM

Education is a man making process determined to develop a wholesome personality of a student. It is an effective tool to cultivate right behaviours and abilities, and facilitates the environment to improve students' performance. Students are the future of our nation and they gradually become the contributory and productive members of the society. Joseph (2007) has rightly valued the citizens of a country as their qualities in the form of their competencies, skills, values and attitudes determine the development of the country. The country becomes progressive when the people do hard work to accomplish the fixed high standards and the target goals for themselves. Such people are concerned about their performance and known as achievement oriented. As education develops human resources and put efforts to foster individual talents and capabilities, it becomes essential that education moulds students into achievement oriented people. School is a place where a child develops balanced personality. Secondary education is very important for students as they grow and develop their personality during these formative years. According to Akpan and Umobong (2013), the greatest challenge of this century is to motivate students in order to determine their success in schools. It has become a global concern to make students learn in a best possible manner and sustain their interest to achieve excellence in their academic pursuits.

It is well said that learning is the modification of behaviour through experience. According to Pote (2018), the most essential part of learning is motivation which forces students to change their behaviour and makes the learning effective as well. Further, he added that the motivation produced by a desire to achieve something is called achievement motivation which governs behaviours relevant to achievement and learning. Achievement motivation is an integral part of the personality and the need for achievement presents in all people which improves their performances and makes them aspire for achieving higher goals and working on challenging tasks (Gaherao, 2012).

According to McClelland, Atkinson, Clark and Lowell (1953), need for achievement is very important with regard to the country's economic achievement

as citizens do better with a high need to achieve. Joseph (2007) found it applicable to education and mentioned that students attempting for excellence have high achievement motivation. As we are living in a modernised and globalised world, it is necessary to develop motivation among students so that they can lead the family, society and country successfully. Hence, it is very important to work with and monitor, help, guard, motivate and empower young students to live a successful life with happiness and contentment.

1.1 ACHIEVEMENT MOTIVATION

The research studies conducted in “education and psychology” have focused much on the study of students’ achievement motivation and highlighted its importance in the learning process. It is a psychological construct originated from motivation which determines the level of achievement of a person (Pote, 2018), known as “need for achievement (n-ach)”. In 1953, McClelland et al. attempted to study the concept of achievement motivation and initiated research in this area by developing tools to measure it. They studied achievement motive, an important psychological motive, intensively which refers to the aspirations of high standards and is concerned with setting goals and achieving them.

In fact, the concept of achievement motivation was originated from American psychologist, Murray (1938), who had given twenty seven basic psychological needs. Among that one was the social need which included the need for affiliation, self-esteem, autonomy, play, power and achievement. He defined the need to achieve as the desire to overcome difficulties and obstacles for doing the tasks perfectly and at fast speed, and considered it as a very important personal component. McClelland et al. (1953) began the study on human motivation by considering “need to achieve” from Murray’s (1938) work, and considered it as the distinct human motive which can be distinguished from other needs (McClelland, 1985). Hassanzadeh (2009) noted that achievement motive being a social need, is meant to overcome barriers and achieve high standards, and it focused on overtaking others by competing them. Jadhav (2010) described the need for achievement as “an individual’s preference for success under conditions of competition”.

According to McClelland (1961), the need to perform well and strive to get success is achievement motivation and it is “an individual’s constant pursuit to achieve excellence”. Atkinson (1964) defined it as “the comparison of performances with others and against certain standard activities”. Achievement motivation shows the tendency for achieving certain goals (Atkinson & Feather, 1966). McClelland (1985) explained achievement motivation as “the extent to which people differ in their need to strive for attaining rewards including physical satisfaction, praise from others and feelings of personal mastery”. Heckhausen (1967) noted that achievement motivation is related with strive to increase the capabilities for all activities. It creates a sense of achievement by working with diligence and vitality (Bigge & Hunt, 1980). Sprinthall, Sprinthall and Oja (1994) defined achievement motivation as “an intrinsic motive to achieve just for the sake of achieving rather than achievement in the service of some other motives”. It is the motivation to achieve success and excellence and gives the enjoyment of completing tasks by overcoming hurdles (Robbins et al., 2004). Aydm and Coskun (2011) stated that achievement motivation directs the actions which are to be made with perfect standards. Kumar and Bajpai (2015) noted that achievement motivation is the attitude to achieve rather than the achievements themselves. Rao and Reddy (2016) defined achievement motivation as a wish to do well and the behaviour required to accomplish tasks and excel others in performance. Sutha and Shirlin (2017) also called it as the attainment of excellence.

Achievement motivation is about stimulating one’s capabilities, making constant efforts and obtaining the sense of satisfaction. It brings progress as per the performance of students under certain targets. Jegede, Jegede and Ugodulunwa (1997) stated that achievement motivation motivated people to have desire for success and to put suitable efforts to achieve them. It focused on getting success to achieve life goals. Achievement goals can make an impact on the ways of performing tasks and representing desires for showing competence (Harackiewicz, Barron, Carter, Lehto, & Elliot, 1997). Achievement motivation is explained as a social form of motivation by Coleman (2001) which involved competitive drives for meeting the standards of excellence. Ghasemi, Rastegar, Ghorban and Roozegar (2011) noted that it is related to ways, planning and efforts to achieve special goals

and associated with feelings of self-worth. Eres (2011) stated that educational institutions looked for achievement motivation which is seen as behaviour related with performance excellence.

Akpan and Umobong (2013) noted that achievement motivation is a that force which encourages and stimulates the person for doing action to get success. From achievement motivation, Wani and Masih (2015) meant a strong psychological motive by which a person desires to excel. They believed that healthy and congenial atmosphere in which students develop can promote achievement motivation among them. Vallance (2004) mentioned achievement motivation as the motivation behind accomplishment. Okolo, Bahr and Rieth (1993) have focused on the equal role of students and institutions by mentioning achievement motivation as a result of the interaction of student characteristics and instructional practices. Achievement motivation is the route that leads our actions and behaviour which targets to achieve a certain criterion. The success or failure can be evaluated by considering the aim of the person. The aim may be related to school, work, hobbies, social relationships and moral conduct. It plays an important role in human life. Yadav (2015) defined it as “the level of one’s motivation to engage in achievement behaviours, based on the interaction of such parameters as need for achievement, expectancy of success, and the incentive value of success”. Thus, it is clear that many definitions and viewpoints have been evolved by the researchers to understand the achievement motivation.

1.1.1 MODELS OF ACHIEVEMENT MOTIVATION

Review of researches has revealed some models which are presented below to explain the concept of achievement motivation.

1.1.1.1 NEEDS-BASED MOTIVATIONAL MODEL OF ACHIEVEMENT MOTIVATION

Murray (1938) was the first person to identify the importance of three needs i.e. need for achievement, power and affiliation. Later, under the strong influence of the pioneering work of Murray (1938) i.e. A Model of Human Needs and Motivational Processes which was an integrated model of motivation, McClelland

(1961) proposed achievement motivation theory. This theory supports that a human being has three needs for achievement, power and affiliation, and these three needs can be differently acquired by the individuals to the different extents which further influence the behaviour. McClelland’s motivational needs theory includes three types of “motivational needs” which he identified in his book “The Achieving Society (1961)”. These needs have been explained in the Figure 1.1.

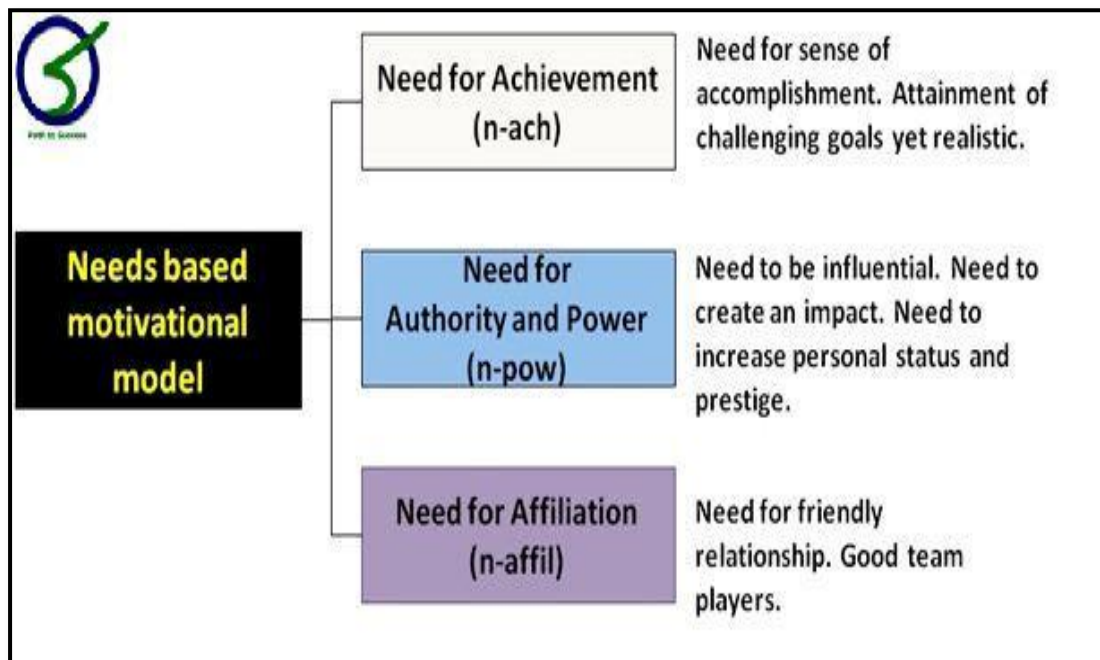


FIGURE 1.1: DAVID MCCLELLAND’S MODEL: AREAS OF NEEDS (EXTRACTED FROM POTE, 2018)

McClelland’s (1961, cited in Pote, 2018) three areas of needs have been summarised below:

- 1) The need for achievement (n-ach)- It means achieving success in competition while maintaining some standards of excellence (McClelland, Atkinson, Clark, & Lowell, 1958). The persons with high need for achievement seek achievement and seek to excel (Pote, 2018).
- 2) The need for authority and power (n-pow)- It is a concern with the control of the means of influencing a person (McClelland, 1961). The persons with high need for power seek power and authority (Pote, 2018).

- 3) The need for affiliation (n-affil)- McClelland (1961) defined it as “establishing, maintaining, or restoring a positive affective relationship with another person”. The person with high need for affiliation seek acceptance by people and friendly relationships with them (Pote, 2018).

This theory suggested that when an individual has a strong need, it motivates the behaviour of the individual that leads to need satisfaction.

1.1.1.2 EXPECTANCY-VALUE MODEL OF ACHIEVEMENT MOTIVATION

Wigfield and Eccles (2000) developed “the expectancy-value theory of achievement motivation” by using the fundamental principles of “expectancy value model” given by Atkinson in 1957. In the concern of this model, Joseph (2007) stated that an individual’s motive and his expectancy of being to achieve that need or motive in the given situations are two important things to predict his behaviour. The basic tenets of this theory include “expectancy, ability beliefs and achievement value”, and the model has been given in Figure 1.2.

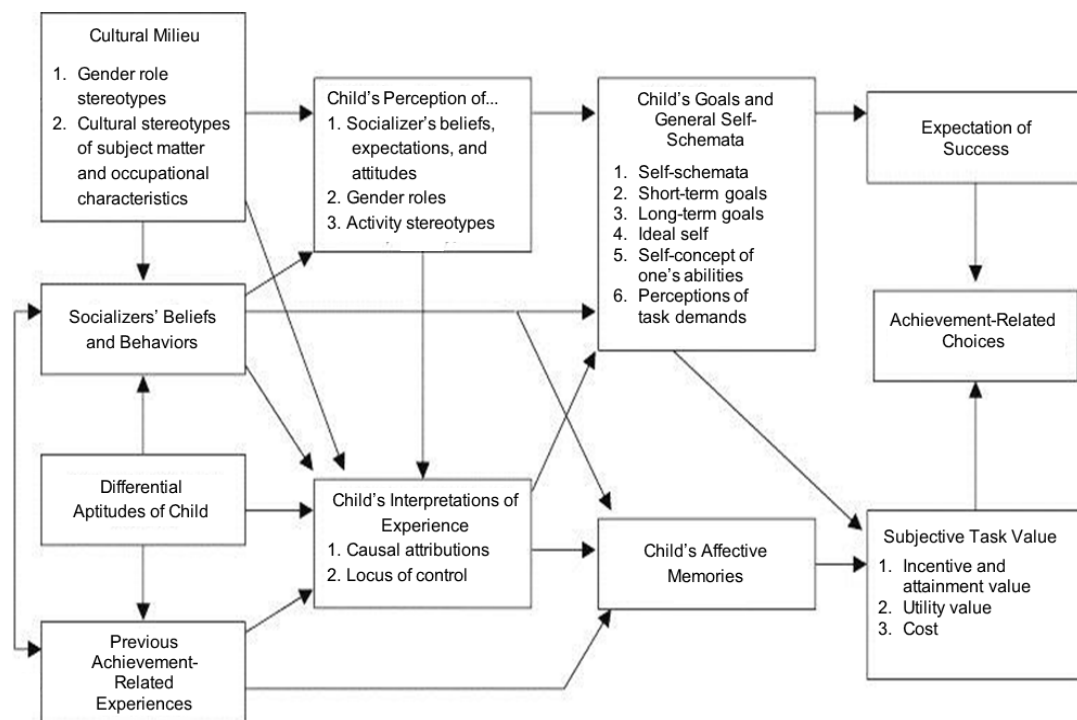


FIGURE 1.2: ECCLES, WIGFIELD, AND COLLEAGUES' EXPECTANCY-VALUE MODEL OF ACHIEVEMENT MOTIVATION (EXTRACTED FROM WIGFIELD AND ECCLES, 2000)

Eccles et al. (1983) explained expectancy as “a belief about the outcome of a difficult task in the future”. Wigfield, Tonks and Eccles (2004) explained ability beliefs as “the individuals’ assessment of their capabilities related to the task on-hand”. Achievement value was “distinct constructs related to task completion: attainment value or significance, personal value, usefulness of a task, and related cost” (Eccles & Wigfield, 2002). As explained by Eccles and Wigfield (2002), and Wigfield and Eccles (2000), this theory predicted that learners make more efforts towards those activities of which they perceive having values and expect to succeed.

1.1.1.3 HIERARCHICAL MODEL OF APPROACH AND AVOIDANCE ACHIEVEMENT MOTIVATION

Elliot and Church (1997) have integrated “classic and contemporary approaches of achievement motivation” in their “hierarchical model of approach and avoidance achievement motivation”. Elliot (1999) defined achievement motivation as “the energization and direction of competence-based affect, cognition, and behaviour”. The model has been shown in Figure 1.3.

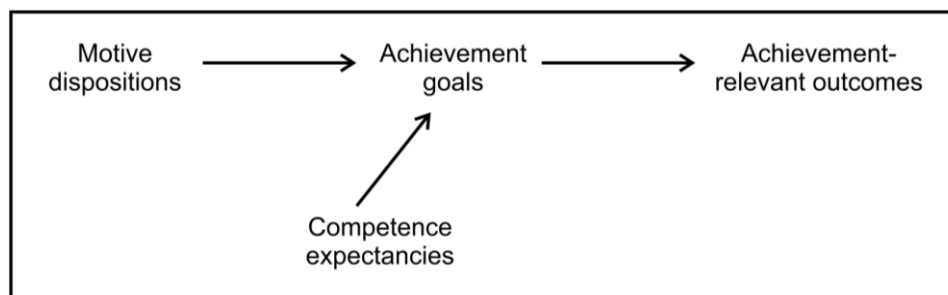


FIGURE 1.3: A HIERARCHICAL MODEL OF APPROACH AND AVOIDANCE ACHIEVEMENT MOTIVATION BY ELLIOT AND CHURCH (1997)

In the above figure, motive dispositions refer to “achievement motivation and fear of failure”; competence expectancies refer to high and low competence expectancies; achievement goals refer to “mastery goals which focused on development of proficiency, performance-approach goals which focused on development of positive judgment toward competency, and performance-avoidance goals which focused on avoiding negative judgment of competency”; achievement-relevant outcomes refer to “intrinsic motivation and graded performance”. They have found “mastery goals as grounded in achievement motivation and high

competence expectancies”, and facilitating intrinsic motivation; “performance-approach goals as grounded in achievement motivation, fear of failure and high competence expectancies”, and enhancing graded performance; and “performance-avoidance goals as grounded in fear of failure and low competence expectancies”, and proving harmful to both outcomes (Elliot & Church, 1997).

From above discussed conceptual models of achievement motivation, it can be summarized that under the strong influence of the pioneering work of Murray (1938), McClelland (1961) gave needs-based motivational model of achievement motivation which included “need for achievement, need for power and need for affiliation”, and suggested that when an individual has a strong need, it motivates the behaviour of the individual that leads to need satisfaction. In 2000, Wigfield and Eccles created the expectancy-value model, and reported the three tenets as “expectancy, ability beliefs and achievement value”. This model is based on the perception of the individual, and supports that achievement motivation is based on the individual’s expectancies and values as the individual makes more efforts towards the activities about which he has positive expectations and values. In their hierarchical model, Elliot and Church (1997) studied motive dispositions, competence expectancies, achievement goals and outcomes. In this model, motive includes achievement motivation as well as fear of failure. It is based on the approach and avoidance of achievement motivation. Among the various achievement motivation models, the needs based motivational model by McClelland (1961) has been found as the widely recognized and used model in the research literature. It has received the greatest amount of support in existing research studies of achievement motivation, and includes “n-ach”, a term usually used to define achievement motivation by many researchers. Therefore, following the continuity in research and the context of the study, wherein students are in their adolescence stage and think idealistically and their desires to achieve in life is very high; the McClelland model of achievement motivation is used in the present study.

1.2 LEADERSHIP DEVELOPMENT

Leadership is taking actions in order to motivate the followers so that they can make efforts to attain the target purposes. “It is a purposeful, collaborative,

values-based process that results in positive social change” (Komives, 2011). It is the ability and readiness to inspire, direct, and influence the actions of others (Brinkley & Byers, 1982) and includes the ways through which a person or people help a group in the setting and attainment of desirable goals (Kreitlow, Alton, & Torrence, 1965). Leadership is about creating and sharing a vision, and achieving the mission for realizing that vision for the interests of all.

Many researchers have defined the term leadership as a process wherein a leader by way of his personal influence is able to get others complete the task (U.S. Army, 1983), and achieve a common goal (Northouse, 2007). Kruse (2013) defined it as “a process of social influence which maximizes the efforts of others, towards the achievement of a goal”. Zeitchik (2012) explained leadership as “inspiring others to pursue your vision within the parameters you set, to the extent that it becomes a shared effort, a shared vision, and a shared success”. In another view, Gini (1998) stated that leadership is about “getting people to work together to accomplish objectives that might not otherwise occur” and Rost (1993) believed that it is “an action represented through an influencing relationship between a leader and followers who intend changes to reach common goals”.

Leadership development involves the development of those qualities and skills through which a leader leads the group, communicates convincingly, and instills confidence in the followers. McCauley, Veslor and Ruderman (2010) defined leadership development as “the expansion of a group’s capacity to produce direction, alignment, and commitment”. Komives, Lucas and McMahon (2007) described it as “a relational and ethical process of getting people together attempting to accomplish positive change”. Further, Day (2000) stated that it is “a function of the social resources that are rooted in relationships” and it focuses on interpersonal skills of social awareness and social skills. Leadership is “a set of skills and attitudes” which can be developed through instruction, guidance and practice. In a book “Leadership Challenge”, Kouzes and Posner (1995) asserted “leadership is an observable and learnable set of practices”, and with feedback and practice, abilities can be improved.

Leadership in the 21st century rests in leaders' ability to cultivate resilience and innovation within individuals, teams, and the workplace as a whole. The person who can think and take action creatively at the time of crisis and in difficult circumstances is known as a leader. Good leaders are always needed as they bring prosperity with them to the whole mankind. Cox (1988) urged the need to develop "leadership knowledge, attitudes, skills and aspirations" among youth for the progress of humankind and survival. According to Gardner (1987), "skills essential for effective leadership develop strikingly in adolescent years". Van Linden and Fertman (1998) stated that students are not born leaders and in adolescent age leadership potential of individuals should be awakened.

Adolescence is a critical time to develop leaders for the future who will reflect universal human values through their decisions and efforts. According to Heath (2005), "the development of leadership abilities in youth should rank high on the agenda of school administrators, teachers, parents, and all who work with and on behalf of young people". At Stetson University, the office of Leadership Education and Development offers various opportunities focusing on exploring the leader and applying personal leadership abilities to positively work with others. Secondary Education Commission (Government of India, 1952-53), considering dominant needs of the country, has formulated the aims of secondary education i.e. developing democratic citizenship, vocational efficiency, development of personality or character and education for leadership. The leadership development emerges as the need of the hour as the commission stated "since the youth of today assume leadership in different walks of life tomorrow, special function of the secondary education is to train persons who will be able to assume the responsibility of leadership in social, political, industrial and cultural fields".

As students are the future leaders of our society, development of leadership is necessary among them. In schools, many opportunities i.e. selection of class representatives and sports team captain, arrangement of different competitions, school camps, community projects etc. are given to students so that they can develop leadership capacities, and a teacher encourages leadership development throughout all circumstances. In order to develop the leadership among high school students, Zimmerman-Oster and Burkhardt (1999) considered teachers' role as significant.

Posner (2004) noted that in order to transform students into effective citizens, teachers' role is very important.

The north Carolina Professional Teaching Standards Commission (2007) stated “teachers trained students to develop leadership qualities through various methods with the objective of inculcating qualities of cooperation, collaboration, communication with which students strengthened their social ties, improve their communication skills, effectively interact and decide”. At adolescent stage, students are idealistic, tireless, and enthusiastic. So, teachers provide opportunities for encouraging leadership development. In today's world, the skills of leadership, motivation and drive to strive for success and excellence are required, therefore, it is necessary for students to become suitable for such a global society.

1.2.1 THEORIES OF LEADERSHIP

The concept of leadership has been widely defined, and leadership theories are constantly evolving (Abdrbo, 2012). Many ideas of leadership and leadership development have been found from the literature to explain the leadership phenomenon. Despite diverse viewpoints, major leadership theories can be explained as following:

1.2.1.1 GREAT MAN THEORY

According to Karnes and Bean (1996), great man theory was advocated by Galton (1869) and it was the earliest representation of the trait leadership theory. It was also known as the grand daddy of leadership concepts which proposed that a single great man would have natural, heroic leadership traits, and would influence others to follow (Daft, 2005). It assumed “some people are born to be leaders while others have to be led” (Organ, 1996). Great-man approach to leadership asserted that individuals born with energy and intelligence tend to become leaders (Wright, 2001). “It was believed that leaders have the hereditary properties that make one an effective leader” (Janc, 2004).

1.2.1.2 TRAIT THEORY

Trait theory highlights specific characteristics such as “appearance, intelligence and eloquence” which were displayed by good leaders (Bass, 1981). It

assumed “some people have certain innate characteristics or traits that make them better leaders than others” (Organ, 1996). Komives, Lucas and McMahon (1998) believe “there is a set of innate, natural characteristics that make certain individuals leaders”. In this leader-oriented model, these characteristics differentiate one leader from a non leader (Janc, 2004), and these qualities are possessed by leaders only (Northouse, 2001). According to Abdrbo (2012), this theory gave a list of many qualities such as “intelligence, personality, abilities, social traits and physical characteristics” which have proved as the benchmarks.

1.2.1.3 SITUATIONAL THEORY

Situational theory assumed “leaders act based on a situation and change their behaviour accordingly” (Fielder, 1967). It proposed that the effectiveness of a leader entailed possessing the leadership characteristics and using them within the demands of the circumstances (Karnes & Bean, 1996). This theory focuses on adopting that style of leadership which can fulfil the needs of followers because it supports that leadership comprises both directive and supportive aspects which can be used as per the situation. “The leader’s task is to analyze a particular situation and determine the appropriate degree of directive and/or supportive behaviours necessary to address employee needs” (Northouse, 2001).

1.2.1.4 PATH-GOAL THEORY

Path-goal theory emphasizes the need to supervise the followers and to accomplish the goal (Chemers, 1995; Hollander, 1978). According to Northouse (2001), “it is about how leaders motivate their followers to work in the right direction to achieve desired goals and it emphasizes the relationship between the leaders’ style and the characteristics of the subordinates, and the work setting”. This theory proposes that a leader’s responsibility is to support the followers through minimizing the difficulties.

1.2.1.5 TRANSACTIONAL THEORY

According to Locke (1999), “transactional leadership theory is the leadership that maintains or continues the status quo”. In this theory, followers follow the instructions of the leader and receive the reward, in this way, the exchanges occur between the two parties which make it a relational process. According to

Sergiovanni and Starratt (1993), “these transactions are governed by instrumental or moral values such as fairness, honesty, loyalty, integrity”. Howell and Avolio (1993) described transactional leadership as “leader-follower relationships based on a series of exchanges or bargains between leaders and followers”. Transactional leaders also favoured systems of rewards or negative feedback that only allowed for one-way communication and an effective transactional leader must have well-formed cognitive, technical, and interpersonal skills (Bass, 1990).

1.2.1.6 TRANSFORMATIONAL THEORY

Transformational leadership theory presumed that the leader possess cognitive, conceptual and interpersonal skills (Elmuti, Minnis, & Abebe, 2005). It asserted “everyone has the potential to be a leader, and that leadership can occur in formal (positional) and informal (non-positional) contexts and the objective of a transformational leader is to increase awareness of organization goals and encourage all organizational constituents to invest in advancing towards those goals” (Wright, 2001). Transformational leaders are role models who not only provide a clear vision and mission, but also typically share power and teach others how to help find success (Bass, 1990). They concentrate on building relationships and facilitating interaction filled with two-way communication and decision-making (Boseman, 2008).

1.2.2 MODELS OF LEADERSHIP DEVELOPMENT

Leadership development has been developed for “managerial and adult leadership” but studies related to “youth leadership developments” are rather limited (Ricketts & Rudd, 2002). So, to understand the concept of leadership development, models have been presented below:

1.2.2.1 VAN LINDEN AND FERTMAN MODEL

Van Linden and Fertman (1998) conducted research on adolescents and leadership development, and suggested three levels in leadership development with each stage supporting different skills and moving towards greater capability. They proposed the following three distinct stages of leadership development in their model of youth leadership development:

1) Awareness

In the awareness stage, the person become aware of his leadership potential and begins to see himself as a leader (Simone, 2012). The importance is given to leadership abilities and potential. According to Fertman and Van Linden (1999), “the adolescents have accumulated a lot of information about how people become leaders and what kinds of leaders achieve such distinction”. “Students at this stage tend not to perceive themselves as leaders and require help to begin identifying and building on their leadership potential” (Hine, 2011). In stage one, children got an overview and began to build their own definition of leadership. The imperative requirement of the first stage was to help the child to achieve his or her potential to become a leader (Evans, 2014).

2) Interaction

Interaction stage is related to exploration to build and strengthen leadership skills (Simone, 2012). In this stage, According to Fertman and Van Linden (1999), “individuals expand and strengthen their leadership potential and skills, and growth in leadership abilities and confidence is solidified through interaction”. “This stage also seeks to involve adolescents in activities where they can develop their leadership skills through active participation” (Hine, 2011). Stage two is where students would take the leadership skill theory they have learned and translate them into actions, with adult supervision guided practice. Acting like a leader became more concrete and allowed for the student to practice and work towards mastery of the skills (Evans, 2014).

3) Mastery

According to Hine (2011), “the mastery stage requires students to hone leadership skills specific to situations and activities in life, moreover, they work to influence others by applying learnt skills and leading by example”. The persons practiced and mastered the leadership skills and concepts (Simone, 2012). Students saw their abilities grow and their leadership skills became a foundation for enriching personal behaviour throughout all arenas and areas of interest that they had (Evans, 2014).

Further, Van Linden and Fertman (1998) identified “five dimensions of leadership that are found within each leadership development stage” which included “cognitive, emotional, and behavioural aspects of leadership development” i.e. leadership information (knowing about leaders and leadership through numerous sources and experiences), leadership attitude (thoughts and feelings toward identifying themselves as leaders), communication skills (exchanging of communication to influence each other), decision making skills (making choices ethically and in a socially responsible way) and stress-management skills (reacting and dealing with stress) (Simone, 2012).

1.2.2.2 RICKETTS AND RUDD MODEL

Ricketts and Rudd (2002) conducted “a meta-analysis of the youth leadership development literature”, and constructed a model for the training and development of leadership in young people. This model was proposed as “a curriculum framework for teaching leadership to all students” and comprised three stages and five dimensions of leadership development which have been depicted in the Figure 1.4.

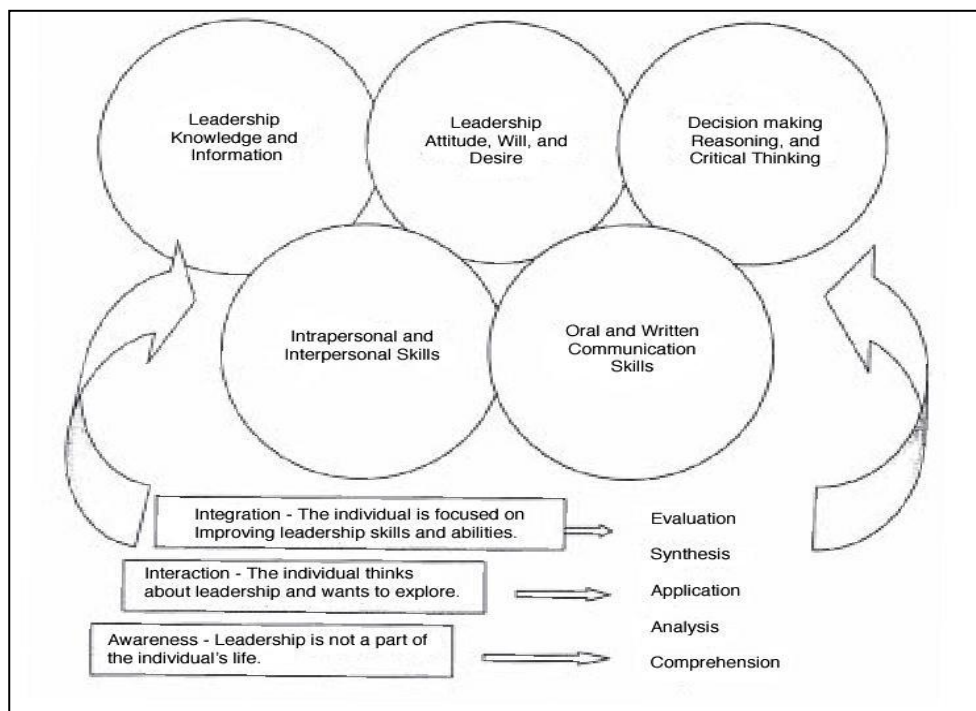


FIGURE 1.4: MODEL FOR YOUTH LEADERSHIP CURRICULUM BY RICKETTS AND RUDD (2002)

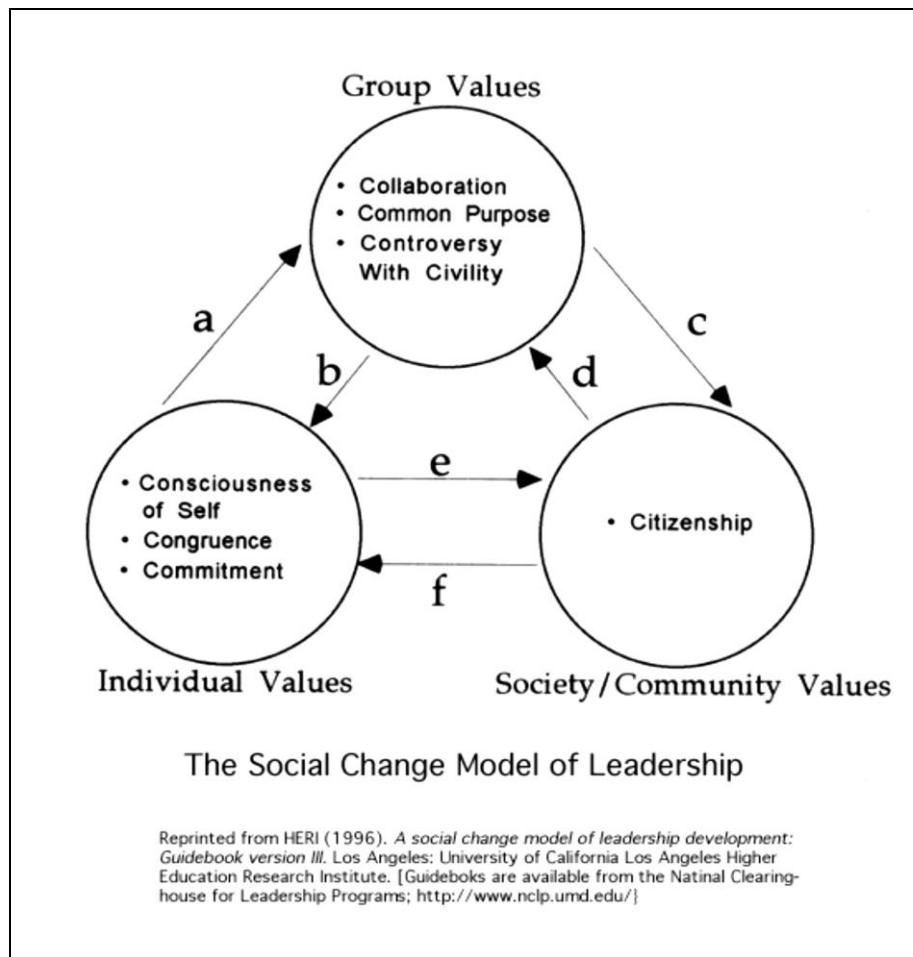
They introduced three stages of leadership development which included “awareness (serves as the orientation to the curriculum), interaction (involves student exploration of leadership), and integration (involves student practice and mastery of leadership development activities and concepts), and these stages seek to build on the experience and perception of the students in order to enhance cognition and behaviour in leadership development” (Ricketts & Rudd, 2002).

1.2.2.3 SOCIAL CHANGE MODEL

In contrast to the previous studies, theories and models of leadership development discussed, Social Change Model [SCM] views leadership as “a collaborative process intended to help individuals and groups foster positive social change in their organization or community” (Tyree, 1998) and “is one of the most widely used models of leadership development by both practitioners and researchers” (Komives, 2011). “Social change model of leadership development” was developed through the combined efforts of the Higher Education Research Institute [HERI] and the Eisenhower Leadership Development program for undergraduate college student leadership (HERI, 1996). This model assumes that leadership is about trying to accomplish change. Leaders try to make their organization, their campus, their community, or their world a better place. One doesn’t decide to be a leader in order to have a title or position of power. Instead, one sees something that should be changed and steps up to work with others to be a part of that change. The concept of “socially responsible leadership” is a critical approach to the “study of leadership” and adopted by Social Change Model (HERI, 1996). This approach “is based on collective action, shared power and a commitment to social justice (HERI, 1996)”, and “encourages a leadership for all approach, allowing leadership possibilities for all students who want to engage in leadership and create change (Kovar, 2014)”.

HERI’s (1996) “value-based model of leadership” with three perspectives i.e. individual (personal qualities required for collective action and social change), group (qualities required to work effectively in groups for fostering individual

development and social change), and community/society (qualities required to involve in positive change in the community to promote group collaboration and develop individual character) included values which interact to promote leadership for “social change”. As each value starts with the letter C, so, all the values are known as “Seven C’s”. Since change is an assumption of this model as well, so, SCM includes the value of “change” as the eighth critical value. The SCM comprised eight core components i.e. “consciousness of self, congruence, commitment, collaboration, common purpose, controversy with civility, citizenship, change”. The Seven C’s in respective categories or perspectives of the model has been depicted in the following Figure 1.5:



**FIGURE 1.5: SOCIAL CHANGE MODEL OF LEADERSHIP
BY HERI (1996)**

The Seven C’s of the social change model are explained in Table 1.1.

TABLE 1.1: VALUES OF THE SOCIAL CHANGE MODEL BY HERI (1996)

The Seven C's: The Critical Values of the Social Change Model	
Individual Values	
Consciousness of Self	Being self-aware of the beliefs, values, attitudes, and emotions that motivate you to take action. Being mindful, or aware of your current emotional state, behavior, and perceptual lenses.
Congruence	Acting in ways that are consistent with your values and beliefs. Thinking, feeling, and behaving with consistency, genuineness, authenticity, and honesty toward others.
Commitment	Having significant investment in an idea or person, both in terms of intensity and duration. Having the energy to serve the group and its goals. Commitment originates from within, but others can create an environment that supports an individual's passions.
Group Values	
Collaboration	Working with others in a common effort, sharing responsibility, authority, and accountability. Multiplying group effectiveness by capitalizing on various perspectives and talents, and on the power of diversity to generate creative solutions and actions.
Common Purpose	Having shared aims and values. Involving others in building a group's vision and purpose.
Controversy with Civility	Recognizing two fundamental realities of any creative effort: 1) that differences in viewpoint are inevitable, and 2) that such differences must be aired openly but with civility.
Community Values	
Citizenship	Believing in a process whereby an individual and/or a group become responsibly connected to the community and to society through some activity. Recognizing that members of communities are not independent, but interdependent. Recognizing individuals and groups have responsibility for the welfare of others.
Change	Believing in the importance of making a better world and a better society for oneself and others. Believing that individuals, groups and communities have the ability to work together to make that change.
(Higher Education Research Institute, 1996, p. 21; Tyree, 1998, p. 176; and Astin, 1996, p. 6-7)	

From the above discussion, it can be summarized that in 1998, Van Linden and Fertman proposed “awareness, interaction and mastery stages of leadership development” in their model of youth leadership development. Further, they identified five dimensions of leadership i.e. “leadership information, leadership attitude, communication skills, decision making skills and stress-management skills” that are found in each stage. Similarly, following Van Linden and Fertman Model, Ricketts and Rudd’s (2002) model also continued with three stages i.e. awareness,

interaction, integration, and five dimensions of leadership development i.e. “leadership knowledge and information, leadership attitude, will, and desire, decision making, reasoning, and critical thinking, intrapersonal and interpersonal skills, oral and written communication skills”. In contrast to the above discussed models of leadership development which are stage specific as they include three stages to develop and train leadership to students, Social Change Model (HERI, 1996) is a value based model, aimed to bring social change and encourage leadership for all approach. It views leadership as “a collaborative process intended to help individuals and groups foster positive social change in their organization or community” (Tyree, 1998) and “is one of the most widely used models of leadership development by both practitioners and researchers” (Komives, 2011). This model assumes that leadership is about trying to accomplish change which involves individual, group and community values. So, Social Change Model (HERI, 1996) has been employed in the present study and it comprises eight values i.e. “consciousness of self, congruence, commitment, collaboration, common purpose, controversy with civility, citizenship, change” used to develop leadership for achieving the ultimate objective of social change.

1.3 CLASSROOM MANAGEMENT STYLES

Stoner and Freeman (1997) described management as “the process of planning, organising, leading and controlling the work or members of an organisation and using all available organisational resources”. According to Hornby (2001), management is controlling and decision making in any organization. According to Woody (2001), “management implies reflection through advanced planning, organization, and anticipation of problems”. Dyikuk (2005) viewed management as the cooperative effort of employees to achieve a common goal. It is a “managerial process of forming a strategic vision, setting objectives, crafting a strategy and then implementing and executing the strategy” (Kliniken, 2006).

A style defines the way to pursue something. Management style is the manner, outlook, attitude, and behaviour employed by a manager to deal the subordinates. It is the act of managing, handling, directing and controlling the working of an institution or organization. Managers perform many roles in an

organization and handle various situations using their style of management. Successful management style effectively builds teams and motivates its employees and organization. Pathack (2005) noted that management styles affected the effectiveness and performance of organizations.

Managerial effectiveness of a teacher means a teacher's abilities and skills to use the strategies effectively which he has planned for classroom management, and those strategies correlates with his teaching values. According to Savage and Savage (2010), "management refers to one's role as a teacher in creating a classroom environment where success is possible". Abbas, Nawaz, Javed and Shahzad (2015) stated that effective management is very important to accomplish the national educational objectives.

Martin, Yin and Baldwin (1998) stated, "classroom management is a broad umbrella term describing a teacher's efforts to oversee classroom activities such as learning, social interaction and student behaviour". It is a process to maintain the controlled environment to increase learning (Marzano & Marzano, 2003). Classroom management facilitates teachers to maintain discipline, control and manage their classroom. Obi (2004) opined that the teacher is responsible for learners' personality development in the long term interest of society. To perform this responsibility, he must strive to monitor students' individually and in groups on a continuous basis. The continuous observation and guidance of teacher is what is known as classroom management. Chamundeswari (2013) stated, "effective classroom management is a climate emphasizing and conducive to proper learning (proper comprehension and assimilation), good behaviour and positive inter personal relationships, and the teacher needs to encourage this learning by utilizing new strategies and new techniques". Strong (2002) stated that teachers could have powerful and long lasting influence over students which is directly related to "how they learn, what they learn, how much they learn, and ways they interacted with each other", and it is important to understand "the influence that teachers have on their students, being aware of methods and strategies they use to achieve academic and social outcomes, as well as creating positive attitude towards learning". The main duty of a teacher is to successfully handle the classroom so that students' learning can be ensured.

Classroom management styles are those styles that determine students' learning in the classroom. These styles influence teachers' usage and ability to utilize resources, achieve instructional objectives and influence students' actions and behaviour. Thus, classroom management is a process of optimal use of personal and official resources, finances and infrastructure in the functioning of classroom. According to Bauer and Sapona (1991), "it is the process of setting up an environment where instruction and learning happen freely and easily". Hornby (2001) stated that a teacher's role as an expert and leader is to create a positive relationship with students using appropriate classroom management styles. According to Dunbar (2004), "classroom management styles involved establishing clear rules, procedures and instructing students on how to follow them". Dyikuk (2005) noted that teachers differ in their classroom management style on the basis of subject being taught, objectives of lesson and the students. Karns (2005) stated that learning only takes place where teachers and students have positive relationships with each another and teachers' role is to help learning to occur through appropriate classroom management style.

1.3.1 MODELS OF CLASSROOM MANAGEMENT STYLES

Classroom management is "a comprehensive term" used to understand the teachers' diverse actions which facilitate learning (Badiei, 2008). Classroom management styles differ from one teacher to another as per their experience, abilities, knowledge etc. No one model works successfully all the time or with all children (Wolfgang, 1999). Review of researches has revealed some models which are presented below to explain the concept of classroom management styles.

1.3.1.1 CONTINUUM OF TEACHER BEHAVIOUR (WOLFGANG AND GLICKMAN, 1986)

Wolfgang and Glickman (1986) gave "A model to classroom interaction and discipline" considering "the degree of teacher control as an organizer for their categorization", and presented a continuum of teacher behaviour. They suggested

that teachers fall into one of three classroom management approaches i.e. non-interventionist, interactionalist and interventionist (Danyluk, 2012) as shown in the following Figure 1.6:

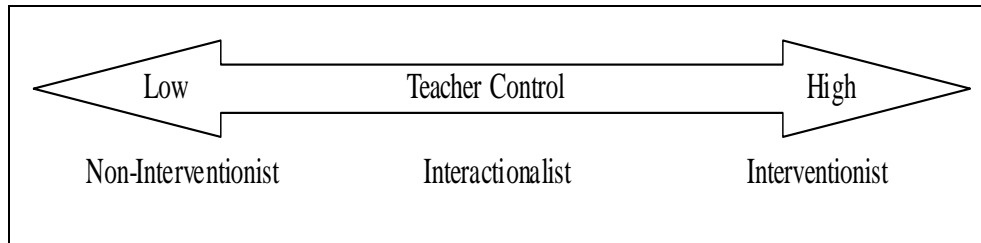


FIGURE 1.6: CONTINUUM OF TEACHER ATTITUDES TOWARDS CLASSROOM MANAGEMENT (EXTRACTED FROM BADIEI, 2008)

According to this model, “interventionist teachers believe that students learn appropriate behaviours primarily when their behaviours are reinforced by teacher generated rewards and punishments, at the other extreme non-interventionists teachers believe that students have an inner drive that needs to find its expression in the real world, in the middle, interactionalist teachers believe that students learn appropriate behaviours as a result of encountering the outside world of people and objects” (Wolfgang & Glickman, 1986). As explained by Badiei (2008), “interventionist teachers contended that teachers should exercise a high degree of control over classroom activities, non-interventionists suggested that students should be allowed to exert significant influence in the classroom and that teachers should be less involved in adjusting student behaviours, interactionalists suggested that students and teachers should share responsibility for classroom management”.

1.3.1.2 CLASSROOM MANAGEMENT MODEL (LEVIN, KERR, & ELLIOT, 2005)

Levin et al. (2005) described classroom management model as “the three points on a continuum that move from student-directed towards teacher-directed practices”, and presented three theories of classroom management. The following Table 1.2 explained the model:

TABLE 1.2: CLASSROOM MANAGEMENT MODEL BY LEVIN ET AL. (2005)

Question	Student-Directed	Collaborative	Teacher Directed
Primary responsibility for management	Student	Joint	Teacher
Goal of management	Caring community focus and self-direction	Respectful relationships, academic focus	Well-organized, efficient, academic focus
Time spent on management	Valuable and productive	Valuable for individual but not for group	Wasted time
Relationships within management system	Caring personal relationships	Respect for each other	Non- interference with each other's rights
Teacher power bases	Referent, expert	Expert, legitimate	Reward! coercive

The first theory is called student-directed theory which supports that the main responsibility to manage students' behaviour lies on the students end. The second theory is called collaborative theory which supports that the main responsibility to manage students' behaviour lies equally on both the students and the teachers. The third theory is called teacher directed theory which supports that the main responsibility to manage students' behaviour lies on the teachers.

1.3.1.3 PARENTING TYPOLOGY (BAUMRIND, 1971)

The parenting typology created by Baumrind (1971) is known as "parenting styles" which were first categorized as "authoritarian, permissive and authoritative". Santrock (1998) modified these styles as "authoritative, authoritarian, indulgent, and permissive". These four styles have been applied to classroom management and in developing measurement devices. Chamundeswari (2013) adopted Baumrind's (1971) styles who classified classroom management styles in two dimensions i.e. "type of control exercised over students and degree of involvement of teachers with students". She included contingent style as another significant teacher management style in her study along with four styles of Baumrind (1971). The above discussed two dimensions and four styles are shown in Figure 1.7.

	High Involvement	Low Involvement
High Control	<i>Authoritative</i>	<i>Authoritarian</i>
Low Control	<i>Indulgent</i>	<i>Permissive</i>

**FIGURE 1.7: COMBINATIONS OF CLASSROOM MANAGEMENT STYLES
(EXTRACTED FROM CHAMUNDESWARI, 2013)**

1.3.2 DIFFERENT STYLES OF CLASSROOM MANAGEMENT

According to Yasar (2008), “classroom management is a multifaceted concept”. Researchers categorize different styles of classroom management based on the various views related to classroom management. Wong and Wong (2001) defined that teachers with authoritarian style “placed firm limits on the students by assigning fixed seats to them, discouraging them to move freely around the classroom, not allowing them to interrupt the teacher and giving no indication that he cares about them”, teachers with laissez-faire style “established few rules for students which are not enforced consistently and undesirable students’ behaviour are not addressed”, teachers with indifferent management style “are not very involved in the class and have few rules and demands, and appeared uninterested, lacked self control and confidence to discipline students”.

Dyikuk (2005) stated that classroom management styles underlined the performances of learners and are concerned about developing learners academically and intellectually by adopting child centred approach. He stated that a teacher with autocratic style “is self-centred as he is after the outcome, believed in himself, made decisions without consulting the students”, a teacher with democratic style “is class centred as he respected students’ opinions within the classroom, decisions are jointly taken by both teachers and students, and setting of objectives and achievement of objectives are shared”, a teacher with laissez-faire style “took passive stand towards the problem of the students, lacked independent decisions which resulted in low performance and little achievement of classroom objectives and allowed too much

freedom to the students to do what they like”, a teacher with bureaucratic style “focused on the rules and procedures of the classroom and emphasized no deviation from the laid down rules regardless of prevailing circumstances”.

According to Chen (2008), “authoritarian teachers accustomed to have authority and established all class rules and specified consequences for rule violations, laissez faire teachers provided emotional support to their students and placed more emphasis on independent learning and rarely set expectations for students, democratic teachers tended to be flexible and responded to various needs of students and gave more freedom to students to make decisions in the teaching and learning environment, and indifferent teachers focused on their personal work and rarely spend time with students beyond class time, offered little or no emotional support, and rarely established rules to control students’ learning experiences”.

Research and studies related to classroom management styles have revealed several styles i.e. authoritarian, democratic, laissez-faire and indifferent (Chen, 2008; Chang, 2010; Munir & Rehman, 2016), authoritarian, authoritative, laissez-faire and indifferent (Jones, 2001; Dunbar, 2004; Cadeau, 2008; Skvarla, 2008; Guangco, 2008; Yilmaz, 2009; Sadik & Sadik, 2014; Hoots, 2014; UNESCO, 2015), authoritative and authoritarian (Aldhafri & Alrajhi, 2014), traditional, authoritarian, democratic and leisurely (Ali & Badah, 2014), autocratic, democratic and disinterested (Pektas & Saygili, 2014), authoritative, authoritarian, indulgent and permissive (Chellal, 2013), authoritative, authoritarian, indulgent, permissive and contingent (Chamundeswari, 2013). For the theoretical framework of the present study, classroom management styles have been classified as “authoritarian, laissez-faire, democratic and indifferent (Chen, 2008)”. For each classroom management style, four dimensions have been conceptualised i.e. “classroom discipline, classroom learning environment, teacher-student relationship and establishment of rules” which are depicted in Figure 1.8.

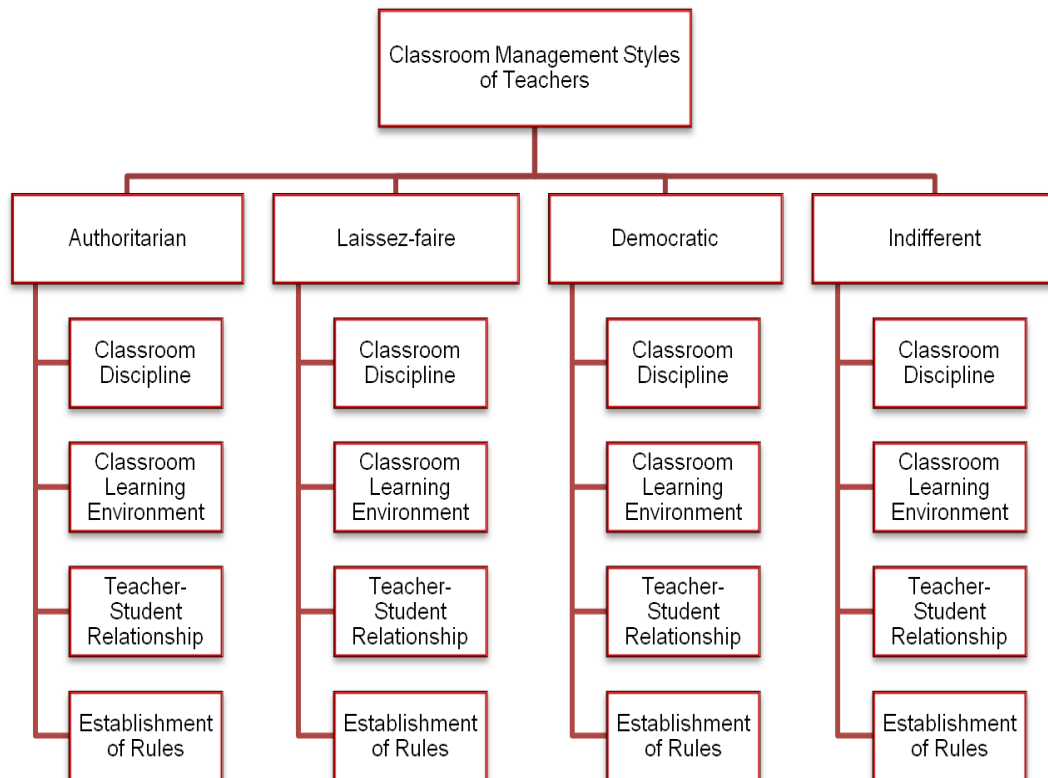


FIGURE 1.8: THEORETICAL MODEL OF CLASSROOM MANAGEMENT STYLES

The four types of classroom management styles have been explained as follows:

1) Authoritarian Classroom Management Style

This style is characterized by various behavioural regulations on students. Teacher has the supreme authority and behaves in a cold manner. Numerous restrictions are imposed on students. Under this style, students are not involved in any decision making and concern as the teacher himself establishes all classroom rules. It creates an atmosphere where students do not and even cannot ask anything from the teacher as they are supposed to follow the directions only which lead to the lack of verbal exchange and practice for the communication skills. It follows and focuses on a well-structured classroom by assigning the seating arrangement to the students. It does not welcome any discussion and suggestion from the students. Generally, the classroom environment remains quiet in this style. A teacher with this style gives no clue to the students that he cares for them. It is concluded that an authoritarian teacher expects complete obedience from students.

2) Laissez-faire Classroom Management Style

It is characterized by few rules and demands on students. It involves the caring and nurturing teachers who provide emotional support to their students and always try not to hurt their students' feelings. This style encourages independent learning for students and makes provisions for students to have dominant role in the decision and classroom. A laissez-faire teacher accepts students' impulses and actions. Students undesirable behaviours are not addressed which lead to the uncontrolled pupil actions.

3) Democratic Classroom Management Style

It is characterized by firm expectations for student behaviour and learning. This style encourages students' participation in the formation of policies and rules. It presents the teacher as a leader, participant and facilitator. Teacher establishes good relations with students by creating class-centred environment. It responds to students' various needs and requirements. Students feel their value in the classroom as teacher respects the feelings and ideas of the students. Teacher solicits students' opinions to create a learning environment. Teacher remains flexible under this style.

4) Indifferent Classroom Management Style

It is characterized by the indiscipline in the classroom. It presents an aloof environment where teachers offer no support to their students. So, in this kind of environment very less learning occurs. An indifferent teacher does not prepare the teaching materials but use the same stuff every year. Teacher shows least interest and involvement in the classroom gradually leading to very few opportunities to practice communication skills. Teacher rarely pays attention to students as his/her focus remains on personal work. Teacher appears to be killing time which develops low achievement motivation among students. He likely seemed not to impose any rules on the students.

The four dimensions for each classroom management style have been discussed as follows:

1) Classroom Discipline

According to Jones (1979), “discipline is the business of enforcing simple classroom rules that facilitate learning and minimize disruption”. Discipline is defined as “the actions that facilitate the development of self-control, responsibility, and character (Savage & Savage, 2010)”. Classroom discipline is required for the accomplishment of the teaching-learning process. According to Ministry of Education Guyana [MEG] (2015), it includes the plans and approaches employed during instructions to handle the behaviours and attitudes of students. It helps to create the learning environment by setting limits for students and guiding their behaviour. It also refers to the control of desirable and undesirable behaviour of the students by the teacher. Classroom discipline is necessary to monitor the progress of students by encouraging the desirable and discouraging the undesirable behaviour of the students. Through classroom discipline, teachers teach students about which behaviours are expected under specific situations. In this way, teachers transmit their expectations to students. It prohibits that student behaviour which interferes with the operations of classroom. It helps to create an environment in which positive teaching-learning process can occur. Classroom climate becomes conducive to learning without disruptive behaviours which steal instructional time and positive energy. Classroom discipline maintains classroom standards to minimize disruptions and maximize learning.

2) Classroom Learning Environment

Learning environment means the overall composite picture of physical infrastructure, environment and cultural aspects in which learners learn. Classroom learning environment encompasses the culture of a class “including how individuals interact with and treat one another, the ways in which teachers may organize an educational setting to facilitate learning”. It refers to the classroom interaction in which both teacher and students are involved. It is the careful arrangement and presentation of the stimulus for teaching-learning process which promote students’ learning. It is the creation of the learning atmosphere as per the framed curriculum

and tends to give learning experience to the students. Classroom learning environment is vital to students' success and impacts them in many ways.

3) Teacher-Student Relationship

Relationships are very important part of human life. Students spend most of their time at school and try to make relationships with people around him especially the teachers. Teacher-student relationship is very important for students as they spend ample time with their teachers. Teacher-student relationship develops students' behaviour and creates better people for the future. This relationship is defined as a caring and authentic relationship between teacher and the students. It refers to the understanding, respect, care, support and communication between teacher and students. It is the extent of the comfort level between teacher and students which makes teaching-learning process easy and fruitful. It includes the willingness and interest of teacher and learner for teaching-learning process. Teacher monitors the students regularly to become aware of their problems which subsequently develop secure feelings in them. Communication between teacher and students creates connection, and both demonstrate respect for each other. When a teacher values and cares for students, they become more willing to comply teacher's wishes. Students and teacher need to develop positive and trusting relationships for an effective classroom.

4) Establishment of Rules

As defined by Webster's dictionary, a rule is a fixed principle that determines the conduct. Establishment of rules refers to the principles/policies which are essential for reaching the expectations and are unavoidable. It regulates the behaviour by clearly defining the expectations of appropriate behaviour. It establishes the boundaries for behaviour by clearly communicating the desired behaviours to the students and identifies replacement behaviours for existing problems. It concerns with the acceptable behaviour specific to the classroom setting that are necessary to maintain order and a well-functioning environment. Classroom rules are crucial in teaching-learning process. These rules are always tailored around the general policies of the school. It serves as the defence against misbehaviour and helps to limit classroom hassles.

From the above discussed models of classroom management styles, it can be summarised that Wolfgang and Glickman presented “a continuum of teacher behaviour” in 1986 to explain teacher beliefs toward discipline, and suggested that teachers belong to non-interventionist, interactionist and interventionist classroom management approaches. In a classroom management model, Levin et al. (2005) gave three theories “student directed, collaborative, teacher directed” of classroom management which explained the management of student behaviour. The parenting typology created by Baumrind (1971) included three parenting styles i.e. “authoritarian, permissive and authoritative” which have been applied to the development of tools for measuring classroom management styles. In the latest literature, Chen (2008), Chang (2010), Munir and Rehman (2016) have used authoritarian, democratic, laissez-faire and indifferent styles, and Jones (2001), Dunbar (2004), Cadeau (2008), Skvarla (2008), Guangco (2008), Yilmaz (2009), Sadik and Sadik (2014), Hoots (2014), UNESCO (2015) have used authoritarian, authoritative, laissez-faire and indifferent styles of classroom management in different contexts. Hence, in the present study, the investigator has used four styles of classroom management i.e. “authoritarian, laissez-faire, democratic and indifferent” and for each style four dimensions i.e. “classroom discipline, classroom learning environment, teacher-student relationship and establishment of rules” has been conceptualised.

1.4 CREDIBILITY

According to Andersen and Clevenger (1963), “credibility is the image of the source in the minds of receivers”. “Aristotle referred to this image as the source’s ethos and suggested it as the source’s most potent means of persuasion” (Teven, 2008). The source of a message is significant in order to determine the credibility of that message. Ethos means “credibility which plays a key role in convincing the receivers in the communicative contexts” (Pishghadam, Makiabadi, & Mohtasham, 2018). Anderson (1971) defined source credibility as “a weight that can enhance the value of information in a message”. It has been defined as “the attitude toward a source of communication held at a given time by a communicator (McCroskey & Young, 1981)” or “the extent to which a source may be considered believable (McCroskey, 1998)”. Tormala and Petty (2004) explained source credibility as “a

message source's perceived ability or motivation to provide accurate and truthful information". It describes how an audience develops attitudes and perceptions about a speaker in the communication process, and what it may mean for message acceptance and trust (Alexander, 2011).

According to McCroskey and Young (1981), research has indicated source credibility as an important element in the persuasion or generation of understanding in the communication process. It is "one of the most powerful resources available to a speaker" (Cooper, 1932). It is known as "the judgments made by a message recipient concerning the believability of a communicator" (Callison, 2001). According to Umeogu (2012), "credibility refers to a person's perception of the truth of a piece of information". It refers to the ability, quality, or power of a source or message to be believable (Ramos, 2013).

1.4.1 MODELS OF SOURCE CREDIBILITY

Credibility is a multidimensional concept related to the various communication sources. The conceptualizations of credibility are discussed below.

1.4.1.1 ARISTOTLE'S RHETORIC

According to Aristotle (1960), "ethos is one of the three factors that enhance a person's ability to persuade the audience during communication" and he refers it to "the personal character of the speaker" which emphasizes speaker's credibility manifested in intelligence which refers to mental habits, character which refers to moral habits, and goodwill which refers to emotional habits. Wilson (2014) has also explained ethos as comprising:

- 1) Intelligence- knowledge of particular facts and knowledge derived from experience.
- 2) Character- voluntarily knowing what's right and using it in a way to help others.
- 3) Goodwill- building the foundation and allowing the relationship to grow and prosper.

1.4.1.2 SOURCE CREDIBILITY MODEL BY HOVLAND, JANIS AND KELLEY (1953)

Hovland et al. (1953) took the first step in understanding source credibility in the communication process and proposed “source credibility theory” which stated “people are more likely to be persuaded when the source presents itself as credible”. They identified expertness, trustworthiness and intention toward the receiver as the dimensions for the credibility construct. They explained credibility as a message source’s power of believability as perceived by the message receiver. Source credibility theory believes that teachers’ power of persuasion, and consequently, effectiveness is amplified when students view them as credible. This theory supports the idea that a teacher’s power of persuasion is increased when he or she is credible in the eyes of his students.

1.4.1.3 A REFRAMED MODEL OF ETHOS BY NIU AND YING (2016)

Niu and Ying (2016) presented a “concise hierarchical system of ethos”, and discussed the three key elements of ethos which were further comprised of three sub elements in each category. After analysing the various researches on ethos, they proposed “a reframed model of ethos” including Aristotle’s elements “good sense, good moral character and goodwill”. The model is shown in Figure 1.9.

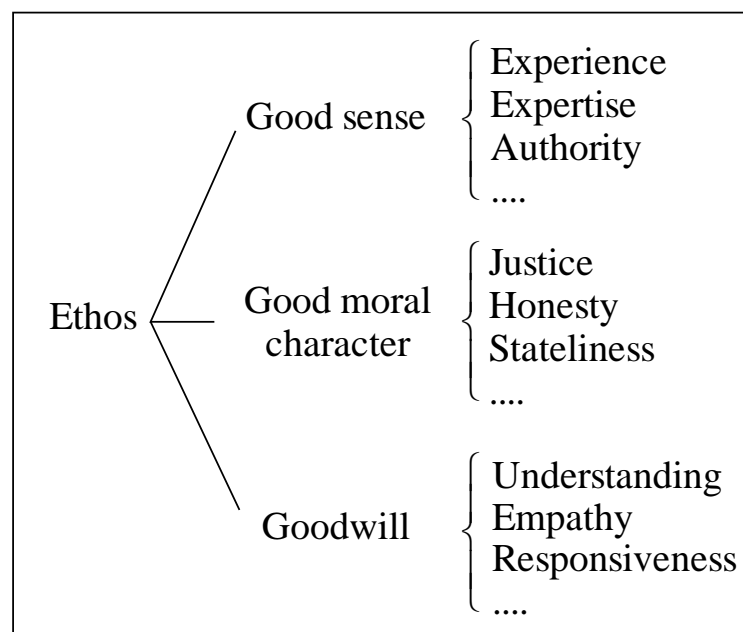


FIGURE 1.9: A REFRAMED MODEL OF ETHOS BY NIU AND YING (2016)

The first dimension of ethos is good sense which refers to having “experience, expertise, authority”; the second dimension of ethos is good moral character which refers to having the qualities of “justice, honesty, stateliness”; the third dimension of ethos is goodwill which refers to having the qualities of “understanding, empathy, and responsiveness”.

1.4.2 TEACHER CREDIBILITY

Credibility is a very important construct in classroom settings as it involves power-distant relationship (Boren & McPherson, 2009). “Teacher credibility is a critical teacher attribute in the instructional process and one of the most significant variables affecting teacher-student interaction and relationships (McCroskey, Valencic & Richmond, 2004; Myers & Martin, 2006)”. McCroskey (1998) defined it as the students’ perception about their teachers’ being believable, knowledgeable, trustworthy, and dynamic.

Teacher credibility “describes care, trust, and competence from the perspective of the teacher and the student” (Finn et al., 2009). According to Schrodtt et al. (2009), “credibility encompasses a teacher’s believability (care, trust, and competence) as perceived by students”. It is of concern that “a teacher’s credibility is defined by the perceptions of others and is viewed as one of the most important elements of teacher effectiveness” (Hurt, Scott, & McCroskey, 1977). Students’ perceptions defined a teacher’s credibility in a classroom, for example, “if a teacher is perceived as incompetent in the subject matter, then he is not seen as credible, despite the fact that his educational background is rooted in that particular subject” (Freeman, 2011).

McCroskey, Holdridge and Toomb (1974) established teacher credibility as the ability of the teacher to persuade the students in the course that he is a competent teacher. They defined it as “a composite of character, sociability, composure, extroversion, and competence”. According to McCroskey and Young (1981), “instructor credibility is the attitude toward a source of communication held at a given time by a communicator”. It is “the attitude of a receiver which references the degree to which a source is seen to be believable” (McCroskey, 1998). McCroskey and Teven (1999) defined teacher credibility as “the attitude of a student toward a

teacher's perceived believability". A teacher's credibility is paramount to ensuring students see the value the teacher has to offer (Brookfield, 1990). It is "vital perception students make regarding teacher behaviour that ultimately plays a supporting role in students learning" (Lisa, 2014).

1.4.3 MODELS OF TEACHER CREDIBILITY

The researchers have investigated credibility construct in educational domain, and refined its dimensions over the years, so that a conclusive scale for measuring teacher credibility can be prepared. Thus, to understand the concept of teacher credibility, models have been presented below:

1.4.3.1 MCCROSKEY ET AL. (1974)

In 1974, McCroskey et al. introduced the first tool to measure teacher credibility which was a 14-item scale comprising the five dimensions which are explained as follows:

- 1) Competence- It refers to being expert and reliable.
- 2) Character- It refers to being unselfish and kind.
- 3) Sociability- It refers to being sociable, cheerful and good natured.
- 4) Composure- It refers to being poised, relaxed and calm.
- 5) Extraversion- It refers to being aggressive, verbal, bold and talkative.

1.4.3.2 MCCROSKEY AND YOUNG (1981)

Further in the year 1981, McCroskey and Young gave two factors to measure teacher credibility, and they were competence and character.

1.4.3.3 MCCROSKEY (1992)

Next, McCroskey (1992) proposed caring (goodwill) "as another component of teacher credibility". Teacher caring further included the following three components:

- 1) Empathy- Empathy is accepting another person's view as valid (Teven & McCroskey, 1997).

- 2) Understanding- It refers to getting to know another person's feelings and ideas (Teven & McCroskey, 1997).
- 3) Responsiveness- It refers to acknowledging another person's communication quickly and attentively (Teven & McCroskey, 1997).

1.4.3.4 MCCROSKEY (1998)

According to McCroskey (1998), "teacher credibility has been measured by organizing teacher characteristics under a variety of themes", which are categorized as the following:

- 1) Competence- It refers to being expert on the subject matter.
- 2) Character- It refers to being honest and trustworthy.
- 3) Caring- It refers to being concerned for student welfare.

1.4.3.5 MCCROSKEY AND TEVEN (1999)

The present study has used the dimensions of teacher credibility as defined by McCroskey and Teven (1999). They put forward the most noted three-dimensional scale of teacher credibility. They identified three primary dimensions of credibility which consists of competence (i.e. level of knowledge or expertise), trustworthiness (i.e. perceptions of honour, character, or ethics), and perceived caring or goodwill (i.e. perceptions of caring, empathy, and responsiveness). The dimensions are explained as following:

- 1) Competence

It refers to one's extent of "qualification, expertness, intelligence, and authoritativeness" (McCroskey & Teven, 1999). This dimension means the extent to which a teacher is perceived as professional. According to Teven and McCroskey (1997), "competence is the perceived knowledge or expertise that a teacher applies in his/her classroom while teaching". "It refers to the degree that a teacher is perceived to be knowledgeable and competent in what s/he is teaching" (McCroskey, 1998). Competent teachers are good classroom managers. They handle the students' questions easily and effectively communication and explain the content to the students (Teven & Hanson, 2004). It is defined as the degree of expertness and knowledge (Richmond, McCroskey, & McCroskey, 2005).

2) Trustworthiness

According to McCroskey (1998), “it is accounted for the extent to which a teacher is perceived by his/her students as an honest one”. Trustworthiness refers to “the degree to which an audience perceives the assertions made by a communicator to be valid (Hovland et al., 1953)”. “A trustworthy teacher offers rational explanations for grading, treats students fairly, and gives immediate feedback” (Teven & Hanson, 2004). Hackman and Johnson (2013) included honesty and consistency for the concept of trustworthiness.

3) Perceived caring/Goodwill

“Perceived caring stands for the students’ perception of their teacher in terms of how much s/he recognizes their values, well-being, and interests, essentially, caring refers to the concept of goodwill or intent toward the receiver (McCroskey & Teven, 1999)”. Teven and McCroskey (1997) discussed goodwill “as the degree to which an audience perceives the source caring for them and having their best interests at heart”.

From the above discussion, it can be summarized that the research on credibility was started from the time of Aristotle (1960) who relates it with the personal character. Most importantly, Hovland et al. (1953) proposed “source credibility theory” and reported three dimensions of credibility. Further, Niu and Ying (2016) proposed “a reframed model of ethos” including three dimensions. Efforts were made to get the conclusive scale for measuring teacher credibility, which started in 1974 when McCroskey et al. introduced the first, a five dimensional tool to measure it. Further in the year 1981, McCroskey and Young gave two factors to measure teacher credibility. Next, McCroskey (1992) proposed caring “as another component of teacher credibility”. McCroskey and Teven (1999) put forward the most noted and widely used three-dimensional scale of teacher credibility which has been employed in this study.

1.5 INSTITUTIONAL SUPPORT

According to Shelton (2000), an educational community comprises both academic and social domains, the former is concerned with the formal education of

students and the later is concerned with the interactions outside the formal academic setting. Marx, Wooley and Northrup (1998) notably state that schools should adopt a comprehensive, coordinated approach to handle the academic and non-academic needs of students. Schools are recognized as critical places to support the social-emotional, behavioural, physical, and cognitive development of the children (Walsh, Galassi, Murphy, & Park-Taylor, 2002). UNESCO's (2002) document named "Manual for Developing, Implementing and Assessing Student Affairs Programmed and Services" has emphasized on the relevance of student support services. Savitz-Romer, Jager-Hyman and Coles (2009) have given recommendations for educators and policymakers by stating that students need individuals, resources, and strategies for their academic and social support. They further stress on the need to address students' academic, social, financial and developmental concerns to achieve rigorous academic standards. Academic and non-academic performances of students are the soul of educational institutions irrespective of caste, creed, and religion (Kalita, 2013). The importance of student support services is stated clearly in "Requirements for Oman's System of Quality Assurance (ROSQA) in Higher Education" as it says "institutions have responsibility for the provision of a range of support services adequate to ensure a safe, healthy and secure environment for students, and to contribute to their cultural, social, moral and physical development".

The policies and practices which enable students to persist in the institution are known as institutional support. It tends to provide all kinds of student services. Institutional support is the students' perception of the support given by faculty which students find helpful as well as adequate (O'Reilly-Knapp, 1994). Further, it comprises an efficient registration process, remedial courses, advising, institutional culture, counselling, learning-conducive facilities, approachable faculty, friendly support staff, and institutional leadership (VanWagoner, Bowman, & Spraggs, 2005). According to Scott (2008), institutional support identifies, assesses, and provides solutions for students' needs and diversity. The major aim of institutional support is to meet the needs of students as mentioned by many researchers. Institutional support cut across all demarcation lines within the institution, without effective institutional support structures applied to daily practice, student success is diminished (Kuh, Kinzie, Schuh, & Whitt, 2005). Walsh et al. (2014) recommends

that student support should address academic, social, emotional, health, and family domains, and both needs and strengths of students.

1.5.1 MODELS OF INSTITUTIONAL SUPPORT

Review of researches has revealed few models which are presented below to explain the concept of institutional support.

1.5.1.1 STRATEGIC-IMPACT-TRIAD [SIT] MODEL (SCOTT, 2008)

Scott (2008) designed the Strategic-Impact-Triad [SIT] Model in his study to address the three strategic factors i.e. academic preparation, work ethics and institutional support of institutional practice which impact student success. SIT model was based on the studies of Robbins et al. (2004), Kuh, Kinzie, Buckley, Bridges and Hayek (2006) and Smith (2005).

Among these three strategic factors, Scott (2008) explained institutional support by correlating it to the constructs of student success (Robbins et al., 2004) which included contextual influence (favourability of environment, and availability of supporting resources), general self concept (beliefs and perceptions about oneself), social involvement (involvement in campus activities), perceived social support (availability of the social networks) and institutional commitment (overall attachment to college). Scott (2008) has also explained institutional support by correlating it to the indicators of student success (Kuh et al., 2006) which included student goal attainment, course retention and success, success in subsequent coursework, student satisfaction, student involvement etc.

Further in his study, Scott (2008) concluded four functional areas of institutional support which are depicted in Figure 1.10.

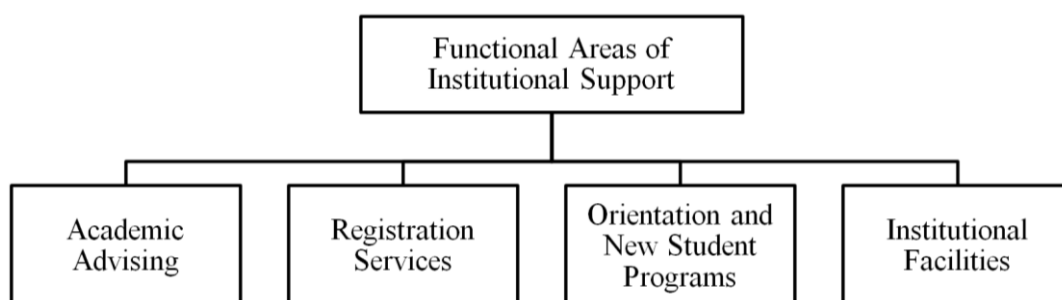


FIGURE 1.10: FOUR FUNCTIONAL AREAS OF INSTITUTIONAL SUPPORT

- 1) Academic advising- It is the function of institutional support which helps college students to succeed. It assisted students to set clear educational goals and develop academic plans (Dale & Drake, 2005).
- 2) Registration services- Institution provide these services to students as a matter of institutional practice to support their success. If students cannot register and access their information and records securely, persistence is suspect-leading to students who are disgruntled with their community college and are more apt to transfer or drop out.
- 3) Orientation and new student programs- Orientation is an institutional service provided to students as a matter of institutional practice to promote community college success. It is about informing the practices which improve student success.
- 4) Institutional facilities- It is the physical plant which includes all parts of the college or university as an institutional support system to support students, faculty, administration, and all other community stakeholders (Scott, 2008).

1.5.1.2 CATEGORIZATION OF INSTITUTIONAL SUPPORTS AND RESOURCES (MILMAN, POSEY, PINTZ, WRIGHT AND ZHOU, 2015)

Milman et al. (2015) categorized institutional support and resources provided to the students by university into four types of services. The first is administrative support services which comprised registrar, admissions office, financial aid, career counselling, counselling centre, bookstore, student organizations, veteran services, international services. The second is academic support services which comprised individual support from instructors, libraries, academic program advising, online academic orientation, writing centre. The third is technical support services which comprised instructions/help embedded in courses, tech support help line, online technology orientation, just-in-time online help, face-to-face technical orientation and the fourth is online community support services.

1.5.2 DIFFERENT DIMENSIONS OF INSTITUTIONAL SUPPORT

Institutional support has been viewed as “social support, emotional support, instrumental support, informational support, appraisal support, nondirective support, directive support” etc. Social support provided direct assistance, advice, feedback, caring, understanding, and/or diversion (Barrera, 1980) and comprised strategies which promoted “social networks, school connectedness, self-confidence, and academic motivation” (Savitz-Romer et al., 2009). According to Richman, Rosenfeld and Hardy (1993), social support included listening others being non-judgmental, and providing emotional comfort, emotional challenge and tangible assistance. House (1981) defined “emotional support as the provision of care, love, empathy and trust”, “instrumental support as the provision of helping behaviours as offering of financial support, time or skills”, “informational support as the provision of advice”, and “appraisal support as the provision of evaluative feedback”. Barrera and Ainlay (1983) explained nondirective support as the behaviours such as listening, caring, and understanding, and directive guidance as the guidance in offering advice on skills and abilities and offering feedback regarding behaviours, thoughts, and feelings, and positive social interaction.

The research literature (O'Reilly-Knapp, 1992; Richman, Rosenfeld, & Bowen, 1998; Shelton, 2000; Malecki & Demaray, 2003; Chen, 2005; Alfaro, Umana-Taylor, & Bamaca, 2006; Edwards, 2006; Mcgowen, 2007; Scott, 2008; Fezer, 2008; Suldo et al., 2009; Afshar, 2009; Owoeye & Yara, 2011; Timilehin, 2012; Junio-Sabio, 2012; Khurshid & Khan, 2012; Kalita, 2013; Federici & Skaalvik, 2014; Srivastava & Pant, 2015; Milman et al., 2015) have revealed some dimensions which can be related to institutional support. So, the investigator has classified institutional support into the three categories as per the support provided to students by the schools. In the present study, institutional support includes academic support which refers to academic advising and learning support provided to students, non-academic support which refers to informational support and care and encouragement provided to students, and institutional facilities which refers to learning environment, basic infrastructure and extended facilities provided to students which is shown in Figure 1.11.

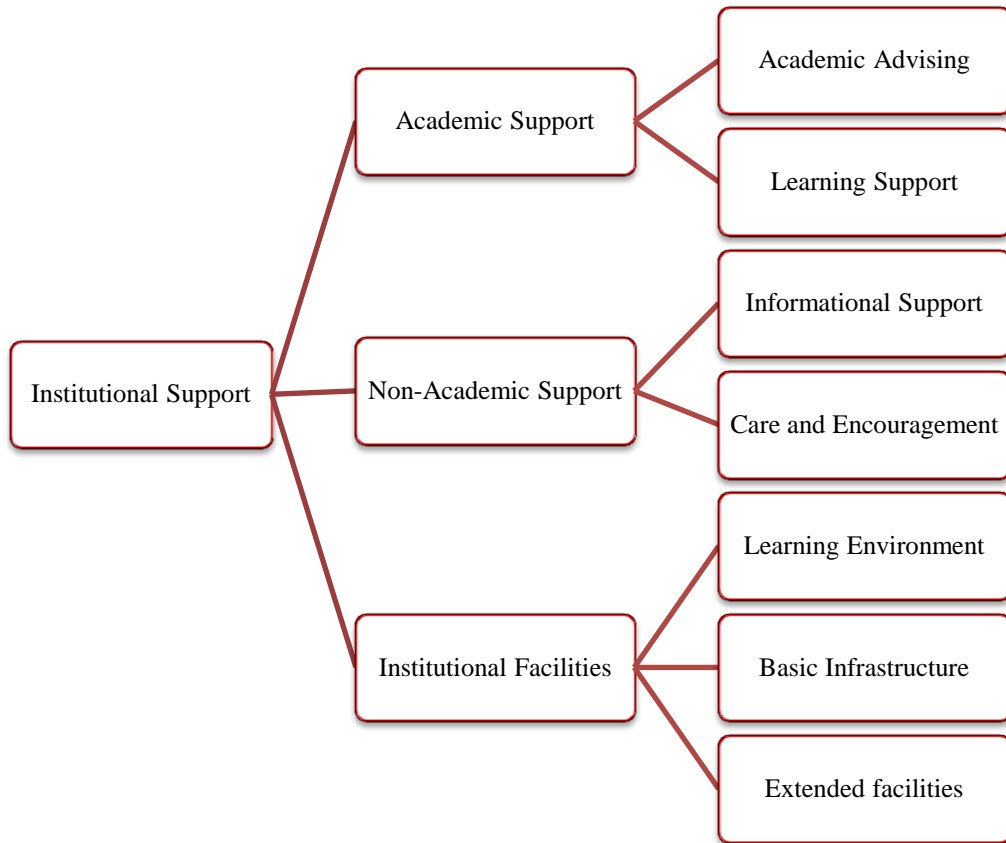


FIGURE 1.11: THEORETICAL MODEL OF INSTITUTIONAL SUPPORT

1) Academic Support

Academic support is the services and resources provided by the school to promote and facilitate academic learning of the students. It is a fundamental and inextricable component of an effective school that should be provided to each and every student. Academic support is “an array of direct and indirect provisions of resources to students that socializing agents provide to facilitate students academic achievement” (Chen, 2005) and comprises ‘strategies which “build, strengthen, and promote students’ mastery of subject matter and skill development” (Savitz-Romer et al., 2009). Chen (2005) further defined it as “a multidimensional construct that included emotional support (providing encouragement), instrumental support (assisting with the homework, supplying educational resources), and cognitive support (communicating the value of educational success)”. Savitz-Romer et al. (2009) in a paper “Removing Roadblocks to Rigor, Linking Academic and Social Supports to Ensure College Readiness and Success” written for the “Pathways to

College Network, Institute for Higher Education Policy” defined academic and social support as comprising intentional strategies (emotional, informational, instrumental, appraisal, and structural) that “enable students at all levels to benefit from academically rigorous curricula”. High-quality core curriculum, research-based academic interventions, assessment practices and behavioural interventions, collaboration and communication between educators and parents were the major components of the blueprint developed to cater students’ needs (Massachusetts Tiered System of Support, 2011).

2) Non-Academic Support

Non-Academic support is the services and resources provided by the school to promote and facilitate the non-cognitive development aspects of students. Such services and resources are not related to the academics directly. Non-Academic student support services committee submission (Memorial University of Newfoundland, 2011) provided counselling to enrich learning tasks, student engagement for the wellness and recreation, volunteering and leadership programs, support to students with disabilities, visible minorities, financial support through student aid and scholarships, orientation, safe environment, career support services, housing programming facilities, health services, physical activities as the non-academic student support services. Karp (2011a, 2011b) differentiated non-academic support from the academic support by stating that the former was meant to encourage academic success of students through four central mechanisms which were identified by Karp and Stacey (2013) namely creating social relationships between students, and their professors and classmates meaningfully, clarifying aspirations for developing goals and enhancing commitment to achieve target goals, developing college know-how to learn about different demands of the college and making college life feasible to meet students’ needs. Karp and Stacey (2013) defined non-academic student supports as those activities and programs which encouraged academic success without dealing directly with academic content, and comprise academic, career, and financial aid advising.

3) Institutional Facilities

Institutional facilities include the whole physical plant of the school which is provided for the fruitful learning of students. Scott (2008) defined institutional

facilities as the physical plant which included all parts of the school as an institutional support system to support students, faculty, administration, and all other community stakeholders. Kalita (2013) explained facilities as buildings or services that were provided for a particular purpose and were the “set of interconnected structural elements that provided framework supporting an entire structure of development”. He defined the term institutional facilities as the different school facilities and infrastructural facilities made for students of secondary schools. He added “institutional facilities are to the school, as the body to the soul and are declared as a potent factor to quantitative as well as qualitative education”. Khurshid and Khan (2012) stated that school facilities can improve the maximum productivity in the teaching-learning process and affect teachers’ abilities and student’s learning to perceive knowledge and skills successfully.

From the above discussion, it can be summarised that Scott (2008) designed the Strategic-Impact-Triad [SIT] Model, in which he explained institutional support comprising four dimensions i.e. “academic advising, registration services, orientation and new student programs, and institutional facilities”. Further, Milman et al. (2015) categorized institutional support and resources into four types i.e. “administrative, academic, technical and online community support services”. Institutional support has been viewed as social support (Barrera, 1980; Richman et al., 1993; Savitz-Romer et al., 2009). It has been also studied as “emotional, instrumental, informational and appraisal support” (House, 1981), and “nondirective support, directive guidance” (Barrera & Ainlay, 1983). After reviewing the research literature (O’Reilly-Knapp, 1992; Richman et al., 1998; Shelton, 2000; Malecki & Demaray, 2003; Chen, 2005; Alfaro et al., 2006; Fezer, 2008; Scott, 2008; Suldo et al., 2009; Afshar, 2009; Junio-Sabio, 2012; Federici & Skaalvik, 2014; Srivastava & Pant, 2015; Milman et al., 2015) which is related to academic and non-academic support and the research studies (Edwards, 2006; McGowen, 2007; Scott, 2008; Owoye & Yara, 2011; Timilehin, 2012; Khurshid & Khan, 2012; Kalita, 2013) which are related to institutional facilities, the investigator has conceptualised institutional support comprising three types of support i.e. academic support, non-academic support and institutional facilities.

CHAPTER – II

REVIEW OF RELATED LITERATURE

The purpose of reviewing the related literature is to understand and discuss the existing ideas established by different researchers on the concerned topic. It provides guidelines and information for interpreting the results. In the present study, investigator has used different articles, thesis, books and websites for reviewing the related literature. Detailed information about the related literature pertaining to the different variables has been presented below.

2.1 STUDIES PERTAINING TO ACHIEVEMENT MOTIVATION

Many studies related to the achievement motivation of students have been found and discussed from the review of literature, where the relationship of achievement motivation with other variables, influence of other variables on achievement motivation, contribution of achievement motivation on other variables etc. have been studied.

The research studies presented below are related to the achievement motivation, and other variables i.e. environment-based education, academic stress, study habits, academic success, vocational aspiration, academic engagement, self concept, academic achievement, e-learning, academic anxiety, learning outcome, academic performance, learning experience etc. Some demographic variables i.e. class, gender, school board, age, locality, mother and father's education level, and income status, subject, type of school, medium of instruction and their relationship with achievement motivation has been found and discussed below.

Athman and Monroe (2004) constructed Achievement Motivation Inventory based on Pintrich and Schrauben's (1992) general social cognitive model addressing four components namely self-efficacy, control, task orientation and task value. Their sample comprised 400 students in total which were taken from 9th and 12th classes of eleven high schools of Florida. The reliability coefficient values of the post test of the inventory were 0.79 and 0.76 for 9th and 12th grade students respectively. Their findings supported that environment-based education should be used to improve students' achievement motivation. In a study conducted by Tabassum (2009), the

sample was taken from Meerut district which included 200 students of higher secondary stage. The students were taken from U.P. board and CBSE board by random sampling technique. She noted that increased academic stress lead to poor achievement motivation. She reported that students of CBSE board had low achievement motivation than students of U.P. Board because the former had more academic stress. Further, she reported that the girls of U.P. and CBSE board were found to be having low achievement motivation than the boys of U.P. and CBSE board respectively as the formers had more academic stress. She also reported that achievement motivation was having good relations with study habits among higher secondary students which meant that increase of study habits lead to the increase of achievement motivation, and poor study habits of students lead to poor achievement motivation. In this concern, she also found that CBSE board students had more achievement motivation than U.P. board students because they have good study habits. Further, it was found that U.P. board girls had slightly higher achievement motivation and good study habits than boys, and CBSE board girls had higher achievement motivation and good study habits than boys.

Kishor and Rana (2010) studied students' achievement motivation and their sample included 200 students of which half of the sample was taken from rural area and half from the urban area. Students were selected through purposive sampling technique from three government schools of Mandi district. Their findings showed that students from rural and urban area were found as having difference in their achievement motivation. Similar findings were reported for boys from rural area and boys from urban area, rural girls and urban girls, and rural girls and urban boys. They further found that rural boys and urban girls were found as having no difference in their level of achievement motivation. In 2011, Aydm and Coskun investigated the achievement motivation of 151 high school students of Karabuk towards geography lessons. They employed Achievement Motive Scale (Ellez, 2004) comprising 23 items which measured the dimensions such as strive, participation, willingness to work and maintaining the working. They reported KMO coefficient value as 0.81 and cronbach alpha was found to be as 0.70. They found that students of 9th, 10th and 11th classes differed in their achievement motivation. They also concluded that students' achievement motivation was not found to be

differed on the basis of their gender, mother and father's education level, and income status.

Ergene (2011) utilised Kuzgun's (1988) Self Evaluation Inventory [SEI] which comprised eighteen statements related with the attitudes and behaviours which reflected students' achievement motivation. The total sample was 510 students of 10th class from high schools at Turkey. Using test-retest method, the reported reliability value was found to be as 0.83 (Erkan, 1991). He reported the cronbach's value as 0.91, and found that the students' study habits and achievement motivation were positively related with each other. Further, academic success and achievement motivation were not found to be related with each other. Tali and Rosy (2012) assessed the vocational aspirations of 200 students of 10+2 class of three government and three private schools of Haryana in relation to their achievement motivation. They found that students with high and low achievement motivation did not differ in their vocational aspiration.

Shekhar and Devi (2012) had taken 80 undergraduate students of Jammu as sample for their study. They found that students studying the subjects of science and arts had difference in their achievement motivation. Similar difference was reported for boys and girls. Payyanatt and Manichander (2012) examined the achievement motivation of 200 secondary school students of Kerala which were selected by purposive sampling technique. They found that students from rural and urban had difference in their achievement motivation. Similar findings were reported for boys from rural area and boys from urban area, rural girls and urban girls, and rural girls and urban boys. They added that rural boys and urban girls had similar level of achievement motivation.

Akpan and Umobong (2013) selected a sample of 540 senior secondary students of Nigeria within the age group of 12 to 22 years. They constructed "Achievement Motivation and Academic Engagement Questionnaire" by validating it through face validity and also reported the values of coefficient reliability as 0.87 (achievement motivation) and 0.81 (academic engagement). They found that achievement motivation contributed significantly to academic engagement. They found that gender and age were having significant influence on achievement

motivation. They concluded that boys, and students having age between 18 years and above were found as more motivated than girls, and students between 12 to 17 years of age. Emmanuel, Adom, Josephine and Solomon's (2014) sample was 120 in total which comprised students of high school. They utilised and selected 12 items from the Inventory of School Motivation (McInerney & Sinclair, 1991). They concluded that students were found to be highly motivated and were having high self-concept and scored well by performing well in achievement test. They found that achievement motivation and academic achievement were positively related with each other.

In their study, Vijayakumari and Rekha (2014) have taken the sample of 525 secondary school students from Kerala. They used Achievement Motivation Scale (Pillai & Kumar, 1994) comprising seven components named as work ethics, status aspiration, competitiveness, acquisitiveness, pursuit of excellence, mastery, and dominance. They indicated that boys and girls were found to be having no difference in their achievement motivation level. Similar findings were reported for the students for urban and rural, and among students of government, aided and unaided schools. They concluded that gender, locality and management were not found to be directly and significantly influencing the achievement motivation but these variables interacted together to influence achievement motivation. Wani and Masih (2015) examined 200 students of higher secondary classes of government and private schools of Jammu and Kashmir. They reported that 46.5% students were having average level of achievement motivation. They concluded that girls and government students reported better achievement motivation than boys and private school students respectively. Students from different academic streams i.e. science, arts and commerce had significant differences in their achievement motivation.

Kumari and Qasim (2015) took the sample from schools of Allahabad city which comprised 200 secondary students. They reported that the achievement motivation was important for the academic achievement. They concluded that private schools' students were found to be having more achievement motivation than the students of government schools. Boys were also reported as having more achievement motivation than girls. Kumar and Bajpai (2015) found that e-learning impacted the achievement motivation and academic performance of 110 college

students positively. Pan and Guha (2015) measured the achievement motivation of 10th class students of English medium schools in relation with self-concept. They reported that male students and students from urban areas were found to be having better achievement motivation than female students and rural students. Further, it was found that achievement motivation and self concept were significantly correlated with each other.

Chauhan (2016) examined achievement motivation and academic anxiety problems of students of Bhavnagar district studying in 9th to 12th classes. A sample of 480 students of which 240 were boys and 240 were girls was selected randomly. He found that boys had higher achievement motivation than girls. Similar findings were reported for urban and private school's students as they were also found to be having higher achievement motivation than rural and government school's students respectively. Further, he noted that academic anxiety and achievement motivation have no correlation in boys, girls, rural students, private school's students, government school's students. He also added that urban students' academic anxiety and achievement motivation were correlated. Solanki (2017) selected the sample by random sampling of which 240 were boys and 240 were girls of high and senior secondary schools of Rajkot district, and compared their achievement motivation and study habits. He concluded that boys, urban and private school's students were found to be having higher achievement motivation than girls, rural and government school's students respectively.

Jeffrey and Zein (2017) developed a 14-items questionnaire comprising four dimensions namely willing to take moderate risks, requiring immediate feedback, considering success and integrating with task to measure the achievement motivation of students. They reported that achievement motivation would improve learning outcome. Shekhar and Choudhary (2017) conducted a study on 100 secondary students which were selected from Jammu. The sample comprised 50 boys and girls each within the age group of 16-18 years. They found that female students, science students and students from urban area had more achievement motivation than male, arts and rural students. In Qadri's (2017) study, the sample selected by random sampling method comprised 238 boys and 262 girls of the various schools from Hyderabad district. He adopted 53 items to measure students'

achievement motivation from the various tools named as Achievement Motivation Inventory, Achievement Motivation Scale, Achievement Motivation Test, and Achievement Motive Test which were developed by Muthee and Thomas (2009), Deo-Mohan (1985), Mukherjee (1965) and Bhargava (1994) respectively. The tool comprised total nine dimensions i.e. hope of success, fear of failure, high standard, sense of competition, optimism, perseverance of interest in making future plans, preference for challenging and difficult task, identification with successful authority and leadership qualities. He reported cronbach's alpha value of this tool as 0.8086 with a sample size of 50 and established the validity of the tool by taking the square root of reliability which came out as 0.8992. He found that boys and girls differed in achievement motivation. Similar difference was found on the basis of medium of instructions among secondary school students. Mishra (2017) conducted a study to assess achievement motivation of students of Murshidabad district of West Bengal. The sample was taken from 10th class and consisted of 200 secondary school students selected by stratified random sampling. He found that students studying in rural and urban locale differed in their achievement motivation.

Kumari (2019) found that achievement motivation of 11th class students was positively related with their academic performance, and urban area, private and female students were having more achievement motivation than rural area, government and male students respectively. Rani and Reddy (2019) found that female students had more achievement motivation than male students in government colleges of Hyderabad. Anwar and Wardhono (2019) concluded that learning experience and achievement motivation of university students were not related with each other. Santhi and Suthanthiradevi (2019) found that achievement motivation of government secondary students was related with their academic performance.

In above discussed studies, Kishor and Rana (2010), Payyanatt and Manichander (2012), Tali and Rosy (2012), Shekhar and Devi (2012), Wani and Masih (2015), and Shekhar and Choudhary (2017) employed Deo-Mohan's (1985) Achievement Motivation Scale. The reliability of the scale was established by employing test-retest method which reported the values of the coefficient of the scale as 0.67, 0.78 and 0.69 for boys, girls and both respectively. The scale was validated by using concurrent method (Deo-Mohan, 1985). Mishra (2017), Pan and

Guha (2015) and Kumar and Bajpai (2015) employed Achievement Motive Test (Bhargava, 1994) consisting of 50 questions. The test-retest reliability was found to be 0.87. Solanki (2017) and Chauhan (2016) employed Achievement Motivation Inventory (Jansari, 2006) comprising 25 items. Jansari (2006) used test-retest and split half methods for testing the reliability of this inventory and the values of coefficient of correlation obtained were found to be as 0.6301 and 0.7245 respectively.

In the present research, achievement motivation has been studied as a dependent variable, so, the research studies presented here are related to the first independent variable of the present study i.e. classroom management styles and the dependent variable i.e. achievement motivation. The present study has employed “authoritarian, laissez-faire, democratic and indifferent classroom management styles”, and four dimensions i.e. “classroom discipline, classroom learning environment, teacher-student relationship and establishment of rules” for each style has been framed. As, there is a scarcity of literature related to classroom management styles and achievement motivation, the studies related to achievement motivation, and instructor enthusiasm, methods of teaching, teachers classroom management, teaching approaches, teaching style, interactive style and interventionist classroom management style, proper learning environment, relationships with teachers, classroom climate, teacher goals and behaviours are discussed below.

Hotaman and Yüksel-Şahin (2010) examined the effect of instructor’s enthusiasm on achievement motivation of 334 undergraduate and graduate university students. They used Achievement Motivation Scale (Umay, 2002) and found the reliability coefficient of the scale as 0.75. They stated that teachers created positive atmosphere in classroom which helped students to trust their teachers. They found that students who perceived their instructor’s enthusiasm as high had higher level of achievement motivation. Female students were found having significantly higher achievement motivation level than male students. Billing (2013) concluded that inductive method of teaching focused on employing child centred techniques and strategies and it contributed for the wholesome development of the child. This method was found as contributing more towards the achievement motivation of students than traditional method of teaching.

Tenaw (2013) examined the relationship of students' attitude and achievement with teacher's classroom management. Their sample comprised 50 students and 5 teachers of junior primary schools of Ethiopia. He constructed "Teacher Management Behaviour Observation Schedule [TMBOS]", "Chemistry Achievement Test [CAT]" and "Chemistry Attitude Questionnaire [CAQ]". He reported the inter-raters reliability coefficient of TMBOS as 0.66, test-retest reliability coefficient of CAT as 0.72 and cronbach alpha reliability coefficient for CAQ as 0.68. CAQ included statements related to "likeness for chemistry, emotional climate of the chemistry classroom, chemistry curriculum, chemistry teacher, physical environment of the chemistry classroom/laboratory, friends attitude towards chemistry, achievement motivation, anxiety, and chemistry self-concept". He found that teacher management behaviours and students attitude toward chemistry were not related.

In their study, Aldhafri and Alrajhi (2014) constructed "Students' Perceptions of Teaching Style Scale [SPTSS]" which was based on the "Arabic version of the Parenting Authority Questionnaire (Buri, 1991)" to study the predictive role of authoritative and authoritarian teaching style on 425 Omani students' mathematics motivation. Their sample comprised 202 male and 223 female students of 8th grade with an average age of 13 years. They found values of cronbach's alpha for the authoritative and authoritarian subscale as 0.73 and 0.58 respectively and reported that authoritative and authoritarian subscale accounted for 13.28% and 7.56% of the variance respectively. They revealed that authoritative teaching style was the better predictor of motivational constructs than authoritarian style, and gender did not make any impact on teaching styles. Smitha and Aruna (2014) investigated the effectiveness of science technology society approach over activity oriented method of teaching on achievement motivation. Their sample included 90 students of biology subject, taken from the secondary schools of Kerala. They found that science technology society approach was more effective than activity oriented method in bringing achievement motivation among secondary school students. They suggested that teachers had the responsibility to motivate students and promote their fruitful learning by adopting strategies. Pudelko and

Boon (2014) noted that teachers are identified as important influences upon students' achievement motivation at schools.

Asgari, Nastiezaie and Poorgaz (2016) collected data from 323 graduate university students of Iran. They utilised Class Management Styles Questionnaire (Martin et al., 1998) and Achievement Motivation Scale (Hermans, 1970). It was concluded that the interactive style of classroom management enhanced students' achievement motivation and self-directed learning, whereas interventionist style reduced both the outcomes. Elshemy (2017) conducted the study on 68 students of 11 to 15 years of age studying in Muscat Governorate. He stated that provision of fun, challenging atmosphere and availability of proper learning environment helped in motivating students and continued positive reinforcement increased achievement motivation of the students. Chouinard, Roy, Archambault and Smith (2017) studied the link of 323 French-speaking students' achievement motivation and their relationships with teachers. They prepared a questionnaire which firstly measured students' appreciation of their relationships with teachers and secondly their achievement goals. They concluded that the students who had improved relationships with teachers had lower motivational decrease and their transitions to secondary school were facilitated.

Sutha and Shirlin (2017) had taken the sample from higher secondary schools and included 420 students as the sample. They found that positive classroom climate influenced the achievement motivation of students. They concluded that students from urban and rural locality had similar achievement motivation, and students differed in their achievement motivation with respect to the gender and medium of instruction. Further, they added that students were not found to be having difference in their achievement motivation with respect to mother's occupation but they differed in their achievement motivation with respect to the religion and father's occupation. Barni, Russo and Danioni (2018) stated that teachers' goals and behaviours are primary influences on students' achievement motivation and learning.

Some research studies are related to the second independent variable of the present study i.e. credibility of school teachers and the dependent variable i.e.

achievement motivation. From the review of literature, very few studies focusing on credibility and achievement motivation have been found. Most of the studies are concerned with credibility and motivation which are presented below.

Frymier and Thompson (1992) took a sample of 250 undergraduate students of which 131 were males and 113 were females, while 6 were unidentified. They used 12-item Source Credibility Scale (McCroskey & Young, 1981) comprising two dimensions, and reported alpha reliability estimates as 0.83 and 0.84 for competence and character respectively. They found that several affinity-seeking strategies, and teacher competence and character were having good relation and indicated that the use of affinity-seeking strategies can help in the development of teacher credibility in the classroom. They also concluded the association between affinity-seeking techniques and teacher credibility, and students' motivation to learn as positive and significant.

In the study of Teven and McCroskey (1997), the sample consisted of 235 university students. They employed a "22-item bipolar scale" of which 12 items measuring "competence and trustworthiness (McCroskey & Young, 1981)" were included and the remaining 10 items were formed to measure perceived caring. They reported good face validity for the scale and alpha reliability was found to be 0.95 in this study and the inter correlations among the factors were 0.60 for competence/caring, 0.63 for trustworthiness/caring, and 0.60 for competence/trustworthiness. The reported alpha reliabilities were 0.86, 0.86, and 0.95 for competence, character, and caring respectively. They found that teacher credibility, and affective and cognitive learning of students were related. They concluded that instructor credibility enhanced students' motivation, and affective and cognitive learning.

Pogue and Ahyun (2006) collected sample from 586 students and reported that teachers' high immediacy and high credibility contributes more to the students' motivation and affective learning as compared to their low immediacy and low credibility. They argued that credible teachers not only influenced the cognitive learning of students but they also made influence on students' creation of understanding. Zhang (2009) tested a credibility-learning model in the classrooms of

U.S, China, German and Japan. He found that teacher credibility was indirectly related to the cognitive learning of the students which was mediated by affective learning and motivation. He concluded that competence and caring dimensions of teacher credibility was positively related to affective learning of students which further was related to their motivation, and motivation was associated with cognitive learning. Omar, Ahmad, Hassan and Roslan (2017) employed Achievement Motivation Scale by Vallerand et al. (1992) which consisted of 28 items for measuring intrinsic and extrinsic motivation, and amotivation. The total sample was 360 taken from 13 vocational colleges in Malaysia and students' age was 16-18 years. They concluded that the relationship between students' performance and teachers' competence were affected by achievement motivation as it worked as a mediator.

Pishghadam et al. (2018) employed convenience sampling technique and their sample comprised 228 undergraduate students of Iran of which 71 were male students and 147 were female students. They used Teacher Credibility Scale (McCroskey & Teven, 1999) translated by Pishghadam, Seyednozadi and Zabetipour (2017) and reported the cronbach's alpha reliability as 0.86. They reported that teacher credibility was a very important factor to impact the relationships between teachers and students, and also to affect the students' motivation and learning. They concluded that a strong bond with students and consideration to their feelings made an influence on students' perceptions of teacher credibility.

The research studies discussed here are related to the third independent variable of the present study i.e. institutional support which comprises academic support, non-academic support and institutional facilities, and the dependent variable i.e. achievement motivation. The studies found from the review are related to school facilities, physical learning environment, school environment, teachers' emotional and instrumental support, social support, school climate, school environment, physical facilities, classroom environment, and achievement motivation and motivation.

Edwards (2006) stated “effective schools maintain safe and orderly physical learning environments which boost the morale and motivation of both teachers and students, and schools must be the institutions where teachers want to teach and learners want to learn”. In his qualitative study, he designed a survey tool named School Facilities and Student Achievement comprising 14 items related to physical learning environment. He revealed that condition of the facility made an impact on the personal conduct, academic achievement and motivation of students. He suggested that adequate facility conditions and good teachers meet the academic needs of learners in a better way. Billing (2013) recommended in his study that active responses of students, flexibility in the schedules of the school, child directed classrooms and problem solving techniques should be emphasized for developing the achievement motivation of students. In a longitudinal study, Wang and Eccles (2013) utilised the measures developed by Eccles et al. (1993) for the assessment of 1157 middle school students’ perceptions of achievement motivation. The motivational beliefs of students were represented by developing two constructs namely academic self-concept which comprised five questions to assess the abilities of students as per their perceptions and subjective task valuing of school learning which consisted of three questions to assess the intrinsic interest of students in academic achievement and the attainment of its value. They found that student perceptions about the structure, teacher and peer emotional support, and provision of choice, relevant teaching of the school environment influenced their achievement motivation.

Federici and Skaalvik (2014) prepared an instrument comprising two scales to measure 9th and 10th grade students’ perceptions of their teachers’ emotional and instrumental support. The reported values of cronbach alpha were 0.94 and 0.95 for emotional and instrumental support scale respectively. Further, they conducted confirmatory factor analysis and the reported values of multiple indexes were 2.911, 0.079, 0.971, 0.959, and 0.971 for CMIN/DF, RMSEA, IFI, TLI, and CFI respectively. They found that instrumental support was strongly related to motivational constructs, and predicted lower levels of anxiety. Srivastava and Pant (2015) examined social support and achievement motivation of 11th-12th class students. They employed purposive sampling technique and their sample included

50 boys and 50 girls within 14-17 years of age. They used Social Support Questionnaire (Nehra, Kulhara, & Verma, 1998) and Achievement Motivation Scale (Misra & Srivastava, 1990). They reported that social support and achievement motivation was found higher in females than males. Arefi and Ghobadi (2016) used Achievement Motivation Scale (Institute of Behavioural Science, 1990) and reported the value of cronbach alpha as 0.77. A sample of 197 female students from public and selective high schools of Urmia City was selected by random sampling method. They found that school climate did not influenced achievement motivation but concluded that self-regulation influenced the achievement motivation of students. Rao and Reddy (2016) examined the impact of school environment, home environment and mental health on achievement motivation, and their sample included 600 students of Andhra Pradesh. They employed Achievement Motivation Scale (Shah, 1986). They concluded that students with good school environment, good home environment and good mental health were better in their achievement motivation than the students with poor school environment, poor home environment and poor mental health status.

Akomolafe and Adesua (2016) investigated physical facilities, motivation and performance of 1050 students of South West Nigeria. They designed a questionnaire named “Motivation and Academic Performance of Senior Secondary School Students [MAPSSS]” and reported the coefficient value of test-retest reliability as 0.85. They found that physical facilities, and academic performance and level of motivation were related with each other. They stated that high quality human and non-human resources can motivate students for learning. According to Ranka (2016), student experiences within the classroom helped to develop their behavioural, social, and academic skills. He examined the effect of classroom environment on the academic achievement motivation of 30 female secondary students whose average age was 15 years. He employed Academic Achievement Motivation Test (Sharma, 1984). The reported reliability of split-half test was 0.53 and for the whole test, it was 0.697 and the reliability using test-retest method was found as 0.795 for boys and 0.80 for girls (Sharma, 1984). He also used Classroom Environment Scale (Joshi & Vyas, 1987) and reported the values of test-retest reliability as 0.803, 0.792, 0.831, 0.842, 0.863, 0.801, 0.830, 0.799 and 0.840 for

“involvement, affiliation, teacher support, task orientation, competition, order and organization, rule clarity, teacher control and innovation” subscales respectively. He found no significant relationship of classroom environment with academic achievement motivation except the one dimension of classroom environment i.e. rule clarity which was found as having negative relationship with academic achievement motivation.

SUMMARY OF REVIEWS ON ACHIEVEMENT MOTIVATION

From the previous research studies conducted on achievement motivation, Tabassum (2009) revealed that increased academic stress and poor study habits lead to poor achievement motivation, and increased study habits lead to the increase of achievement motivation. Kishor and Rana (2010), Payyanatt and Manichander (2012) and Mishra (2017) revealed that students studying in rural and urban locale had differences in their achievement motivation. Aydm and Coskun (2011) found that students of 9th, 10th and 11th classes differed in their achievement motivation. Ergene (2011) found that study habits and achievement motivation were positively related with each other, and further, academic success and achievement motivation were not found to be related with each other. Tali and Rosy (2012) reported that students with high and low achievement motivation did not differ in their vocational aspiration. Students studying the subjects of science and arts, and male and female students had difference in their achievement motivation (Shekhar & Devi, 2012). Akpan and Umobong (2013) found that achievement motivation contributed significantly to academic engagement and they reported that gender and age were having significant influence on achievement motivation. Emmanuel et al. (2014) also found that achievement motivation had good correlation with academic achievement. Vijayakumari and Rekha (2014) concluded that gender, locality and management were not found to be directly and significantly influencing the achievement motivation. Wani and Masih (2015) concluded that girls and government school students had better achievement motivation as compared to boys and private students and students from different academic streams i.e. science, arts and commerce had significant differences in their achievement motivation. Kumari and Qasim (2015) found achievement motivation important for the academic achievement of secondary students and students of private schools and boys reported

more achievement motivation than the students of government schools and girls. Environment-based education (Athman & Monroe, 2004) and e-learning (Kumar & Bajpai, 2015) impacted the achievement motivation of students positively. According to Pan and Guha (2015), achievement motivation was correlated with self concept, and males and students from urban areas were found to be having better achievement motivation than females and rural students. Chauhan (2016) noted that academic anxiety and achievement motivation had no correlation in boys, girls, rural students, private school's students, government school's students. Solanki (2017) found boys, urban and private school's students having higher achievement motivation than girls, rural and government school's students. Jeffrey and Zein (2017) found positive effect of achievement motivation on students' learning outcomes. Shekhar and Choudhary (2017) found that females, science students and students from urban area were found as having higher achievement motivation as compared with males, arts students and rural students. Qadri's (2017) found significant differences on the basis of gender and medium of instructions in the achievement motivation of students. It is found that achievement motivation was related with academic performance (Kumari, 2019; Santhi & Suthanthiradevi, 2019).

There was a scarcity of literature related to classroom management styles and achievement motivation of students, so, it was found from the review of literature that instructor's high enthusiasm (Hotaman & Yüksel-Şahin, 2010), inductive method of teaching (Billing, 2013), science technology society approach (Smitha & Aruna, 2014), interactive style of classroom management (Asgari et al., 2016), proper learning environment and continued positive reinforcement (Elshehy, 2017), good relationships with teachers (Chouinard et al., 2017), positive classroom climate (Sutha & Shirlin, 2017) and teachers' goals and behaviours (Barni et al., 2018) enhanced the achievement motivation of students. Aldhafri and Alrajhi (2014) found that authoritative teaching style was the better predictor of motivational constructs than authoritarian style. Moreover, teachers were identified as important influences upon students' achievement motivation at schools (Pudelko & Boon, 2014). From the review of literature, the studies focusing on credibility and achievement motivation revealed that teacher credibility was positively related with students' motivation to learn (Frymier & Thompson, 1992; Zhang, 2009) and

enhanced students' motivation (Teven & McCroskey, 1997; Pogue & Ahyun, 2006). Omar et al. (2017) concluded that the relationship between students' performance and teachers' competence was affected by achievement motivation as it worked as a mediator. Pishghadam et al. (2018) reported that teacher credibility was a very important factor to impact the relationships between teachers and students, and also to affect the students' motivation and learning. The studies focusing on institutional support which comprised academic support, non-academic support and institutional facilities in the present study and achievement motivation revealed that condition of the facility made an impact on the motivation of students (Edwards, 2006), physical facilities and level of motivation were related with each other (Akomolafe & Adesua, 2016), teacher and peer emotional support of the school environment influenced achievement motivation (Wang & Eccles, 2013), instrumental support was strongly related to motivational constructs (Federici & Skaalvik, 2014), students with good school environment were better in their achievement motivation (Rao & Reddy, 2016). Billing (2013) recommended in his study that active responses of students, flexibility in the schedules of the school, child directed classrooms and problem solving techniques should be emphasized for developing the achievement motivation of students. Srivastava and Pant (2015) found that social support and achievement motivation was higher in females as compared to males. Arefi and Ghobadi (2016) found that self-regulation influenced the achievement motivation of students. Ranka (2016) found no significant relationship of classroom environment with academic achievement motivation except the one dimension of classroom environment i.e. rule clarity which was found as having negative relationship with academic achievement motivation.

2.2 STUDIES PERTAINING TO LEADERSHIP DEVELOPMENT

Different researches conducted focusing on leadership development has been reviewed and are presented below.

McKinley, Birkenholz and Stewart (1993) employed a questionnaire by Schumacher (1990) to assess the self perceived leadership abilities of 428 junior and senior agriculture students of University of Missouri-Columbia. The values of coefficient alpha for the dimensions of questionnaire were 0.84, 0.82, 0.79 and 0.86

for “interpersonal relations, administration, management of self, and communications” respectively. The overall reported value of coefficient alpha was 0.937, and factor loadings were 0.39 to 0.73. They found that students perceived interpersonal relations and management of self as the stronger leadership skills than administration and communications. They concluded that students who were older, female, raised on farms, or participated in a foreign language club perceived themselves to have better interpersonal relations skills and students who worked more hours per week or participated in student council, or livestock associations perceived themselves to have better administration skills. Participation in student organizations and activities enhanced the communications skills of students.

Gordon (1994) conducted a study to assess the characteristics, experiences, and activities related to the perceived leadership abilities of 170 college students at Marshall University in Huntington, West Virginia. He employed a questionnaire which was a revised version of the instruments by Luft (1986), and McKinley, Birkenholz and Stewart (1992) comprising the dimensions i.e. motivate others, inspirational, decision making, supervisory skills, management of self, adaptable, counselling skills, innovative, interpersonal relations and communications. The reported value of cronbach’s alpha of whole instrument was 0.92. Factor loadings from principal component factor analysis ranged from 0.54 to 0.79. He concluded that students felt that they possessed high levels of leadership abilities especially in the management of self and interpersonal relations categories and gender had a significant influence on leadership factors. The other variables like age, marital status, residence and ethnicity etc. made no influence on the perceived leadership abilities of students. Cooper, Healy and Simpson (1994) found significant differences in the leadership outcomes between students categorized as members as compared to non members of leadership program. Members showed significantly more growth in leadership outcomes such as developing purpose, lifestyle planning, life management, and cultural participation than non members. Astin (1997) reported a positive association between the numbers of hours spent participating and students’ leadership ability and interpersonal skills and a negative association examining the number of organizations a student was involved with. Komives et al. (1998) reported that leadership training is very important for undergraduate students because it grows their talent and helps them in decision making.

Duncan (2000) conducted a study on youth leadership development of 400 participants within the age of 13 and 15 years in the West Virginia 4-H camping program. He employed Youth Leadership and Life Skills Development Scale (Dormody, Seevers, & Clason, 1993) and reported the cronbach alpha of the YLLSDS as 0.96 in this study. The alpha values for the subscales were 0.39, 0.65, 0.88, 0.83, 0.70, 0.83, and 0.80 for “communication skills, decision making skills, skills in getting along with others, learning skills, management skills, skills in understanding self, and skills in working with groups” respectively. He concluded that females rated themselves as receiving higher leadership life skills gain than males. The self-perceived gain of leadership life skills decreased with age as 13 years old participants had the highest YLLSDS score which was followed by the 14 and 15 years old participants. He found no significant relationships between age, ethnicity, gender, place of residence, and YLLSDS’s total score. Layfield, Radhakrishna and Andreasen (2000) conducted a study to determine the self-perceived leadership skills of 58 students of a leadership course. The Leadership Skills Questionnaire (Birkenholz & Schumacher, 1994) was modified and used in this study. The coefficient alpha values were 0.87, 0.93, 0.81, 0.73 and 0.65 for administration, achievement, empathy, communication and problem solving subscales respectively and the overall value was 0.83. They found that achievement was the highest rated perceived leadership skill followed by problem-solving, empathy, administration, and communication. Pascarella and Terenzini (2005) found that leadership skills improved the self efficacy, civic sense and academic performance of students. Real and Harlin (2006) studied youth leadership life skills of school tour guides. They used “Leadership Skills Inventory (Townsend & Carter, 1983)”. This inventory included the factors i.e. “understanding self, working with groups, communicating, making decisions and leadership”. They concluded that participants were found as having better understanding self and working with groups for their leadership life skill development. College environment offered various opportunities for higher education to influence students’ development of leadership, and leadership training developed citizenship, civility and leadership efficacy among high school students (Dugan & Komives, 2007).

Simone (2012) in a qualitative study examined the leadership development experiences of 10 adolescents of grade 8 participating in a school-based leadership program of which two were male and eight were female students. He concluded from the findings that adolescents considered problem-based, real-life, and experiential learning opportunities as meaningful because these opportunities engaged them actively in leadership development. He found that leadership development gave adolescents an improved sense of self including higher self-esteem, more confidence and feelings of self-worth, self-efficacy and self-fulfilment and leadership skills acquired by students consisted of interpersonal and communication skills, problem-solving skills, decision-making skills, and the ability to influence and lead others. He noted that adolescents valued and took benefit from leadership development experiences and opportunities.

Abdrbo (2012) conducted the study to measure the leadership behaviour and characteristics of 134 nursing students of which 107 were students and 27 were staff nurses. He employed Self Assessment Leadership Instrument (Smola, 1988) which comprised the dimensions like self assessment of critical thinking and decision making skills, interpersonal relationships, group relations, and job relations to measure leadership behaviour and characteristics of nursing students. The reported cronbach alpha value was 0.94. He found that nursing students differed in their perceived leadership behaviours as staff nurses scored high than students. Salisbury, Pascarella, Padgett and Blaich (2012) examined the impact of work on college student leadership development. They noted that work had a positive impact on leadership development and off-campus employment hindered the effect of peer interactions and co-curricular involvement on leadership which implied that the engagement with others in an on-campus environment fostered the positive impact on the leadership development among students. Campbell, Smith, Dugan and Komives (2012) indicated that leadership capacities of college students were influenced by the mentorship process and concluded that both mentoring for leadership empowerment and mentoring for personal development were positively related to the leadership development, specifically socially responsible leadership.

Foreman and Retallick (2012) utilized “the social change model of leadership development” to examine students’ involvement in extracurricular

activities and leadership development. They found that the more time spent each week involved in extracurricular activities, the higher the scores was on the socially responsible leadership scale. Kovar (2014) conducted a study on the factors influencing leadership development among college students. The sample comprised 287 junior and senior university students of Missouri. He employed “Socially Responsible Leadership Scale Revised Version Two [SRLS R-2]” which comprised eight subscales i.e. “consciousness of self, congruence, commitment, collaboration, common purpose, controversy with civility, citizenship and change”. He found the outcome for commitment subscale as high which motivated the individual and drive the collective effort, and for change subscale as lowest which was concerned with the desire to make a better society. He concluded that gender, organizational involvement, community service participation and leadership education influenced common purpose which was found to be the most influenced subscale, followed closely by citizenship, and finally the group values. Rehman and Farooq (2017) found that university students were having moderate levels in “self-management, interpersonal, problem-solving/decision-making, cognitive development/critical analysis, organization and planning, self-confidence, diversity awareness, and technology” dimensions of leadership skills. They also concluded that male students had more cognitive development than female students.

The research studies presented here are related to the independent variable of the present study, classroom management styles and the dependent variable leadership development. Wenning (2002) concluded that authoritative style produced socially competent and responsible students, authoritarian style produced students who were ineffective at social interaction and somewhat inactive, and both indulgent and permissive styles produced students who were immature, showed poor self-restraint, and exhibited poor leadership skills. Chang (2012) conducted a qualitative study based on the Social Change Model (HERI, 1996) to explore the effect of autonomy-supportive and highly controlling types of teacher management styles on teacher-student relationships and specific student leadership outcomes such as consciousness of self, collaboration (communication skills) and controversy with civility (conflict resolution skills) which served as a foundation for teaching leadership within the classroom context. He categorised classroom management

styles as autonomy-supportive in which teachers facilitated congruence between the students' inner desires and their day-to-day classroom activity, and highly controlling in which teachers interfered with students' self-determination by requiring them to adhere to a constructed, instructional agenda. He found that controlling teachers fostered consciousness of self through self-analysis and self-improvement and encouraged an authority-based leadership style, and autonomous teachers often allowed students to work wherever they please, so that they eventually develop greater self-efficacy and confidence to make wise choices that can be successfully implemented, and can empowered student leadership. He concluded that both styles encouraged open communication, however, autonomy-supported classrooms had fewer student conflicts observed, and teacher management shaped teacher-student interactions and influenced the development of leadership among students. He concluded that creating an environment conducive to students' academic, social, and emotional leadership development greatly depends on the teacher's management style. He stated that caring teachers fostered positive teacher-student relationships by providing individual feedback to students to uphold high expectations, considering students' motivational resources, and consistent parent-teacher communication regardless of their management style.

Chamundeswari (2013) studied teacher management styles and leadership development of students in Tamil Nadu. The sample comprised 90 female teachers and 900 students of which 450 were female and 450 were male students. She developed Student Leadership Assessment Inventory comprising the dimensions as selflessness, persistence, consistency, affability, honesty and faithfulness to assess the leadership development among secondary students. She constructed Classroom Management Styles Inventory comprising five dimensions as authoritative, authoritarian, indulgent, permissive and contingent to measure the classroom management styles of teachers. She established coefficient of validity of tools using Bentler and Bonette (1980) and the reported value of BBNn-Normd Fit Index for Student Leadership Assessment Inventory was 0.82, and for Classroom Management Styles Inventory it was 0.89. She concluded that leadership development was highly influenced by authoritarian style which was followed by authoritative, contingency and indulgent styles, and on the other hand permissive

style contributed least to student leadership development. Further, she added “a student can be a leader only when the teacher fosters leadership among them and it is for the teacher to identify the competent students for teaching the skills and techniques of leadership”.

SUMMARY OF REVIEWS ON LEADERSHIP DEVELOPMENT

The previous research studies conducted on leadership development revealed that students perceived interpersonal relations and management of self as the stronger leadership skills (McKinley et al., 1993; Gordon, 1994), achievement as the highest rated perceived leadership skill (Layfield et al., 2000), problem-based, real-life, and experiential learning opportunities as meaningful as these lead to leadership development (Simone, 2012), and the outcome for commitment scale of leadership development as high and for change as lowest (Kovar, 2014). Other findings indicated that numbers of hours spent participating in the student organizations (Astin, 1997), leadership training (Dugan & Komives, 2007), on-campus environment (Salisbury et al., 2012), mentoring for leadership empowerment and personal development (Campbell et al., 2012), and involvement in extracurricular activities (Foreman & Retallick, 2012) contributed positively to leadership development of students. It was found that leadership skills improved the academic performance of students (Pascarella & Terenzini, 2005). Further, Komives et al. (1998) reported that leadership training was very important for undergraduate students because it grows their talent. Duncan (2000) concluded that females perceived leadership life skills gain higher than males. Real and Harlin (2006) concluded that participants were found as having better understanding self and working with groups. Abdrbo (2012) found that nursing students differ in their perceived leadership behaviours as staff nurses scored high than students. Rehman and Farooq (2017) concluded that male students had more cognitive development than female students. The researches focusing on classroom management styles and leadership development revealed that authoritative style produced socially competent and responsible students (Wenning, 2002), controlling teachers fostered consciousness of self and autonomous teachers developed greater self-efficacy and confidence (Chang, 2012), and leadership development was highly influenced by authoritarian style (Chamundeswari, 2013).

2.3 STUDIES PERTAINING TO CLASSROOM MANAGEMENT STYLES

Different researches conducted focusing on classroom management styles has been reviewed and are presented below.

Bush and Achilles (1986) found that humanistic methods of classroom management and discipline were more successful than authoritarian ones. "Classroom management had the largest effect on student achievement which indicated that students learn better in a sound, well-managed environment, emphasizing the need for teachers to utilize strategies that maintain a positive learning environment" (Wang, Haertel & Walberg, 1993). Traynor (2002) identified five strategies used by teachers in classroom management which were coercive, laissez-faire, task oriented, authoritative and intrinsic. He found that the authoritative and intrinsic strategies were pedagogically sound. Yasar (2008) studied the classroom management of 265 teachers from Kastamonu of which 157 were female and 108 were male teachers. He developed Classroom Management Inventory including 26 items which were based on student centered and teacher-centered techniques. He reported cronbach alpha reliability values for the whole inventory as 0.76, and 0.76 for student-centered and 0.78 for teacher-centered. The values reported for KMO was 0.793, and Bartlett's test of sphericity was 0.00. He employed factor analysis using principal component analysis with varimax rotation which produced two factors explaining 30% of variance. The factor loadings were ranged in 0.31-0.72 and 0.31-0.70 for the subscale of student centered and teacher-centered. He found that teachers employed student centred approach more than teacher-centred which was consistent with the constructivist instruction. He concluded that teaching experience and subjects of teaching found as affecting teachers' approaches, but gender made no affect.

Chen (2008) developed "The Junior High School Teacher's Teaching Style Questionnaire" by following Sun and Wang's (2007) "Teachers' Discipline Style Inventory" for investigating 1587 students' perceptions of their teachers' teaching styles i.e. authoritarian, democratic, laissez-faire and indifferent. He reported the reliability coefficient of full questionnaire as 0.93 and 0.89, 0.90, 0.86 and 0.81 for authoritarian, democratic, laissez faire and indifferent styles respectively. He also

employed factor analysis using principal components analysis with promax rotation to examine the construct validity of the questionnaire and reported four factors with correlated constructs which contributed a total of 53.148% variance. He concluded from the findings that indifferent teaching style was found to be the most common used style by teachers. He also found that authoritarian and democratic style had positive contribution to the test scores of students. He further added that both the establishment of rules and listening learners' opinions contributed to the academic performance.

Cadeau (2008) employed Kim's (2003) Teacher Profile comprising 12 questions indicating authoritarian, authoritative, laissez-faire and indifferent styles to explore the role of administrators in delegating facilitators to assist teachers in managing their classrooms effectively. He found that laissez-faire and indifferent styles were not considered as the good classroom management styles by the administrators. Skvarla (2008) studied disciplinary referrals, empathy and classroom management styles. The sample comprised 44 high school teachers of which 33 were female and 11 were male teachers. He employed Classroom Management Profile (Center for Adolescent Studies, 1996) which is based on the types of adult control as classified by Baumrind (1971) and which categorised classroom management styles as "authoritarian, authoritative, laissez-faire, and indifferent". He found that authoritarian teachers wrote more and authoritative teachers wrote less referrals. He further found that authoritarian teachers had low empathy and authoritative teachers had high empathy respectively. Guangco (2008) also used Classroom Management Profile (Center for Adolescent Studies, 1996) to determine the classroom management styles of the faculty. He found that faculty commonly used authoritative classroom management style and considered it the most effective style in classroom environment as students no longer need rigid discipline. He concluded that there was no relation found between the classroom management style and the teaching performance of faculty. Wilkinson, Meiers and Knight (2008) reported that authoritative classroom management style was more effective than authoritarian in improving social and academic outcomes for students. They stated that well-ordered classrooms and schools facilitated effective teaching, and good behaviour management skills were necessary for teachers to improve student learning outcomes.

Yilmaz (2009) studied the classroom management styles of 200 primary teachers of Kutahya city centre. He employed “Classroom Management Style Scale” by Ekici (2004) who reported the reliability coefficient value for the full scale as 0.87. Further, he found the coefficient values of “authoritarian, authoritative, laissez-faire and indifferent classroom management style” as 0.82, 0.80, 0.84, and 0.78 respectively. He found authoritative as the most preferred classroom management style followed by authoritarian, laissez-faire and indifferent. He noted that authoritarian teachers “thought pupils learn only when they listened to their teachers and when they paid attention to lessons”, authoritative teachers “restricted the students’ behaviour but encouraged them to act independently”, laissez-faire teachers “displayed little behaviour to control pupils and demanded little from them”, and indifferent teachers “remained uninterested in classroom activities and did not prepare teaching materials”. Chang (2010) investigated teaching styles and learning strategies in Taiwan and the sample comprised 95 students of junior high school with an age of 14-15 years. He used “The Junior High School Teacher’s Teaching Style Questionnaire (Chen, 2008)”. He concluded no correlation between teaching styles and learning strategies as per students’ perceptions, and revealed that students found indifferent style as the most common style employed by teachers. Evertson and Weinstein (2011) found that in evaluating a teacher’s managerial success, investigators typically used direct indicators such as time spent engaged in lessons and activities, the efficiency of transitions, the frequencies of problems such as off-task behaviour, disruptions, or disciplinary referrals or achievement gains or students’ attitudes toward the teacher or the class. Erozkhan (2012) noted that authoritarian and indifferent were not considered as useful styles of classroom management.

Chellal (2013) examined classroom management styles and the discipline problems. The sample was consisted of 178 international school teachers of Bangkok. He developed Classroom Management Styles Questionnaire which was tested for content validity and reliability comprising authoritative, authoritarian, indulgent and permissive styles. He found that indulgent was the most frequently used classroom management style by the teachers followed by authoritative, permissive and authoritarian. He concluded that indulgent and authoritative styles

should be used to reduce most classroom discipline problems, while permissive and authoritarian style should be used selectively to handle certain classroom discipline problems.

Chamundeswari (2013) found that authoritative, authoritarian and contingency management style had respectively 40%, 65%, 15% influence on the academic performance whereas permissive and indulgent style of management was found to be contributing nothing to academic performance. According to her, “ineffective management lead to serious conditions of indiscipline causing damage to the conductive climate for learning”. In his study, Hoots (2014) took the sample from 94 teachers of which 8 were males and 86 were females with an average age of 42.58 years. He employed Classroom Management Profile (Center for Adolescent Studies, 1996) and found that the cronbach alpha of authoritarian was 0.34, for authoritative it was 0.38, for laissez-faire it was 0.34, and for indifferent it was 0.34 and so, he reported the low reliability of Classroom Management Profile. He found that stress and indifferent classroom management style were having positive relations with each other. This profile was also used by UNESCO (2015), Dunbar (2004) and Jones (2001) in their studies but none have reported the validation evidence of this tool. Ali and Badah (2014) constructed a questionnaire comprising 74 items on the management styles of classroom comprising traditional, authoritarian, democratic and leisurely styles to identify the dominant classroom management style of the faculty members as viewed by 400 female students of B.A. of Alia University College. They reported the reliability coefficient of the full questionnaire as 0.90 and the values of the four subscales were 0.93 for traditional, 0.91 for authoritarian, 0.89 for democratic, and 0.87 for leisurely management styles of the classroom. They stated that the students depended on teacher and paid their obedience and respect in traditional management style. Authoritarian management style granted the teacher the right of passing orders and decision making. In democratic management style, teacher established good relations between him and his students. Leisurely management style gave students freedom to execute what they feel correct and suitable for them and the teacher enjoyed a loveable personality by not imposing a view over his students. They found that democratic style was the most dominant and prevailing style used by faculty members as viewed by students

followed by the leisurely style, and authoritarian style was found as the least used style by faculty members of all the management styles. They found no difference in the dominant management style used by faculty members due to gender except for leisurely management style. They concluded that male faculty used leisurely management style more than female faculty.

Pektas and Saygili (2014) analyzed the classroom management approaches of 505 teachers of public and private schools in Turkey. They employed Classroom Management Styles of Teachers Scale (Terzi, 2001) comprising autocratic, democratic and disinterested dimensions of classroom management styles. They reported cronbach alpha coefficient of the entire scale as 0.82. They found that the attitude of democratic management was influenced by many factors whereas few factors influenced the attitudes of autocratic or authoritarian and disinterested management. They concluded that authoritarian classroom management style was shown more by female teachers than male teachers. They found that increased professional seniority level of teachers and socio-economic level of the schools lead to the increase in democratic management style. They revealed that private school teachers exhibited disinterested classroom management style more than public schools teachers, and public school teachers exhibited authoritarian management more as compared to private schools. Sadik and Sadik (2014) investigated classroom management profiles of 1238 pre-service teachers and employed Classroom Management Profile (Santrock, 1996). They reported the values of cronbach alpha as 0.72, 0.68, 0.52 and 0.65 for “authoritarian, authoritative, laissez-faire and indifferent” respectively. They found that pre-service teachers had high authoritative and laissez-faire classroom management profile. Further, no significant difference was found among laissez-faire, indifferent and authoritarian classroom management profiles on the basis of gender except for authoritative dimension in which female pre-service teachers had higher profile. While focusing on the use of right style, Adah and Ochebo (2014) said “utilizing appropriate classroom management style such as democratic style will help to elevate individuals that are technically inclined to acquire skills for employment”.

Kyoshabire (2014) concluded that autocratic and laissez faire management style should be discouraged because they generated environments that might not

enable most students learn and produce better academic grades. They suggested that teachers should employ management styles that enhance students' learning for better academic grades and should work as a team to generate a variety of ideas, skills and abilities good enough to facilitate students learning for better grades. According to Marquette (2014), "teachers use different management styles in their classrooms to build a strong, positive relationship with their students and make their classroom conducive for learning". He classified classroom management styles into authoritative, indulgent, laissez-faire and balanced. Further, he explained "the balanced classroom management style combined the authoritative and indulgent management styles as these teachers set clear behavioural rules, conducted an orderly classroom and guided the lessons like an authoritative teacher but they also kept the classroom student centred by allowing them freedom to voice their opinions, thoughts, and creativity through group discussions like an indulgent teacher".

In their study, Okwori, Owodunni and Abiodun (2015) concluded that when teachers taught basic technology subject to students, they used democratic and bureaucratic styles. They also suggested the use of democratic approach for the attainment of educational objectives by improving students' participation and reducing failure. They further noted that when teachers did not use suitable type of management, students can lose the importance and interest of the subject being taught which can lead to low performance. Munir and Rehman (2016) determined the main learning strategies frequently used by the students of 20 public high schools of Lahore, Pakistan, and teaching styles. The sample comprised 560 students which were randomly selected of which 280 were boys and 280 were girls. They employed Chen's (2008) Teaching Style Questionnaire. They found that democratic teaching style was the most frequent observed style by students' perceptions followed by indifferent, laissez-faire and authoritarian styles. They further found significant difference in the most frequently perceived teaching style and students' most frequently utilized strategies of learning. Hoon, Nasaruddin and Singh (2017) found that interventionist teachers of primary schools in Malaysia were having more communication skills than interventionalist teachers. Ahmed, Ambreen and Hussain (2018) found that female school teachers exhibited more classroom management skills on "meet the basic needs of students, teamwork, build relationships with

students, love and logic approach, organization in the classroom and establishment of rules, standards, and routines” dimensions of classroom management than male teachers. Magulod, Capili and Pinon (2019) found that college instructors mostly used authoritative classroom management style.

SUMMARY OF REVIEWS ON CLASSROOM MANAGEMENT STYLES

The existing research on classroom management styles suggested the use of humanistic methods of classroom management and discipline (Bush and Achilles, 1986), authoritative strategies for being pedagogically sound (Traynor, 2002), student centred approach for being consistent with the constructivist instruction (Yasar, 2008), authoritarian and democratic style for their positive contribution to the test scores of students (Chen, 2008), authoritative classroom management style for its positive contribution to students’ social and academic outcomes (Wilkinson et al., 2008), democratic approach for the attainment of educational objectives (Okwori et al., 2015). Whereas, some studies reported that indifferent and laissez-faire were not considered as the good classroom management styles by the administrators (Cadeau, 2008), and autocratic and laissez-faire management styles should be discouraged for being less productive to learning and academic grades (Kyoshabire, 2014). Some classroom management styles employed by the teachers i.e. authoritative (Yilmaz, 2009; Guangco, 2008), indifferent (Chen, 2008; Chang, 2010), indulgent (Chellal, 2013), authoritative and laissez-faire (Sadik & Sadik, 2014), and democratic (Ali & Badah, 2014; Munir & Rehman, 2016) emerged as the most preferred, frequently used, dominant and prevailing styles. Further, Skvarla (2008) reported that authoritarian teachers wrote more referrals and had low empathy, and authoritative teachers wrote less referrals and had high empathy. Hoots (2014) found that stress and indifferent classroom management style were having positive relations with each other. Pektas and Saygili (2014) found that private school teachers exhibited disinterested classroom management style more than public schools teachers and public school teachers exhibited authoritarian management more as compared to private schools. Ahmed et al. (2018) found that female school teachers exhibited more classroom management skills than male teachers. Magulod et al. (2019) found that college instructors mostly used authoritative classroom management style.

2.4 STUDIES PERTAINING TO CREDIBILITY

The studies related to the credibility have been found and discussed from the review of literature below.

McCroskey et al. (1974) attempted to design an instrument specifically to measure teacher credibility. They analyzed the data from the three samples separately. The first sample included 642 students, the second sample involved 663 students and the third sample study involved 575 students. Their study suggested the presence of five dimensions of source credibility for teachers i.e. competence, extroversion, composure, character and sociability. They signified the importance of establishing credibility in the classroom. They found that high credibility of teachers assisted students in the recalling of more accurate information.

Thweatt and McCroskey (1998) investigated the impact of teacher immediacy and misbehaviour on student perceptions of their teachers' credibility. They used 18-item scale to measure teacher credibility which is developed by Teven and McCroskey (1997) and reported cronbach alpha for competence, caring and trustworthiness as 0.89, 0.93 and 0.83 respectively. They found that teacher immediacy contributed strongly and positively to credibility, but teacher misbehaviour made negative contribution to credibility. They found strong positive effects for teacher immediacy and strong negative effects for teacher misbehaviour on competence, caring and trustworthiness dimensions of credibility. While examining interaction effects, they found that low teacher immediacy produced perceptions of low credibility irrespective of the presence of misbehaviour or non misbehaviour of the teacher and in the presence of high teacher immediacy, misbehaviour significantly lowered perceived teacher credibility. They also stated that a major goal of teachers was to spark understanding in the minds of the students and source credibility was important in the learning process. They concluded that teachers who were perceived to be more credible produced more positive affect toward themselves and the content of the class and students' cognitive learning was related to their perceptions of their teachers' credibility which meant that the higher the credibility, the higher the learning.

Patton's (1999) sample comprised 237 university students, and he used scales for the measurement of ethos by McCroskey (1966), and McCroskey and Young (1981). He concluded that gender of the instructor and instructor's credibility were not related with each other. In his study, Myers (2001) revealed that the relationship between teacher credibility and their verbal aggressiveness was negative as students perceived such teachers less competent and caring. He claimed that instructor credibility affected the instructor-student relationship largely. McCroskey et al. (2004) used the Source Credibility Measure advanced by McCroskey and Teven (1999) and reported the alpha reliability estimates as 0.86, 0.92, and 0.88 for competence, caring/goodwill and trustworthiness respectively. They stated that more credible teachers produced more positive instructional outcomes. Teven and Hanson (2004) employed the credibility measures developed by Teven and McCroskey (1997). They reported the internal reliability estimates as 0.90, 0.92 and 0.97 for competence, trustworthiness and perceived caring respectively in study one and 0.91, 0.89 and 0.97 for competence, trustworthiness and perceived caring respectively in study two. Their results indicated that teacher caring and teacher immediacy strongly and positively contribute to teacher credibility whereas strong negative contribution has been reported for teacher non-caring and nonimmediacy. It was also found that perceptions of low teacher caring produced negative perceptions of teacher credibility irrespective of the presence of immediacy or nonimmediacy of teachers.

Banfield, Richmond and McCroskey's (2006) sample comprised 288 undergraduate university students. They employed Source Credibility Measure (McCroskey & Teven, 1999) and reported alpha reliability for competence, trustworthiness and caring as 0.90, 0.92, and 0.90 respectively. They concluded from the findings that misbehaviour of the teachers impacted their credibility. Chory (2007) investigated the relationship between college students' perceptions of instructor credibility and classroom justice. The sample comprised 155 undergraduate students of a mid-Atlantic university. He found that teacher credibility positively affected students' perceptions of classroom justice. He concluded that character dimension of teacher credibility was related to procedural, distributive, and interactional justice, while caring dimension of teacher credibility

was related to procedural and interactional justice, and competence dimension of teacher credibility was related to interactional justice.

Martinez-Egger and Powers (2007) included 150 students as the sample of which 60 were males and 89 were females. They found that teacher credibility, students' respect and evaluation of the teachers were strongly and positively correlated. In Finn et al.'s (2009) meta-analysis study, the sample comprised 14378 participants. They noted that students had reported improved motivation to learn when they found their teachers as credible. Clune (2009) examined the relationships between students' perceptions of instructors' credibility, gender role, and communication style. The sample consisted of 461 undergraduate students of which 35.8% were male students and 64.2% were female students. He employed Teacher Credibility Scale (McCroskey & Teven, 1999). He reported the acceptable reliability values for the dimensions of teacher credibility for each of the three categories of instructors. As, for the good instructors competence, character and caring were found to be 0.81, 0.86 and 0.78 respectively, for the male instructors, competence, character and caring was 0.85, 0.88 and 0.84 respectively, and for the female instructors, competence, character and caring was 0.90, 0.92 and 0.86 respectively. He found that good male instructors were more often considered credible and assertive while good female instructors were more often considered caring and responsive. He stated that students' perceptions of their instructors' credibility had a profound influence on student learning and classroom communication.

Zhang and Sapp's (2009) sample comprised of 182 college students in the Northeast of which 60 were boys and 122 were girls. They used Source Credibility Measure (McCroskey & Teven, 1999) and the alphas for each of these subscales were 0.95, 0.94 and 0.94 for competence, caring and trustworthiness respectively. They found that teacher credibility was negatively impacted by teacher burnout as students perceived those teachers as more credible who had low burnout than those who had high burnout. In his study, Henning (2010) collected the data from 278 university students and found that teacher credibility predicted the affective learning of students.

Santilli, Miller and Katt (2011) made a study on a sample comprised 66 students from Brazil of which 57% were males and 42.4% were females, and 100 students from United States of which 44% were males and 54% were females. 92% of Brazilian students and 97% of U.S. students were between the ages of 18 and 23. They used Source Credibility Scale (Teven & McCroskey, 1997) which consisted of three subscales. They reported the alpha reliabilities for caring, competence and trustworthiness as 0.75, 0.71 and 0.89 respectively for the sample of Brazil, and 0.89, 0.79 and 0.85 respectively for the sample of United States. They conducted exploratory factor analysis to determine whether the measures factored similarly in both samples. Using principal components analysis with varimax rotation, they indicated the measures factored similarly. They reported that teacher credibility and nonverbal immediacy were having positive relations in United States, but nonverbal immediacy was found to be having positive relations with competence and caring in Brazil. They also concluded that the relationship of nonverbal immediacy with instructor competence was stronger for Brazilian students than U.S. students. In the study of Wang, Novak, Scofield-Snow, Traylor and Zhou (2015), the sample involved 92 undergraduate students selected by convenience sampling. They utilized two-dimensional Teacher Credibility Scale (McCroskey et al., 1974) and reported the cronbach alpha for the scale as 0.79. They found that revealing information about alcohol consumption and emotional problems concerning a personal relationship negatively influenced student perception of teacher credibility. They further concluded that male teachers were perceived more credible than female teachers in general, and emotionally-loaded self-disclosure had no influence on female teacher's credibility, but it reduced the male teacher's credibility.

Al-Zoubi (2016) examined the relationship between teacher misbehaviour and teacher credibility and identified their levels among undergraduates in Jordan. The sample included 39 males and 234 females with an average age of 20 years. He used Teacher Credibility Scale (McCroskey & Teven, 1999) and reported the values of cronbach's alpha as 0.74, 0.75 and 0.69 for competence, caring and trustworthiness respectively. He found that irresponsibility and teacher credibility were negatively related. In the study of Pishghadam et al. (2017), the sample comprised 300 English language learners of which 98 were males and 202 were

females. They used Teacher Credibility Scale (McCroskey & Teven, 1999) and translated it into Persian whose cronbach's alpha reliability was found as 0.86. They reported that teacher credibility and achievement scores were having positive relations as teacher credibility contributed to high scores. Further, the results revealed that life syllabus and emotionalization contributed to the teacher credibility. Kuan, Teng, Hong, Fong and Wen (2017) found that male and female undergraduate students had similar perceptions of their teachers' credibility, and perceived teacher self-disclosure and teacher credibility were positively related.

Boer and Bordoloi (2018) reported the cronbach alpha coefficients as 0.88, 0.85 and 0.84 for competence, trustworthiness and caring/goodwill dimensions of Teacher Credibility Scale (McCroskey & Teven, 1999). The study sample was selected by purposive sampling technique and comprised of 183 students following the International Business programme at an undergraduate level at one of the most international Universities of Applied Sciences in the Netherlands. The study sample had students from 35 different countries with the Dutch (42%) and German (19%) students constituting the largest group. They found a significant and strong positive correlation between the dimensions of teacher credibility but no significant correlation was found between teacher credibility and affective learning. Karimi and Ziaabadi (2019) found that teacher credibility influenced the motivation of students. Fernandes (2019) found that teacher communication and credibility were related with each other as perceived by 9th class school students.

SUMMARY OF REVIEWS ON CREDIBILITY

From the existing research on teacher credibility, it was reported that high credibility of teachers was related with recalling of more accurate information (McCroskey et al. (1974), positive instructional outcomes (McCroskey et al. (2004), improved motivation to learn (Finn et al., 2009), affective learning of students (Henning, 2010), and good achievement scores of students (Pishghadam et al., 2017). Further, Thweatt and McCroskey (1998) found that teacher immediacy contributed strongly and positively to credibility, but teacher misbehaviour made negative contribution to credibility. Patton (1999) concluded that gender of the instructor and instructor's credibility were not related with each other. Myers (2001)

found that teachers who used verbally aggressive messages were perceived as being less competent and caring. Teven and Hanson (2004) indicated that teacher caring and teacher immediacy strongly and positively contribute to teacher credibility whereas strong negative contribution has been reported for teacher non-caring and nonimmediacy. Banfield et al. (2006) concluded from the findings that misbehaviour of the teachers impacted their credibility. Chory (2007) found that teacher credibility positively affected students' perceptions of classroom justice. Clune (2009) found that good male instructors were more often considered credible and assertive, while good female instructors were more often considered caring and responsive. Zhang and Sapp (2009) found that teacher credibility was negatively impacted by teacher burnout as students perceived those teachers as more credible who had low burnout than those who had high burnout. Santilli et al. (2011) reported that teacher nonverbal immediacy was having good relationship with source credibility. Wang et al. (2015) found that revealing information about alcohol consumption and emotional problems concerning a personal relationship negatively influenced student perception of teacher credibility and male teachers were perceived more credible than female teachers in general. Al-Zoubi (2016) found that irresponsibility and teacher credibility were negatively related. Boer and Bordoloi (2018) found that the dimensions of teacher credibility were strongly correlated but no significant correlation was found between teacher credibility and affective learning. Fernandes (2019) found that teacher communication and credibility were related with each other.

2.5 STUDIES PERTAINING TO INSTITUTIONAL SUPPORT

The research studies related to institutional support and its components i.e. academic support, non-academic support and institutional facilities have been found and discussed from the review of literature.

The studies presented here are related to the institutional support and institutional resources. Scott (2008) used the four functional areas i.e. academic advising, registration services, orientation and new student programs and institutional facilities of institutional support in his study. He found that institutional support fostered recruitment, retention, goal attainment for the students. His findings

suggested that students and faculty perceived the associated practices of institutional support impacting community college students differently, indicating that student and faculty perceptions were not in agreement regarding the institutional support. Further, it was concluded that gender perceptions of institutional support indicated a significant statistical difference in the practices impacting student success. With the aim to examine first and second year students' perceptions of institutional supports and resources provided by university, Milman et al. (2015) constructed a survey instrument on a 5-point likert scale by following Rovai's Composite Persistence Model (2003) and Dare, Zapata and Thomas's (2005) survey questions. This instrument consisted of the questions related to administrative support services which comprised registrar, admissions office, financial aid, career counselling, counselling centre, bookstore, student organizations, veteran services, international services, academic support services which comprised individual support from instructors, libraries, academic program advising, online academic orientation, writing centre, technical support services which comprised instructions/help embedded in courses, tech support help line, online technology orientation, just-in-time online help, face-to-face technical orientation, and online community support services of university provided to students. They found that students rated instructor support, embedded help and library services more important than career and bookstore services, and writing centre, international student and veteran's services, counselling centre.

The research studies presented here are related to the social support and faculty support. O'Reilly-Knapp (1992) investigated the types of social support students perceived as obtained and desired from faculty. The sample was comprised of 242 nursing students in the junior and senior year of baccalaureate programs. He constructed the Revised Inventory of Social Supportive Behaviours [ISSB] based on Barrera, Sandler and Ramsay's (1981) ISSB. He changed the seven items of original inventory and reported the content validity index for the changed items as 0.89. He further reported that factor analysis for Revised ISSB disclosing three components such as nondirective support producing 29.2%, directive guidance producing 5.9% and tangible assistance producing 5.4% of variance. The values of coefficient alpha ranged from 0.66 to 0.94. It was found that guidance and feedback were considered

as the most helpful and desired support by students. Further, juniors scored higher than seniors in directive guidance. Richman et al. (1998) used school success profile to measure eight types of social support received by the middle and high school students, and concluded that emotional support, emotional challenge support, and reality confirmation support from parents, peers, and teachers was related with the school satisfaction of students. Shelton (2000) constructed a 5-point likert scale based on the studies of Bandura (1997) and Tinto (1993) named Perceived Faculty Support Scale consisting of 24 items to measure psychological and functional support which was designed to measure students' perceptions of the support received from faculty in their nursing program. To establish the content validity, he took expert view from three nurse educators and the criterion for acceptable content validity of each item was 0.75. The result of factor analysis reported that factor 1 (psychological support) accounted for 31.1% of variance and produced the loadings from 0.52 to 0.79, on the other hand, factor 2 (functional support) accounted for 25.6% of variance and produced the loadings from 0.49 to 0.77. The reported cronbach's alpha value for full scale was 0.96. From the results, it is concluded that perceived faculty support, and persistence and academic performance were correlated, and higher perceived faculty support helped students to continue the study and be successful academically. Malecki and Demaray (2003) investigated social support i.e. "emotional, informational, appraisal, and instrumental" which students perceived from different persons i.e. "parent, teacher, close friend, classmate, and school". The sample comprised 263 students from 5th to 8th grade. They employed "Child and Adolescent Social Support Scale [CASSS] (Malecki, Demaray & Elliott, 2000)". In the reported values of factor analysis, factor loadings ranged from 0.57 to 0.86, eigen values for four factors ranged from 16.81 to 2.92, and the value for internal consistency was 0.96 (Malecki et al., 2000). They found that parents' and teachers' support was perceived similarly by male and female students. Further, female students were found as perceiving classmates' and friends' support more than male students. They concluded that emotional support and informational support from parents were highly reported. They concluded emotional support as being significantly related to academic outcomes. Fezer (2008) investigated social support and adolescents. The sample comprised 471 adolescents from grades 9 to 12 of high school. He employed a rating scale named "Child and

Adolescent Support Scale (Malecki & Demaray, 2003)” to measure students’ perceived social support. He concluded that female students perceived more emotional, informational, appraisal and instrumental support from all persons than male students, yet female students did not receive the support which could contribute to their school success. In the case of male students, emotional support contributed greatly to their school success. Suldo et al. (2009) used 12-item teacher support subscale of CASSS (Malecki et al., 2000) to measure social support namely “emotional, instrumental, appraisal and informational”. They reported coefficient alpha values ranging from 0.83 (instrumental support) to 0.89 (emotional support) and concluded that the teachers, who used variety of teaching strategies, connected to students’ emotions, facilitated students academically, encouraged questioning in the classroom and made fair interactions, were considered supportive by their students.

The research studies presented here are related to the academic support. In a study conducted on 270 Adolescents of 9th to 11th grade of a Hong Cong secondary school, Chen (2005) developed a questionnaire consisting scales “Perceived Parental Academic Support Scale [PPASS], Perceived Teacher Academic Support Scale [PTASS], Perceived Friend/Peer Academic Support Scale [PFASS]” to assess students’ self perceptions of academic support (emotional, instrumental and cognitive) received from parents, teachers and peers on a “5-point likert-type scale” ranging from “strongly disagree” to “strongly agree”. He reported high internal consistency of scales as the alpha coefficient values were 0.88, 0.89 and 0.88 respectively for PPASS, PTASS and PFASS. Similarly, the results for R² coefficient were 0.88, 0.91 and 0.88 for PPASS, PTASS and PFASS respectively. Further in structural equation model analyses using program LISREL 8, the reported values of multiple indexes were 13.85, 0.99, 0.96 and 0.024 for X², GFI, AGFI, and RMSEA respectively. He found perceived parental support and teacher support directly related to academic achievement of adolescents. Alfaro et al. (2006) examined the influence of the perceived levels of academic support given by family members, teachers and peers on the academic motivation of students. The sample was taken from five Midwestern high schools, and in total 310 students of which 154 were boys and 156 were girls were selected from 9th and 10th class within the age of 14 to

17 years. Academic support was measured with Academic Support Scale (Sands & Plunkett, 2005) which consisted of seven items. Plunkett and Bamaca-Gomez (2003) had reported the values of coefficient alphas for the scale as 0.72 and 0.78. Alfaro et al. noted that coefficient alphas were found as 0.92, 0.94, 0.90 and 0.90 for mother, father, teachers and peers support subscales. They found that the perceived academic support from teachers and mothers were positively related to female students' academic motivation, and support from fathers and teachers were found as positively related to male students' academic motivation. Afshar (2009) constructed a questionnaire to check undergraduate students' perception and satisfaction or dissatisfaction with social and personal needs, information related concerns, life goals and objectives of their advisors' academic advising. The sample comprised 156 students. He found students being satisfied with their social and personal needs and the advisor's attitudinal skill, and dissatisfied with advisor's lack of knowledge and information. Junio-Sabio (2012) constructed a tool to measure the level of importance of academic support services such as "registration and admission services, library services, information and learning technology services, academic advising, student learning support services, and teaching resources" assessed by 336 Gulf college students. He found that college students perceived all services important.

The studies presented here are related to the non-academic support. Lotkowski, Robbins and Noeth (2004) in an act policy report found that non-academic factors such as "academic-related skills, academic self-confidence, academic goals, institutional commitment, social support, financial support", and student retention were correlated. They further found that academic self-confidence and achievement motivation were strongly related to college GPA. They noted that academic factors made contribution for college retention and performance but non-academic factors were equally important as they were necessary to develop "academic self-confidence, academic goals, institutional commitment, social support and involvement". Adelman and Taylor (2011) explained non-academic learning supports as the resources, strategies, and practices that provided "physical, social, emotional, and intellectual supports" intended to enable all pupils to have an equal opportunity for success at school. Non-Academic student support services

committee submission (Memorial University of Newfoundland, 2011) discussed that teaching and learning creatively involved academic and non-academic components to develop the students' wholesome personality. The non-academic student support services were focused towards the physical, social, and emotional well-being and helped in the creation and development of a supportive community of learning. These services involved counselling, student engagement, student support, providing safe environment, career support services, campus employment opportunities, maintaining co-curricular record, health services, physical activities etc. They recommended some more services to improve non-academic support such as providing space, promoting success, coordination, promotion, development and full implementation of e-portfolios and co curricular record, seamless communication, faculty engagement etc. The importance of non-academic support was suggested by Cabrera, Miner and Milem (2013) who stated that when academic support was provided in isolation from the provision of or connection to social support networks, students would be less successful. According to Ford, Pando, Pfeffer and Simmons (2013), non-academic aspects were positively related to academic success because student engagement meant their involvement in co-curricular activities and participation in campus events that helped students connect to an affinity group that was achievement oriented. Helmcamp (2015) noted that the Working Poor Family Project encouraged states to include non-academic student support services in their strategies to increase college completion. He explained that academic supports helped students to develop their academic skills, and non-academic supports addressed a distinct set of skills, knowledge, and resources that students need to be successful in college. He emphasized that non-academic student supports played a pivotal role in students' college persistence by addressing the financial, developmental, and other social factors. Non-academic support services were delivered both informally and formally through student orientation events, student success courses, academic support programs such as learning communities, or as a part of academic advising and counselling. Donaldson, Mian, Rodriguez, Wang and Weisenbacher (2015) stated that academic support strategies were important to address the gap in student success but at the same time biggest barriers to success lied outside the college to which non-academic support strategies worked for.

The studies presented here are related to the institutional facilities and school facilities. Hallack (1990) noted that facilities like “school buildings, classroom, accommodation, libraries, laboratories, furniture, recreational equipment, apparatus, instructional materials”, and their availability, relevance and adequacy contributed to academic achievement. He reported that school buildings which are not attractive and classrooms which are overcrowded contributed to poor achievement in academics. Veltri, Banning and Davies (2006) suggested the linkages between the classrooms’ physical qualities, and student learning and persistence. They concluded that classroom played a key role in postsecondary student development and learning as student-learning-friendly classrooms supported the academic achievement of students. MCGowen (2007) examined the impact of school facilities on school outcomes. The sample comprised 101 principals of Texas high schools. He used Total Learning Environment Assessment [TLEA] (O’Neill, 2000) which was consisted of three sections. The first section comprised historical information about the campus facilities, second section comprised educational adequacy which included “academic learning space, specialized learning space and support space”, and third section comprised environment for education which included “exterior environment and interior environment”. He found that school facilities were related to student discipline and teacher turnover. He further found no relationship between student achievement, attendance, completion rate, and school facility conditions. Owoeye and Yara (2011) studied school facilities and academic performance of agricultural students. Their sample comprised final year students of 50 secondary schools in the rural and urban areas of Ekiti state of Nigeria. They designed Student and Teacher Questionnaire on Facilities [STQF] to measure the availability of facilities like laboratories, textbooks and libraries. They found that rural and urban secondary schools did not differ significantly in terms of availability of library facilities, textbooks and laboratory facilities. Timilehin (2012) researched on school facilities and students’ achievement on a sample of 1200 teachers from 60 public secondary schools in south-west Nigeria. He used Secondary School Effectiveness Questionnaire [SSEQ] and the reliability co-efficient using Pearson product moment correlation was 0.87. He found that physical facilities of schools were inadequate and students achieved well in the affective and psychomotor domains of learning. He concluded that the school facilities had significant relationship with students’

affective and psychomotor achievement. Khurshid and Khan (2012) explored teachers' perceptions of school facilities, and students' academic achievement from public and private schools. The sample consisted of 100 school teachers both male and female selected from 10 schools of Rawalpindi and Islamabad. They developed School Facilities Scale comprising 29 items and six sub scales namely facilities for physical, social, emotional, academic, spiritual and cognitive development and each subscale comprised of 5, 8, 3, 5, 3 and 5 items respectively. The alpha reliability coefficient values were 0.377, 0.713, 0.308, 0.552, 0.339 and 0.475 for physical, social, emotional, academic, spiritual and cognitive development respectively and for total scale the value was 0.839. They reported that inter scales correlation was found between 0.111-0.530 which were correlated with each other and the total scale. They reported that students from private schools scored better than public sector schools and private institutions provided good school facilities than public schools. They concluded from the findings that younger teachers, female teachers, single teachers, teachers having 10,000-30,000 income, contract teachers, teachers having master's degree and the teachers who have 5 to 10 years of service had more positive perceptions towards the existing facilities provided by their respective schools than the older teachers, male teachers, married teachers, teachers having above 50,000 income, permanent teachers, teachers who have education below master's degree and the teachers who have above 10 years of experience respectively. Kalita (2013) examined the relationship of academic performance with institutional facilities and career expectations of students. The sample comprised 500 secondary school students of 10th class from the two districts of Assam of which half were male and half were female students. He constructed a questionnaire for institutional facilities which included classroom, library, teaching-learning, computer and internet, transportation, hostel, students support, health and sanitation facilities as its dimensions. He found that 65.6% students reported that institutional facilities had average level in their school. On the basis of gender, he reported that most of the boys and girls viewed that institutional facilities had average level. Further, academic performance and institutional facilities were found to be negatively correlated. Harmening and Jacob (2015) conducted a qualitative case study and their sample comprised 27 college students. They used "Strange and Banning's (2001) model of dynamic campus learning environments" which

comprised four aspects i.e. safety, involvement, inclusion, and community of campus environment that promoted or impacted learning. They defined safety as the condition having a safe campus environment free of physical or mental threat and meeting the basic human needs. Involvement was described as the opportunities to learn about new topics, others and self. Inclusion referred to the sense of being included or belongingness and engaged or involved in the process of widening beliefs, or activities, to include other viewpoints different from one's own or to include others who were outwardly different from one's self. Community meant that the students were involved members, engaged in meaningful and purposeful activities. Involvement was defined as engaging students in the organization where they learn through challenge and risk taking (Strange & Banning, 2001). They found that these four aspects of campus learning environment positively impacted the well-being of students.

SUMMARY OF REVIEWS ON INSTITUTIONAL SUPPORT

The existing research related to institutional support supported the relations between perceived faculty support and academic performance (Shelton, 2000), emotional support and academic outcomes (Malecki & Demaray, 2003), emotional support and school success (Fezer, 2008), perceived parental and teacher support and academic achievement of adolescents (Chen, 2005), perceived academic support and academic motivation (Alfaro et al., 2006), non-academic factors and student retention (Lotkowski et al., 2004), non-academic aspects and academic success (Ford et al., 2013), school facilities and academic achievement (Hallack, 1990), school facilities and students' affective and psychomotor achievement (Timilehin, 2012), campus environment and well-being of students (Harmening & Jacob, 2015). Further, Scott (2008) found that students and faculty perceived the associated practices of institutional support impacting community college students differently and gender perceptions of institutional support indicated a significant statistical difference in the practices impacting student success. Milman et al. (2015) revealed that students rated instructor support, embedded help and library services more important than career and bookstore services, and writing centre, international student and veteran's services, counselling centre. Suldo et al. (2009) concluded that the teachers, who used variety of teaching strategies, connected to students'

emotions, facilitated students academically, encouraged questioning in the classroom and made fair interactions were considered supportive by their students. Afshar (2009) found students being satisfied with their social and personal needs and the advisor's attitudinal skill, and dissatisfied with advisor's lack of knowledge and information. Junio-Sabio (2012) found that college students perceived all academic support services important. Adelman and Taylor (2011) stated that non-academic learning supports provided physical, social, emotional, and intellectual supports intended to enable all pupils to have an equal opportunity for success at school. Helmcamp (2015) emphasized that non-academic student supports played a pivotal role in students' college persistence by addressing the financial, developmental, and other social factors. Donaldson et al. (2015) stated that academic support strategies were important to address the gap in student success but at the same time biggest barriers to success lied outside the college to which non-academic support strategies worked for. Veltri et al. (2006) concluded that classroom played a key role in postsecondary student development and learning as student-learning-friendly classrooms supported the academic achievement of students. McGowen (2007) found no relationship between student achievement, attendance, completion rate, and school facility conditions. Owoeye and Yara (2011) found that rural and urban secondary schools did not differ significantly in terms of availability of library facilities, textbooks and laboratory facilities. Khurshid and Khan (2012) revealed that private institutions provided good school facilities than public schools. Kalita (2013) reported that academic performance and institutional facilities were found to be negatively correlated.

2.6 SIGNIFICANCE OF THE STUDY

Classroom management styles of teachers affect the learning of students as teachers manage activities, classroom discipline, examination, behaviour of their students and the whole curriculum. Teachers can assess the potential of the students and fulfill their needs. Teachers as good managers plan and manage the curriculum to give opportunities to students for the learning of various skills. The existing research on classroom management styles have suggested the use of authoritative strategies for being pedagogically sound (Traynor, 2002), student centred approach for being consistent with the constructivist instruction (Yasar, 2008), authoritarian

and democratic style for their positive contribution to the test scores of students (Chen, 2008), authoritative classroom management style for its positive contribution to students' social and academic outcomes (Wilkinson et al., 2008), and democratic approach for the attainment of educational objectives (Okwori et al., 2015). Whereas, studies have also reported that indifferent and laissez-faire are not considered as the good classroom management styles by the administrators (Cadeau, 2008), and autocratic and laissez-faire management styles should be discouraged for being less productive to learning and academic grades (Kyoshabire, 2014). It is clear from the above reviews that classroom management styles make significant contribution to the learning outcomes and it is the first independent variable in the present study which includes authoritarian, laissez-faire, democratic and indifferent classroom management styles. When teachers behave in an expert manner, care about their students, treat them well and show honesty towards them, then students start liking and respecting them more, and ultimately perceive them as credible teachers. Credibility of teachers is the second independent variable in the present study which includes competence, trustworthiness and perceived caring or goodwill dimensions of credibility which impact the learning outcomes. The existing research on teacher credibility have shown that high credibility of teachers is related with recalling of more accurate information (McCroskey et al., 1974), positive instructional outcomes (McCroskey et al., 2004), improved motivation to learn (Finn et al., 2009), affective learning of students (Henning, 2010), and achievement scores of students (Pishghadam et al., 2017).

Institutional support is also very important for students as policies and practices of the institution assist them by identifying, assessing and providing solutions to their needs and diversity. It is the third independent variable in the present study which includes academic support, non-academic support and institutional facilities provided by the school which impact the learning outcomes. The existing research related to institutional support have shown the relations between perceived faculty support and academic performance (Shelton, 2000), emotional support perceived from teachers and academic outcomes (Malecki & Demaray, 2003), perceived teacher emotional support and school success (Fezer, 2008), perceived teacher support and academic achievement of adolescents (Chen,

2005), perceived academic support from teachers and academic motivation (Alfaro et al., 2006), non-academic factors and student retention (Lotkowski et al., 2004), non-academic aspects and academic success (Ford et al., 2013), school facilities and academic achievement (Hallack, 1990), school facilities and students' affective and psychomotor achievement (Timilehin, 2012), and campus environment and the well-being of students (Harmening & Jacob, 2015).

Thus, the research studies focusing on classroom management styles, credibility of teachers and institutional support have been discussed above whose relations with different learning outcomes have been reviewed from the literature. In the present study, the impact of classroom management styles, credibility of school teachers and institutional support on the achievement motivation and leadership development among students will be studied. The achievement motivation and leadership development among students depend upon the ways through which teachers handle students, manage their learning, maintain credibility in the eyes of students, and on the institutional support provided by schools through which various supports and facilities are given to fulfil students' needs.

It is necessary to develop and encourage achievement motivation among students, so that they can strive to achieve excellence and success. It is studied as a dependent variable. From the previous research studies conducted on achievement motivation, it is found that environment-based education (Athman & Monroe, 2004), academic stress and study habits (Tabassum, 2009), study habits (Ergene, 2011), academic engagement (Akpan & Umobong, 2013), academic achievement (Emmanuel et al., 2014; Kumari & Qasim, 2015), e-learning (Kumar & Bajpai, 2015), self concept (Pan & Guha, 2015), and learning outcomes (Jeffrey & Zein, 2017) are related with the achievement motivation of students. There is scarcity of literature related to classroom management styles (authoritarian, laissez-faire, democratic, indifferent) and achievement motivation, thus, it is found that instructor's high enthusiasm (Hotaman & Yuksel-Sahin, 2010), inductive method of teaching (Billing, 2013), interactive style of classroom management (Asgari et al., 2016), proper learning environment and continued positive reinforcement (Elshehy, 2017), good relationships with teachers (Chouinard et al., 2017), and positive

classroom climate (Sutha & Shirlin, 2017) enhance students' achievement motivation. Teachers' goals and behaviours influence the achievement motivation of students (Barni et al., 2018) and authoritative teaching style increases students' motivation (Aldhafri & Alrajhi, 2014). The studies focusing on credibility and achievement motivation are in shortage as most of the studies are concerned with credibility and motivation. Therefore, it is found that teacher credibility is positively related with students' motivation to learn (Frymier & Thompson, 1992; Zhang, 2009), enhances students' motivation (Teven & McCroskey, 1997; Pogue & Ahyun, 2006), and is a very important factor to affect the students' motivation and learning (Pishghadam et al., 2018). Few studies have been found focusing on institutional support (academic support, non-academic support, institutional facilities) and achievement motivation. Hence, it is found from the review of literature that condition of the facility has impact on the motivation of students (Edwards, 2006), physical facilities and level of motivation are related with each other (Akomolafe & Adesua, 2016), teacher and peer emotional support of the school environment influence the achievement motivation (Wang & Eccles, 2013), instrumental support is strongly related to motivational constructs (Federici & Skaalvik, 2014), and students with good school environment are better in their achievement motivation (Rao & Reddy, 2016). The gap in the existing literature is quite clear from the above discussion as there is a dearth of research studies related to achievement motivation and classroom management styles; achievement motivation and credibility of school teachers; and achievement motivation and institutional support.

It is the need of the hour to develop and enhance the leadership skills among students, so that they can contribute to the society's economic, social and political development. Leadership development is studied as a dependent variable in the present study. It is found from the previous research studies conducted on leadership development that students perceive interpersonal relations and management of self as the stronger leadership skills (McKinley et al., 1993; Gordon, 1994), achievement as the important leadership skill followed by problem solving (Layfield et al., 2000), problem-based, real-life, and experiential learning opportunities as meaningful as these lead to leadership development (Simone, 2012), and commitment as the highest value of leadership development (Kovar, 2014). Other findings indicate that

numbers of hours spent participating in the student organizations (Astin, 1997), leadership training (Dugan & Komives, 2007), on-campus environment (Salisbury et al., 2012), mentoring for leadership empowerment and personal development (Campbell et al., 2012), and involvement in extracurricular activities (Foreman & Retallick, 2012) contribute positively to the leadership development of students. It has been also found that leadership skills improve the academic performance of students (Pascarella & Terenzini, 2005). Very few research studies have been found focusing on classroom management styles (authoritarian, laissez-faire, democratic, indifferent) and leadership development. From the review of literature, it is found that authoritative style produces socially competent and responsible students (Wenning, 2002), controlling teachers foster consciousness of self and autonomous teachers develop greater self-efficacy and confidence (Chang, 2012), and authoritarian classroom management style highly influences leadership development (Chamundeswari, 2013). There is a lack of research related to credibility of teachers and leadership development; and institutional support and leadership development.

Thus, the present study will help to answer some of the questions that arise in the mind of the researcher that which classroom management styles have positive impact on the achievement motivation and leadership development among students? Which classroom management styles have negative impact on the achievement motivation and leadership development of students? What type of classroom management styles should be adopted for maximizing students' achievement motivation and leadership development? How does teacher credibility impact students' achievement motivation and leadership development? Which type of institutional support should be helpful for students' achievement motivation and leadership development? What type of actions can be taken up at the institutional level for improving students' achievement motivation and leadership development? What is the relationship among classroom management styles, credibility of teachers and institutional support? What is the relationship between students' achievement motivation and leadership development?

As teacher education is an area which produces teachers, this study will help while considering the criteria of effective and good classroom management styles, maintaining credibility of teachers and adequate institutional support provided to the

students, and this can also be taught to student teachers when they undergo teacher training programmes. Teacher education curriculum and programmes may be revised in order to train teachers to use the strategies of effective classroom management for developing achievement motivation and leadership development among students. School administrators, principals, management bodies can be guided to train their teachers to adopt effective classroom management styles and maintain their credibility, and to provide good institutional support to maximise students' learning outcomes. Apart from this, it is surveyed through literature that no such study has been done in Indian settings specifically in Punjab. The school sector in Punjab is governed in largely three types i.e. government, private and aided schools. The environment and operational mechanism in these different systems differ significantly (Lenka, Chandra, & Gupta, 2015). Thus, one of the major variables in terms of the environment/organisational climate of the institutions is the school type which differs in institutional support and greatly influences classroom management style and credibility of teachers. Students are the future of our nation. The whole responsibility of the society lies in the hands of the students who gradually will become the contributory and productive members of the society. As we are living in the modernised and globalised world, it is necessary to develop leadership abilities among students so that they can lead the family, society and country successfully, and to encourage achievement motivation among them. Therefore, the present research is a new effort to bring into focus the importance of the relations among classroom management styles, credibility of school teachers, institutional support, achievement motivation and leadership development in the Indian context.

2.7 STATEMENT OF THE PROBLEM

Owing to the above significance of the problem, the present study is entitled as: **IMPACT OF CLASSROOM MANAGEMENT STYLES, CREDIBILITY OF SCHOOL TEACHERS AND INSTITUTIONAL SUPPORT ON THE ACHIEVEMENT MOTIVATION AND LEADERSHIP DEVELOPMENT AMONG SECONDARY SCHOOL STUDENTS**

2.8 OPERATIONAL DEFINITION OF THE TERMS USED

CLASSROOM MANAGEMENT STYLES

Classroom management styles are those styles that determine students' learning in the classroom. These styles influence teachers' usage and ability to utilize resources, achieve instructional objectives and influence students' actions and behaviour. In the present study, classroom management styles have been operationally defined and classified as the "authoritarian, laissez-faire, democratic and indifferent classroom management styles" which are employed by the teachers. For each classroom management style, four dimensions have been conceptualised i.e. classroom discipline, classroom learning environment, teacher-student relationship and establishment of rules.

CREDIBILITY OF SCHOOL TEACHERS

Teacher credibility is the ability of the teacher to persuade the students in the course that he is a competent teacher (McCroskey et al., 1974). In the present study credibility of school teachers are studied in terms of their competence (the extent of their qualification, expertness, intelligence, and authoritativeness), trustworthiness (the extent to which teachers are perceived as honest by students) and perceived caring or goodwill (the extent to which teachers recognize students' values, well-being, and interests or intent toward the receiver) as identified by McCroskey and Teven (1999).

INSTITUTIONAL SUPPORT

Institutional support is the policies and practices which enable students to persist in the institution. In the present study, institutional support is studied in terms of students' perception of the academic support (academic advising and learning support), non-academic support (informational support and care and encouragement) and institutional facilities (learning environment, basic infrastructure and extended facilities) provided by their schools.

ACHIEVEMENT MOTIVATION

In the present study, achievement motivation is defined as the need to perform well and strive to get success and it is "an individual's constant pursuit to

achieve excellence” (McClelland, 1961). It is “the extent to which people differ in their need to strive for attaining rewards including physical satisfaction, praise from others and feelings of personal mastery” (McClelland, 1985). It is the “comparison of performances with others and against certain standard activities” (Atkinson, 1964) and it shows the tendency for achieving certain goals (Atkinson & Feather, 1966).

LEADERSHIP DEVELOPMENT

Leadership development refers to the activities that enhance the “quality of leadership within students”. It involves the development of those qualities and skills through which a person leads the group, communicates convincingly, and instils confidence in others. In the present study, social change model (HERI, 1996) of leadership development is employed which is made up of “consciousness of self, congruence, commitment, collaboration, common purpose, controversy with civility, citizenship and change” values of leadership development, used to develop leadership for achieving the ultimate objective of social change.

SCHOOL SIZE

In the present study, school size means the total number of students studying in a school. The school size has been classified as large size and small size as per the students studying in the school. A school having more than 800 students is classified as large size and a school having less than 800 students is classified as small size.

SUBJECT OF TEACHING

In the present study, subject of teaching means English, Mathematics and Science subjects. The classroom management styles of teachers teaching English, Mathematics and Science subjects are considered in the study.

TYPE OF FAMILY

Type of family has been classified as nuclear family which comprises father, mother and their children and joint family which comprises father, mother and their children, and grandparents or an aunt, an uncle and cousins.

FAMILY SIZE

In the present study, family size is the total number of members of a family and it varies from family to family irrespective of the type of family.

2.9 DELIMITATIONS

The present study is delimited to the following areas:

- 1) It is delimited to secondary school students studying in class 10th in government and private schools in Punjab.
- 2) It is delimited to students studying in the schools affiliated to Punjab School Education Board (PSEB) and Central Board of Secondary Education (CBSE).
- 3) It is delimited to English, Mathematics and Science teachers for classroom management styles.

2.10 OBJECTIVES OF THE STUDY

The present study has been designed to achieve the following objectives:

- 1) To compare the classroom management styles of teachers w.r.t (i) type of school; (ii) school board; (iii) gender of the teacher; (iv) subject of teaching; (v) school size of secondary school students.
- 2) To compare the credibility of teachers w.r.t (i) type of school; (ii) gender; (iii) school board; (iv) gender of the teacher; (v) school size; (vi) subject of teaching; (vii) region of secondary school students.
- 3) To compare the institutional support provided to students w.r.t (i) gender; (ii) type of school; (iii) school board; (iv) school size; (v) region of secondary school students.
- 4) To compare the achievement motivation and leadership development w.r.t (i) type of school; (ii) school board; (iii) type of family; (iv) gender; (v) school size; (vi) locale; (vii) region; (viii) family size of secondary school students.
- 5) To study the inter-relationship between (i) classroom management styles and institutional support provided to the students; (ii) credibility of teachers and

institutional support provided to the students; (iii) classroom management styles and credibility of teachers.

- 6) To study the inter-relationship between achievement motivation of students, and (i) classroom management styles; (ii) credibility of teachers; (iii) institutional support.
- 7) To study the inter-relationship between leadership development of students, and (i) classroom management styles; (ii) credibility of teachers; (iii) institutional support.
- 8) To study the inter-relationship between achievement motivation and leadership development of students.
- 9) To predict the role of classroom management styles, credibility of teachers and institutional support on the achievement motivation of students.
- 10) To predict the role of classroom management styles, credibility of teachers and institutional support on the leadership development of students.

2.11 HYPOTHESES

- 1) There is no significant association of classroom management styles of teachers and (i) type of school; (ii) school board; (iii) gender of the teacher; (iv) subject of teaching; (v) school size of secondary school students.
- 2) a. There is no significant difference in the credibility of teachers w.r.t (i) type of school; (ii) gender; (iii) school board; (iv) gender of the teacher; (v) school size of secondary school students.
- 2) b. There is no significant difference in the credibility of teachers of secondary school students w.r.t to subject of teaching.
- 2) c. There is no significant difference in the credibility of teachers of secondary school students w.r.t to region.
- 3) a. There is no significant difference in the institutional support w.r.t (i) gender; (ii) type of school; (iii) school board; (iv) school size of secondary school students.

- 3) b. There is no significant difference in the institutional support provided to secondary school students w.r.t to region.
- 4) a. There is no significant difference in the achievement motivation w.r.t (i) type of school; (ii) school board; (iii) type of family; (iv) gender; (v) school size; (vi) locale of secondary school students.
- 4) b. There is no significant difference in the achievement motivation of secondary school students w.r.t to region.
- 4) c. There is no significant difference in the achievement motivation of secondary school students w.r.t to family size.
- 4) d. There is no significant difference in the leadership development w.r.t (i) type of school; (ii) school board; (iii) type of family; (iv) gender; (v) school size; (vi) locale of secondary school students.
- 4) e. There is no significant difference in the leadership development of secondary school students w.r.t to region.
- 4) f. There is no significant difference in the leadership development of secondary school students w.r.t to family size.
- 5) a. There is no significant correlation between classroom management styles and institutional support provided to students in secondary schools.
- 5) b. There is no significant correlation between credibility of teachers and institutional support provided to students in secondary schools.
- 5) c. There is no significant correlation between classroom management styles and credibility of teachers.
- 6) There is no significant correlation between achievement motivation of students, and (i) classroom management styles; (ii) credibility of teachers; (iii) institutional support.
- 7) There is no significant correlation between leadership development of students, and (i) classroom management styles; (ii) credibility of teachers; (iii) institutional support.

- 8) There is no significant correlation between achievement motivation and leadership development of students in secondary schools.
- 9) a. There is no significant impact of authoritarian classroom management style, credibility of teachers and institutional support on the achievement motivation of students.
- 9) b. There is no significant impact of laissez-faire classroom management style, credibility of teachers and institutional support on the achievement motivation of students.
- 9) c. There is no significant impact of democratic classroom management style, credibility of teachers and institutional support on the achievement motivation of students.
- 9) d. There is no significant impact of indifferent classroom management style, credibility of teachers and institutional support on the achievement motivation of students.
- 10) a. There is no significant impact of authoritarian classroom management style, credibility of teachers and institutional support on the leadership development of students.
- 10) b. There is no significant impact of laissez-faire classroom management style, credibility of teachers and institutional support on the leadership development of students.
- 10) c. There is no significant impact of democratic classroom management style, credibility of teachers and institutional support on the leadership development of students.
- 10) d. There is no significant impact of indifferent classroom management style, credibility of teachers and institutional support on the leadership development of students.

CHAPTER – III

RESEARCH METHODOLOGY

In the preceding chapters, the problem of the study, objectives, hypotheses, review of related literature were discussed. The present chapter deals with the method of study which covers sample, design of the study, procedure, tool development, tool selection, tool validation and statistical techniques used for the analysis of data.

3.1 RESEARCH METHOD AND SAMPLING

The research was conducted with the help of the descriptive survey method of research. The descriptive survey is a quantitative method, with the help of which investigator can collect quantified information of the population by using the sample of that population.

3.1.1 POPULATION

The population for the present study was 10th class students of Punjab, enrolled in the government and private schools affiliated to Punjab School Education Board (PSEB) and Central Board of Secondary Education (CBSE) in the academic year of 2017-2018. The total number of 10th class students enrolled in PSEB government and private schools was 336539 (Computer Cell, PSEB, Mohali). The total number of 10th class students enrolled in CBSE government and private schools in Panchkula region was 242906 (Hindustan Times). The distribution of the districts of Punjab has been presented in Table 3.1.

TABLE 3.1: DISTRIBUTION OF THE DISTRICTS OF PUNJAB

S. No	Majha	Doaba	Malwa
1	Pathankot	Hoshiarpur	Ferozpur
2	Gurdaspur	Kapurthala	Bathinda
3	Amritsar	Jalandhar	Ludhiana
4	Tarn Taran	Nawanshahr	Moga
5		Rupnagar	Barnala
6			Mansa
7			Faridkot
8			Fatehgarh Sahib
9			Sangrur
10			Sri Muktsar Sahib
11			Mohali
12			Fazilka
13			Patiala

The distribution of the total number of PSEB and CBSE schools in Punjab has been presented in Table 3.2.

TABLE 3.2: DISTRIBUTION OF PSEB AND CBSE SCHOOLS IN PUNJAB

Schools	Total Number
PSEB Secondary and Senior Secondary Government schools	4135
PSEB Secondary and Senior Secondary Private schools	3910
CBSE Secondary and Senior Secondary Government schools	111
CBSE Secondary and Senior Secondary Private schools	1267

3.1.2 SAMPLE SIZE

In order to select the statistically significant sample size for the present study, online sample calculator was used which considers the following values viz. population, confidence level and margin of error. This online calculator was based on the following formula developed by Krejcie and Morgan (1970).

$$S = \frac{X^2 NP(1-P)}{d^2 (N-1) + X^2 P(1-P)}$$

S is the required sample size.

X^2 is the table value of chi-square for 1 degree of freedom at the desired confidence level (0.05 = 3.841).

N is the population size.

P is the population proportion (assumed to be 0.50 since this would provide the maximum sample size).

d is the degree of accuracy expressed as proportion (error margin) (0.05).

Population of 10th class students from PSEB government and private schools = 336539, Confidence level = 95%, Error margin = 5 and calculated sample size = 384. Population of 10th class students from CBSE government and private schools = 242906, Confidence level = 95%, Error margin = 5 and calculated sample size = 384. However, the actual collected data from PSEB students was 540 and from CBSE students, it was 540. Keeping in view the scope of the study, the convenience sampling technique was used to collect the data from three regions of Punjab i.e. Majha, Malwa and Doaba. The data was collected from 10th class students of government and private schools affiliated to PSEB and CBSE board from the three regions of Punjab. Sampling was done in three stages. At the first stage, two districts each from Majha, Malwa, Doaba regions were selected through purposive based on the size, population and development of the districts. The districts selected on the basis of above criteria were i.e. Majha (Amritsar, Gurdaspur), Malwa (Ludhiana, Patiala) and Doaba (Jalandhar, Kapurthala). At the second stage, in total thirty six schools were selected to collect the data in which six PSEB and six CBSE board schools were selected each from the three regions of Punjab. Care was taken to select 3 government and 3 private schools each from the six PSEB and CBSE board affiliated schools. In the third stage, it was finally from each school thirty students were selected from 10th class. Further, the data was collected by visiting the schools. Due permission has been taken from the respective authorities. Investigator personally visited various places for getting questionnaires filled. Thus, in total 1080 students (540 from PSEB and 540 from CBSE) filled the tools booklets on Classroom Management Styles, Credibility of Teachers, Institutional Support, Achievement Motivation and Leadership Development. After data screening, the incomplete forms were removed from the dataset and finally, the data of 1071 students of 10th class were considered for data analysis.

The distribution of PSEB and CBSE schools in different districts of Punjab has been presented in Table 3.3.

TABLE 3.3: DISTRICT WISE DISTRIBUTION OF SCHOOLS IN PUNJAB

PSEB SCHOOLS						
Region	Type of school	Government		Private		Total No. of schools
	District	High/ Secondary	Senior Secondary	High/ Secondary	Senior Secondary	
Doaba	Jalandhar	147	194	102	128	571
	Kapurthala	72	80	51	60	263
Malwa	Ludhiana	169	229	309	389	1096
	Patiala	102	126	131	170	529
Majha	Amritsar	135	151	132	159	577
	Gurdaspur	99	146	130	157	532
CBSE SCHOOLS						
Region	Type of school	Government		Private		Total No. of schools
	District	Secondary	Senior Secondary	Secondary	Senior Secondary	
Doaba	Jalandhar	-	9	14	80	103
	Kapurthala	1	3	13	39	56
Malwa	Ludhiana	-	4	30	122	156
	Patiala	-	5	32	77	114
Majha	Amritsar	-	4	16	65	85
	Gurdaspur	-	4	40	52	96

The detailed list of PSEB (government & private) and CBSE (government & private) schools selected for the collection of data in Majha, Malwa and Doaba regions of Punjab is presented in the Table 3.4.

TABLE 3.4: LIST OF SCHOOLS FROM THREE REGIONS OF PUNJAB

Region	District	PSEB/ CBSE	GOVT / PVT	Name of School
Majha	Amritsar	PSEB	GOVT	Govt. Sr. Sec. School (Boys), Verka
		PSEB	PVT	Baba Deep Singh Day Boarding School, Chativind
		PSEB	PVT	G.S.G.S Tung Memorial Public School, Guru Nanak Avenue, Majitha Road
		CBSE	GOVT	K.V. No.3, New Cantt
		CBSE	GOVT	K.V. No.1, Amritsar Cantt
		CBSE	PVT	Modern High School, Mata Kaulan Marg
	Gurdaspur	PSEB	GOVT	Govt. Model Sr. Sec School (Boys)
		PSEB	GOVT	Govt. Girls Sr. Sec School
		PSEB	PVT	Baba Sri Chand Sr. Sec. School Girls, Gahlari
		CBSE	GOVT	K.V. Shikar, D. B. N.
		CBSE	PVT	Baba Banda Singh Bahadur Public School, Mullianwal (Gsp.)
CBSE		PVT	Sri Guru Harkrishan International School, Behrampur Road	
Malwa	Ludhiana	PSEB	GOVT	Chanan Devi G.G.H. School, Salem Tabri
		PSEB	PVT	S.K.S.K Educational Institute, Salem Tabri
		PSEB	PVT	Dhir Bal Vidya Mandir School, Upkar Nagar, Civil Lines
		CBSE	GOVT	K.V. No.1, Air Force Station Halwara
		CBSE	GOVT	K.V. No.2, Air Force Station Halwara
		CBSE	PVT	Guru Nanak Public School, Sarabha Nagar
	Patiala	PSEB	GOVT	Govt. Sr. Sec School, Tripuri
		PSEB	GOVT	Govt. Multipurpose Sr. Sec. School, Passi Road
		PSEB	PVT	Prabhjot Modern High School, New Grain Market
		CBSE	GOVT	K.V. No.1, Patiala Cantt
		CBSE	PVT	Budha Dal Public School, Lower Mall
		CBSE	PVT	Modern Sr. Sec. School, G. D. N. S. Road
Doaba	Jalandhar	PSEB	GOVT	Govt. Girls Sr. Sec. School, Nehru Garden
		PSEB	GOVT	Govt. Girls Sr. Sec. School, Adarsh Nagar
		PSEB	GOVT	Govt. High School, Basti Bawa Khel
		PSEB	PVT	Guru Harkrishan High Public School, Kpt. Road, B. Bawa Khel
		PSEB	PVT	D. P. Dada S. D. Public School, Mai Hiran Gate
		CBSE	GOVT	K.V. No. 1, Jalandhar Cantt
		CBSE	GOVT	K.V. No. 3, Jalandhar Cantt
		CBSE	GOVT	K.V. No. 4, Jalandhar Cantt
		CBSE	PVT	Cambridge International School For Girls, Urban Estate, P-II
		CBSE	PVT	Swami Mohan Dass Model School, Baba Mohan Dass Nagar, G.T. Road, Bye Pass
		CBSE	PVT	M.G.N Public School, Urban Estate-II
		Kapurthala	PSEB	PVT

The number of students from each school in the Majha region of Punjab is presented in Table 3.5.

TABLE 3.5: DISTRIBUTION OF THE SAMPLE FROM DIFFERENT SCHOOLS OF MAJHA REGION OF PUNJAB

S. No.	Name of School	PSEB		CBSE		Total
		GOVT	PVT	GOVT	PVT	
1	Govt. Sr. Sec. School (Boys), Verka, Amritsar	30				30
2	Baba Deep Singh Day Boarding School, Chativind, Amritsar		30			30
3	G.S.G.S Tung Memorial Public School, Guru Nanak Avenue, Majitha Road, Amritsar		30			30
4	K.V. No.3, New Cantt, Amritsar			30		30
5	K.V. No.1, Amritsar Cantt, Amritsar			30		30
6	Modern High School, Mata Kaulan Marg, Amritsar				30	30
7	Govt. Model Sr. Sec. School (Boys), Gurdaspur	30				30
8	Govt. Girls Sr. Sec. School, Gurdaspur	30				30
9	Baba Sri Chand Sr. Sec. School Girls, Gahlari, Gurdaspur		30			30
10	K.V. Shikar, D. B. N., Gurdaspur			30		30
11	Baba Banda Singh Bahadur Public School, Mullianwal (Gsp.), Gurdaspur				30	30
12	Sri Guru Harkrishan International School, Behrampur Road, Gurdaspur				30	30
	Total	90	90	90	90	360

The number of students from each school in the Malwa region of Punjab is presented in Table 3.6.

TABLE 3.6: DISTRIBUTION OF THE SAMPLE FROM DIFFERENT SCHOOLS OF MALWA REGION OF PUNJAB

S. No.	Name of School	PSEB		CBSE		Total
		GOVT	PVT	GOVT	PVT	
1	Chanan Devi G.G.H. School, Salem Tabri, Ludhiana	25				25
2	S.K.S.K Educational Institute, Salem Tabri, Ludhiana		30			30
3	Dhir Bal Vidya Mandir School, Upkar Nagar, Civil Lines, Ludhiana		30			30
4	K.V. No.1, Air Force Station Halwara, Ludhiana			30		30
5	K.V. No.2, Air Force Station Halwara, Ludhiana			30		30
6	Guru Nanak Public School, Sarabha Nagar, Ludhiana				29	29
7	Govt. Sr. Sec. School, Tripuri, Patiala	27				27
8	Govt. Multipurpose Sr. Sec. School, Passi Road, Patiala	30				30
9	Prabhjot Modern High School, New Grain Market, Patiala		30			30
10	K.V. No.1, Patiala Cantt, Patiala			30		30
11	Budha Dal Public School, Lower Mall, Patiala				30	30
12	Modern Sr. Sec. School, G. D. N. S. Road, Patiala				30	30
	Total	82	90	90	89	351

The number of students from each school in the Doaba region of Punjab is presented in Table 3.7.

TABLE 3.7: DISTRIBUTION OF THE SAMPLE FROM DIFFERENT SCHOOLS OF DOABA REGION OF PUNJAB

S. No.	Name of School	PSEB		CBSE		Total
		GOVT	PVT	GOVT	PVT	
1	Govt. Girls Sr. Sec. School, Nehru Garden, Jalandhar	30				30
2	Govt. Girls Sr. Sec. School, Adarsh Nagar, Jalandhar	30				30
3	Govt. High School, Basti Bawa Khel, Jalandhar	30				30
4	Guru Harkrishan High Public School, Kpt. Road, B. Bawa Khel, Jalandhar		30			30
5	D. P. Dada S. D. Public School, Mai Hiran Gate, Jalandhar		30			30
6	K.V. No. 1, Jalandhar Cantt, Jalandhar			30		30
7	K.V. No. 3, Jalandhar Cantt, Jalandhar			30		30
8	K.V. No. 4, Jalandhar Cantt, Jalandhar			30		30
9	Cambridge International School For Girls, Urban Estate, P-II, Jalandhar				30	30
10	Swami Mohan Dass Model School, Baba Mohan Dass Nagar, G.T. Road, Bye Pass, Jalandhar				30	30
11	M.G.N. Public School, Urban Estate-II, Jalandhar				30	30
12	Amar Nath Hindu High School, Shanti Nagar, Kapurthala		30			30
	Total	90	90	90	90	360

3.1.3 SAMPLING DESIGN

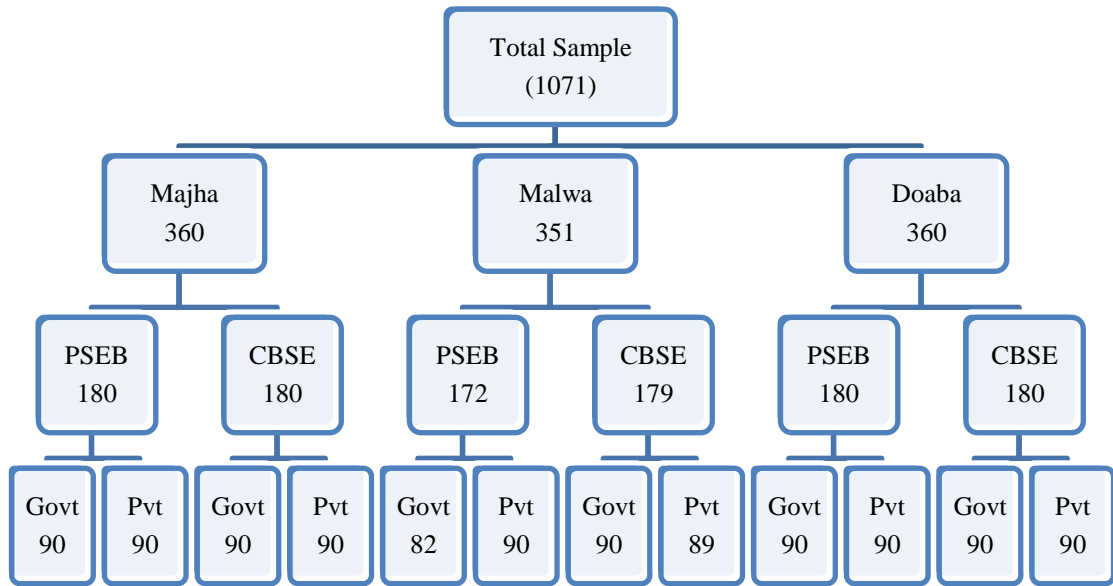


FIGURE 3.1: SYSTEMATIC REPRESENTATION OF SAMPLE BASED ON REGION, SCHOOL BOARD AND SCHOOL TYPE

3.1.4 PROCEDURE

The investigator took 2 districts each from the Majha (Amritsar & Gurdaspur), Malwa (Ludhiana & Patiala) and Doaba (Jalandhar & Kapurthala) regions, thus, in total 6 districts out of the 22 districts of Punjab were selected through purposive based on the size, population and development of the districts. Due to the non cooperation of the principals of schools in Kapurthala district, more schools were selected from Jalandhar. In the present study, 36 schools which include 18 PSEB (9 Government & 9 Private) and 18 CBSE (9 Government & 9 Private) schools have been selected. From each school, thirty students were selected from 10th class. The investigator personally visited the classes for getting questionnaires filled. Data was collected on hard copies of the tools after getting permission from the principals of schools. Thus, total 1080 students of 10th class filled the questionnaire on hard copies. After removing 9 incomplete forms, a data of 1071 students were considered for data analysis. Although the sample was selected on the basis of region (Majha, Doaba & Malwa), school board (PSEB & CBSE) and type of school (Government & Private) of secondary students, the analysis of the data was

done on the basis of other demographic variables also i.e. gender, locale, type of family and family size of the students, and school size, and gender of the teacher, subject of teaching and classroom management style. No database is available where school strength can be figure out. Hence, school size could not be considered for the selection of sample, but it was included for the analysis of the results. Thus, the collected data have been tabulated and subjected to statistical analysis and interpretation as per the hypotheses.

3.2 RESEARCH DESIGN OF THE STUDY

Following research designs i.e. Chi square association design, t-test design, One Way ANOVA design, Correlational design, and Regression analysis design have been employed to conduct the analysis. The research designs are further explained into following parts:

3.2.1 CHI SQUARE ASSOCIATION DESIGN

Chi Square association design has been employed on the scores of classroom management styles of teachers in order to examine the association of four classroom management styles of teachers, and type of school, school board, gender of the teacher, teacher's subject of teaching, school size of secondary school students.

3.2.2 t-TEST DESIGN

- a) t-Test has been employed on the scores of different dimensions of credibility of teachers to find out the significant differences due to type of school, gender of the students, school board, gender of the teacher and school size.
- b) t-Test has been employed on the scores of different dimensions of institutional support to find out the significant differences due to gender of the students, type of school, school board and school size.
- c) t-Test has been employed on the scores of different dimensions of achievement motivation to find out the significant differences due to type of school, school board, type of family, gender of the students, school size and residential address.

- d) t-Test has been employed on the scores of different dimensions of leadership development to find out the significant differences due to type of school, school board, gender of the students, residential address, type of family and school size.

3.2.3 ONE WAY ANOVA DESIGN

- a) One Way ANOVA has been employed on the scores of different dimensions of credibility of teachers to find out the significant differences due to subject of teaching and region.
- b) One Way ANOVA has been employed on the scores of different dimensions of institutional support to find out the significant differences due to region.
- c) One Way ANOVA has been employed on the scores of different dimensions of achievement motivation to find out the significant differences due to region and family size.
- d) One Way ANOVA has been employed on the scores of different dimensions of leadership development to find out the significant differences due to region and family size.

3.2.4 CORRELATIONAL RESEARCH DESIGN

- a) Correlation research design has been employed on the scores of classroom management styles and institutional support.
- b) Correlation research design has been employed on the scores of credibility of teachers and institutional support.
- c) Correlation research design has been employed on the scores classroom management styles and credibility of teachers.
- d) Correlation research design has been employed on the scores classroom management styles, credibility of teachers, institutional support and achievement motivation.
- e) Correlation research design has been employed on the scores classroom management styles, credibility of teachers, institutional support and leadership development.

- f) Correlation research design has been employed on the scores of achievement motivation and leadership development.

3.2.5 REGRESSION ANALYSIS DESIGN

- a) Regression analysis has been employed to predict the outcome variable achievement motivation of students due to classroom management styles, credibility of teachers and institutional support as criterion variables.
- b) Regression analysis has been employed to predict the outcome variable leadership development of students due to classroom management styles, credibility of teachers and institutional support as criterion variables.

3.3 DEVELOPMENT AND DESCRIPTION OF THE TOOLS

3.3.1 TOOLS CONSTRUCTED AND STANDARDIZED

The following tools have been constructed, standardized and administered to conduct the present study:

3.3.1.1 Classroom Management Styles Scale

3.3.1.2 Institutional Support Scale

3.3.1.1 CLASSROOM MANAGEMENT STYLES SCALE

In the present study, Classroom Management Styles Scale was self constructed and standardized for secondary school students of Punjab to assess their perceptions of their teachers' authoritarian, democratic, laissez-faire and indifferent classroom management styles. The development and validation of the scale was carried out by adopting highly reliable and valid scale development process. This scale has 33 items related to the four styles of classroom management. This scale can be used by researchers, classroom managers, teachers and psychologists. The results of this scale can help the teachers to know and be aware about students' perspectives so that teaching and learning can be planned for the better, and to adopt and transact the appropriate classroom management styles to enhance the learning and positive outcomes for students. The development and validation process of the scale is given below.

- **Need for Scale Development**

There are few studies related to the development and adaptation of classroom management styles scale which are presented in the Table 3.8. To study the perceptions of teachers about their classroom management styles, Yasar (2008) developed Classroom Management Inventory for primary school teachers in Kastamonu, Chellal (2013) developed Classroom Management Styles Questionnaire for International school teachers in Bangkok, and Chamundeswari (2013) developed Classroom Management Styles Inventory for secondary school teachers in India. Further for studying teachers' perceptions of their classroom management styles, Pektas and Saygili (2014) used The Classroom Management Styles of Teachers Scale by Terzi (2001) for public and private school teachers in Turkey, Cadeau (2008) adapted Teacher Profile by Kim (2003), Yilmaz (2009) employed Classroom Management Profile Scale by Ekici (2004) for primary school teachers in Kutahya city centre, and Sadik and Sadik (2014) used Classroom Management Profile (Santrock, 1996) for pre-service teachers. Classroom Management Profile (Center for Adolescent Studies, 1996) examined the perceptions of teachers about their styles and this profile has been employed by Hoots (2014) who reported low reliability of the same. Further, it was used by Skvarla (2008), UNESCO (2015), Dunbar (2004), Jones (2001) and Guangco (2008) but none have reported the validation evidence of this tool.

In order to study the perceptions of school students of their teachers' teaching styles, Chen (2008) developed "the Junior High School Teacher's Teaching Style Questionnaire" in Taiwan context. This questionnaire was employed by Chang (2010) in Taiwan and by Munir and Rehman (2016) in Pakistan to study school students' perceptions. Further, Aldhafri and Alrajhi (2014) developed Students' Perceptions of Teaching Style Scale (SPTSS) in Oman. Further, Ali and Badah (2014) developed Questionnaire on Management Styles of the Classroom for studying the perceptions of College students of their teachers' management styles in Jordan.

It is clear after reviewing the literature that there are few researches which were related to the development and adaptation of classroom management styles

scale. The maximum developed and adapted scales measured teachers' perceptions of their own classroom management styles, and they were made and employed in foreign contexts. Some studies have reported low reliability of tools. Many of the studies have lacked the process of standardization of tools of measurement except the two studies i.e. Chen (2008) who developed "the Junior High School Teacher's Teaching Style Questionnaire" in Taiwan context to study the perceptions of school students of their teachers' teaching styles and Yasar (2008) who developed Classroom Management Inventory for primary school teachers in Kastamonu. There is only one study found in India which is carried out by Chamundeswari (2013) who developed Classroom Management Styles Inventory and that was also for measuring secondary school teachers' perceptions of their classroom management styles. Further, there is no classroom management styles scale specific to Indian context. Therefore, there is a dire need to develop classroom management styles scale which is appropriate for Indian context for measuring secondary schools students' perceptions of their teachers' classroom management styles.

TABLE 3.8: REFERENCE FOR THE CONSTRUCTION OF CLASSROOM MANAGEMENT STYLES SCALE

S. No.	Author(s) & Year	Sample	Tool	Dimensions
1	Chen (2008)	1587 Junior high school students, Taiwan	The Junior High School Teacher's Teaching Style Questionnaire	Authoritarian, Democratic, Laissez-faire, Indifferent
2	Chang (2010)	95 Junior high school students (Male-53 Female-46), Taiwan	The Junior High School Teacher's Teaching Style Questionnaire by Chen (2008)	Authoritarian, Democratic, Laissez-faire, Indifferent
3	Munir & Rehman (2016)	560 Students (Boys-280 Girls-280), Pakistan	The Junior High School Teacher's Teaching Style Questionnaire by Chen(2008)	Authoritarian, Democratic, Laissez-faire, Indifferent
4	Aldhafri & Alrajhi (2014)	425 8 th Grade students (Male- 202 Female- 223), Oman	Students' Perceptions of Teaching Style Scale (SPTSS)	Authoritative, Authoritarian
5	Ali & Badah (2014)	400 Female students, B.A., Alia University College, Jordan	Questionnaire on Management Styles of the Classroom	Traditional, Authoritarian, Democratic, Leisurely

Contd.

S. No.	Author(s) & Year	Sample	Tool	Dimensions
6	Pektas & Saygili (2014)	505 Public & private school teachers, Turkey	The Classroom Management Styles of Teachers Scale by Terzi (2001)	Autocratic, Democratic, Disinterested
7	Chellal (2013)	178 International school teachers, Bangkok	Classroom Management Styles questionnaire	Authoritative, Authoritarian, Indulgent, Permissive
8	Chamundeswari (2013)	90 Female secondary school teachers, India	Classroom Management Styles Inventory	Authoritative, Authoritarian, Indulgent, Permissive, Contingent
9	Cadeau (2008)	Teachers	Teacher Profile by Kim (2003)	Authoritarian, Authoritative, Laissez-faire, Indifferent
10	Yilmaz (2009)	200 Primary school teachers, Kutahya city centre	Classroom Management Profile Scale by Ekici (2004)	Authoritarian, Authoritative, Laissez-faire, Indifferent
11	Yasar (2008)	265 Primary school teachers (Female-157, Male-108), Kastamonu	Classroom Management Inventory	Student-centered, Teacher-centered
12	Sadik & Sadik (2014)	1238 pre-service teachers	Classroom Management Profile (Santrock, 1996)	Authoritarian, Authoritative, Laissez-faire, Indifferent
13	Hoots (2014)	94 Teachers (Male-8, Female-86), Northern and central Illinois	Classroom Management Profile (Center for Adolescent Studies, 1996)	Authoritarian, Authoritative, Laissez-faire, Indifferent
14	Skvarla (2008)	44 High school teachers (Female-33, Male-11)	Classroom Management Profile (Center for Adolescent Studies, 1996)	Authoritarian, Authoritative, Laissez-faire, Indifferent
15	UNESCO (2015), Dunbar (2004), Jones (2001), Guangco (2008)	Teachers	Classroom Management Profile (Center for Adolescent Studies, 1996)	Authoritarian, Authoritative, Laissez-faire, Indifferent

Source: *Authors Findings*

- **Styles and Dimensions of Classroom Management Styles Scale**

The present scale was prepared for secondary school students of Punjab to assess their perceptions of their teacher's "authoritarian, democratic, laissez-faire and indifferent" classroom management styles. For each classroom management style, the items have been prepared considering four dimensions i.e. classroom discipline, classroom learning environment, teacher-student relationship and establishment of rules.

The four types of classroom management styles are given below.

- ❖ **Authoritarian Classroom Management Style:** This style is characterized by various behavioural regulations on students as numerous restrictions are imposed on them. They are not involved in any decision making and concern as the teacher himself establishes all classroom rules to follow a well-structured classroom. They are supposed to follow the directions only which lead to the lack of verbal exchange and practice for the development of communication skills.
- ❖ **Laissez-faire Classroom Management Style:** This style is characterized by few rules and demands on students as their undesirable behaviours are not addressed which lead to the uncontrolled pupil actions. Students have dominant role in the decision and classroom as teacher accepts students' impulses and actions. This style encourages independent learning for students. Such teachers try not to hurt their students' feelings.
- ❖ **Democratic Classroom Management Style:** This style is characterized by firm expectations for student behaviour and learning, and encourages students' participation in the formation of policies and rules. Class-centred environment is created to respond to the various needs of students. Teacher solicits students' opinions and respects their ideas to create a learning environment and works as a as a leader, participant and facilitator.
- ❖ **Indifferent Classroom Management Style:** This style is characterized by the lack of discipline in the classroom. The teacher likely seems not to impose any rule on the students, and shows least interest and involvement in the classroom

gradually leading to very few opportunities for students to practice communication skills. It presents an aloof environment where teacher offers no support and rarely pays attention to the students.

The four dimensions for each classroom management style are given below.

- ❖ **Classroom Discipline:** It includes the plans and approaches employed during instructions to handle the behaviours and attitudes of students (MEG, 2015). It is required for the accomplishment of the teaching-learning process as it helps to create the learning environment by setting limits for students and guiding their behaviour. It is necessary to monitor the progress of students by encouraging the desirable and discouraging the undesirable behaviour of the students, and to maintain classroom standards to minimize disruptions and maximize learning.
- ❖ **Classroom Learning Environment:** It encompasses the culture of a class including how individuals interact with one another and the ways in which teachers may organize an educational setting to facilitate learning. It refers to the classroom interaction in which both teacher and students are involved. It is the careful arrangement and presentation of the stimulus for teaching-learning process which promote students' learning.
- ❖ **Teacher-Student Relationship:** This relationship is defined as the caring and authentic relationship between teacher and the students. It refers to the understanding, respect, support and communication between teacher and students. Teacher-student relationship develops students' behaviour and creates better people for the future. It includes the willingness and interest of teacher and learner for teaching-learning process.
- ❖ **Establishment of Rules:** It refers to the principles/policies which are essential for reaching the expectations and are unavoidable. It regulates the behaviour by clearly defining the expectations of appropriate behaviour. Classroom rules are crucial in teaching-learning process and always tailored around the general policies of the school.

3.3.1.1.1 ITEM SCALING, CONSTRUCTION AND DEVELOPMENT

Before starting construction of the items for the scale, it is important to decide the scaling of the items. Dittrich, Francis, Hatzinger and Katzenbeisser (2007) revealed “Likert scale is an essential scaling in social survey studies, and is a method of collecting attitudinal data”. Therefore in the classroom management styles scale, Likert Scale technique developed by Likert (1932) is used to measure students’ perceptions through the range of responses provided to the statement. Each statement is planned on 5 point Likert Type Scale with “Never”, “Seldom”, “Sometimes”, “Often” and “Always” as alternatives and scored as 1,2,3,4 and 5. All items prepared are positive in nature.

The next step after deciding the scaling of items was the construction of the items. Before item construction there is a great need of extensive survey of literature. Review of literature was made on “classroom management”, “classroom management styles”, “classroom styles” and “management styles in the classroom” etc. The relevant styles and dimensions were selected after reviewing the literature. An initial pool of 65 items was prepared after developing conceptual framework. Help was taken from the studies of Chen (2008) and UNESCO (2015) for the writing of items.

First of all, the initial draft of the scale was shown to three Doctorates, language experts (Assistant Professors) from the Department of English of Lovely Professional University, Punjab for assuring the language of the statements as short, simple, clear, easily understood, unambiguous, and securing appropriate sentence formation and grammar. Next, discussions with experts in the field of Psychology and Education were held with regard to justifying the appropriateness of the selected styles and dimension. So, the initial draft comprising 65 items was shown to the experts belonging to the discipline of Psychology and Teacher Education to establish the face validity and content validity of classroom management styles scale.

- **Validity**

A test is considered valid when it measures what it is supposed or claimed to measure. Alternatively, a test whose performance closely resembles an objectively defined criterion is said to be valid. Both Face validity and Content validity of the Classroom Management Styles Scale was determined based on the opinion of the six subject experts. The list of subject experts is given below.

TABLE 3.9: LIST OF EXPERTS CONTACTED FOR MEASURING FACE VALIDITY AND CONTENT VALIDITY OF CLASSROOM MANAGEMENT STYLES SCALE

S. No.	Name	Designation
1	Dr. K.K. Sharma	Former Pro-Vice-Chancellor and Professor Harmony Philosophy Chair (IASE), Deemed University, Sardarshar, Rajasthan
2	Dr. Kulwinder Singh	Professor, Punjabi University, Patiala
3	Dr. Kuldip Puri	Professor, Panjab University, Chandigarh
4	Dr. Deepa Kauts	Associate Professor, Guru Nanak Dev University, Amritsar
5	Dr. Satvinderpal Kaur	Associate Professor, Panjab University, Chandigarh
6	Dr. Ram Mehar	Associate Professor, Panjab University, Chandigarh

- **Face Validity**

In order to measure the face validity of classroom management styles scale, the remarks of subject experts were considered. On the basis of their opinions, item number 3, 21, 26, 42, 44, 45, 49 (total 7 items) were deleted from the scale. In total 58 items were retained after the initial modification of the tool based on the suggestions of the subject experts.

- **Content Validity**

In order to determine the content validity, classroom management styles scale consisting 58 items was shown to subject experts and their expert viewpoints on quality of items were taken and measured on four point rating which is shown in the table below.

TABLE 3.10: EXPERT VIEWPOINTS ON QUALITY OF ITEMS

Quality of items	Not relevant	Somewhat relevant	Quite relevant	Highly relevant
Rating	1	2	3	4

Based on the judgement of subject experts, content validity index was calculated. The method developed by Lawshe (1975) was applied for measuring content validity. The items having value below 0.8 were rejected. At this step, item number 1, 2, 4, 5, 8, 13, 17, 18, 19, 33, 36, 39, 41, 43, 46, 48, 54, 57, 59, 60, 61, 62, 63, 64 (total 24 items) were deleted from the scale for having poor values. In total 34 items were retained, and Content Validity Index of Classroom Management Styles Scale was found to be 0.91 which shows the content of classroom management styles scale is highly relevant. Item wise Content Validity Index of the retained items was given below in the Table 3.11.

TABLE 3.11: ITEM WISE CONTENT VALIDITY INDEX OF CLASSROOM MANAGEMENT STYLES SCALE

Item No.	ICVI	Item No.	ICVI
6	0.83	30	1
7	0.83	31	1
9	0.83	32	0.83
10	1	34	1
11	0.83	35	1
12	0.83	37	1
14	1	38	0.83
15	0.83	40	0.83
16	1	47	1
20	0.83	50	1
22	0.83	51	1
23	0.83	52	1
24	0.83	53	1
25	0.83	55	0.83
27	0.83	56	1
28	0.83	58	0.83
29	1	65	0.83
ICVI- Item-wise Content Validity Index			

3.3.1.1.2 STANDARDIZATION OF THE SCALE

- **SAMPLE**

In order to standardize the Classroom Management Styles Scale with 34 items, a pilot study was conducted, and the scale thus prepared was put for initial try out. For the pilot study, data was collected from 360 students of 10th class i.e. 180 from government and 180 from private schools affiliated to PSEB and CBSE board in Jalandhar district. Thirty students were selected conveniently from each school. Thus, in total twelve schools were approached. The sample comprised of female (60.6%) and male (39.4%) students. Data was collected on hard copies of the tools after getting permission from the principals of schools. Investigator personally visited the classes for getting questionnaires filled. The data thus collected was entered in excel sheet for the purpose of data analysis.

- **ITEM ANALYSIS**

After pilot study, discrimination index was measured to find out the discriminatory power of 34 items by calculating t-value so that final tool can be constructed. A “Likert-type scale” was used with choices namely “Never”, “Seldom”, “Sometimes”, “Often” and “Always”. The individual scores of 360 students were ranked in the highest to lowest order. Further, 25% of students from the upper group and 25% of students from the lower group were sorted for the calculation of discriminatory power of each of the items of the tool. Next considering each item individually, the number of students was found who answered “Never”, “Seldom”, “Sometimes”, “Often” and “Always” for the upper group and lower group separately. In this way, for all 34 items, the number of students coming under each category “Never, Seldom, Sometimes, Often, Always” was found out for the upper group and lower group separately, and the discrimination index of 34 items were calculated. Only those items were selected whose discrimination index was greater than 1.99 (significant at 0.05 level). All the items possessed more than 1.99 discrimination index, so, no item got deleted at this stage and all the 34 items were retained. Discrimination index of the 34 items of Classroom Management Styles Scale are given in Table 3.12.

**TABLE 3.12: ITEM WISE DISCRIMINATION INDEX OF CLASSROOM MANAGEMENT
STYLES SCALE**

Item No.	Discrimination Index	Remarks	Item No.	Discrimination Index	Remarks
6	13.24	Accepted	30	26.91	Accepted
7	24.08	Accepted	31	3.56	Accepted
9	16.76	Accepted	32	13.76	Accepted
10	21.65	Accepted	34	7.35	Accepted
11	5.93	Accepted	35	12.97	Accepted
12	14.99	Accepted	37	11.93	Accepted
14	6.53	Accepted	38	11.49	Accepted
15	6.75	Accepted	40	22.09	Accepted
16	13.37	Accepted	47	15.89	Accepted
20	12.40	Accepted	50	11.84	Accepted
22	4.81	Accepted	51	14.80	Accepted
23	4.20	Accepted	52	21.18	Accepted
24	10.46	Accepted	53	13.24	Accepted
25	8.37	Accepted	55	17.91	Accepted
27	4.70	Accepted	56	12.21	Accepted
28	19.53	Accepted	58	21.89	Accepted
29	29.02	Accepted	65	16.26	Accepted

- **CONSTRUCT VALIDITY**

In order to measure the construct validity of the scale, exploratory factor analysis (EFA) was conducted using “IBM SPSS version 22 computer program”. EFA was performed with a sample size of 360 on remaining thirty four items with fixing four factors to be extracted after face validity, content validity and item analysis. Item number 50 was deleted because of poor value. Successive EFA was conducted on 33 items with fixing four factors to be extracted and acceptable results were obtained which are discussed below.

- **RESULTS OF KAISER-MEYER-OLKIN (KMO)**

KMO test was conducted to check the suitability of data and measure the adequacy of the sample for factor analysis. It measures the proportion of variance among variables and the lower proportion is considered more suitable for

factor analysis. Kaiser (1974) has interpreted the values of KMO from 0.80 to 0.89 as meritorious. For this tool, the result obtained shows that, KMO is 0.875 indicating an acceptable value which shows that data is adequate.

- **RESULTS OF BARTLETT'S TEST OF SPHERICITY**

Bartlett's Test of Sphericity (Bartlett, 1950) is also a measure of sampling adequacy used to examine the appropriateness of factor analysis and check the significance, validity and suitability of the data. So, for this tool, statistic of Bartlett's Test of Sphericity is 0.000 which proves the value as significant.

- **RESULTS OF EXPLORATORY FACTOR ANALYSIS**

Four factors contributing a total of 42.179% variance and producing loadings between 0.387-0.775 were extracted by computing principal component analysis and varimax rotation and scree plot in exploratory factor analysis. The results are presented in Figure 3.2 and Table 3.13. After factor analysis, items retained were analyzed in four subscales as prepared in the framework and draft. The first factor and subscale was named as authoritarian classroom management style which consisted of nine items i.e. item no. 7 (My teacher believes that students should follow directions without asking questions even if required), 9, 10, 11, 12, 14, 15, 16, 20. The second factor and subscale was named as laissez-faire classroom management style which consisted of eight items i.e. item no. 24, 28, 29, 30, 35, 47 (My teacher believes that students learn best when they get freedom to do comfortably), 51, 53. The third factor and subscale was named as democratic classroom management style which consisted of ten items i.e. item no. 6, 22, 23, 25, 27, 31, 32, 34 (My teacher creates interest for learning by encouraging students), 37, 38. The fourth factor and subscale was named as indifferent classroom management style which consisted of six items i.e. item no. 40, 52 (My teacher accepts all kinds of students' behaviour), 55, 56, 58, 65. It was concluded from the results that the items categorized under four factors retain the theme of subscales as prepared in conceptualization.

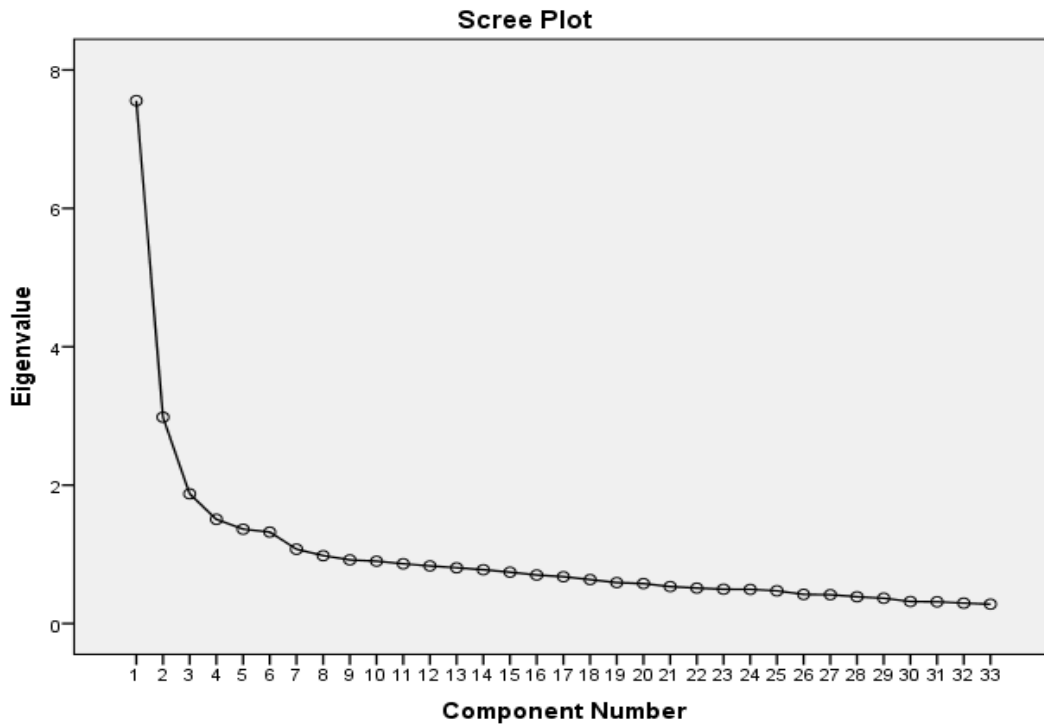


FIGURE 3.2: SCREE PLOT OF CLASSROOM MANAGEMENT STYLES SCALE

TABLE 3.13: FACTOR STRUCTURE OF CLASSROOM MANAGEMENT STYLES SCALE

S. No.	Subscale	Factor Loading
	Subscale 1: Authoritarian Classroom Management Style Eigen Value = 4.359 % of Variance= 13.208	
1	Item No. 7 My teacher believes that students should follow directions without asking questions even if required.	0.487
2	Item No. 9 Students are not allowed to express their views freely in the classroom.	0.617
3	Item No. 10 Students do not express their thoughts when the teacher has a strict facial expression.	0.601
4	Item No. 11 My teacher does not discuss his/her expectations with students.	0.604
5	Item No. 12 Students are not allowed to raise their doubts while the teacher is teaching.	0.645
6	Item No. 14 My teacher does not deal with students fairly.	0.658
7	Item No. 15 My teacher embarrasses students in the class.	0.616
8	Item No. 16 My teacher does not support student's point of view.	0.692
9	Item No. 20 My teacher forces students to follow his/her instructions without arguing.	0.546

Contd.

S. No.	Subscale	Factor Loading
	Subscale 2: Laissez-faire Classroom Management Style Eigen Value = 3.940 % of Variance= 11.940	
10	Item No. 24 My teacher forgives students on making inadvertent mistakes.	0.423
11	Item No. 28 My teacher joins students to participate in extracurricular activities.	0.525
12	Item No. 29 My teacher allows students to select activity/assignment/project as per their interest and the relevance to the syllabus.	0.700
13	Item No. 30 My teacher shares his/her experiences with students.	0.775
14	Item No. 35 My teacher and students enjoy the relationship of mutual respect and trust.	0.599
15	Item No. 47 My teacher believes that students learn best when they get freedom to do comfortably.	0.545
16	Item No. 51 Students' opinions are accepted in the classroom.	0.462
17	Item No. 53 My teacher treats students as his friends.	0.451
	Subscale 3: Democratic Classroom Management Style Eigen Value = 3.196 % of Variance= 9.684	
18	Item No. 6 My teacher believes in structured classroom setting (assigned seating in rows).	0.590
19	Item No. 22 My teacher believes in a conducive atmosphere for learning in the classroom.	0.387
20	Item No. 23 My teacher's caring attitude prompts the students to remain disciplined in the class.	0.490
21	Item No. 25 My teacher holds discussion with students in the classroom to solve their problems.	0.500
22	Item No. 27 My teacher welcomes questions from students.	0.452
23	Item No. 31 My teacher boosts students to do better academically when they do not perform well.	0.461
24	Item No. 32 My teacher praises good manners of students.	0.453
25	Item No. 34 My teacher creates interest for learning by encouraging students.	0.602
26	Item No. 37 My teacher cooperates with students to solve problems in the school.	0.552
27	Item No. 38 My teacher engages students in enforcement of classroom rules.	0.608

Contd.

S. No.	Subscale	Factor Loading
	Subscale 4: Indifferent Classroom Management Style Eigen Value = 2.425 % of Variance= 7.347	
28	Item No. 40 My teacher considers emotional well-being of students more important than classroom control.	0.413
29	Item No. 52 My teacher accepts all kinds of students' behaviour.	0.565
30	Item No. 55 My teacher does not care at all to discipline students in the classroom.	0.665
31	Item No. 56 My teacher does not mind students looking around in classroom and out of windows.	0.659
32	Item No. 58 My teacher considers the class preparation useless.	0.609
33	Item No. 65 My teacher doesn't want to impose any rules on students.	0.545

- **RELIABILITY**

Reliability is the “consistency with which a test measures, whatever it measures”. It suggests both “stability and consistency of measurement”. Internal consistency reliability was used to assess the consistency of results across the items within the test. Estimation of reliability of the classroom management styles scale was done using below mentioned method.

- ❖ **CRONBACH'S ALPHA RELIABILITY**

To determine the “internal consistency” of the whole scale and each subscale, Coefficient Alpha (Cronbach, 1951) was calculated with a sample size of 360 by using IBM SPSS version 22 computer program. Results indicated that coefficient alpha of whole scale was 0.653 which was considered as acceptable score (Cronbach, 1951). Furthermore, internal consistencies for each subscale were as follows: authoritarian, 0.814, laissez-faire, 0.758, democratic, 0.791, indifferent, 0.644. All subscales were also found to be reliable. Results are presented in Table 3.14.

TABLE 3.14: RELIABILITY OF CLASSROOM MANAGEMENT STYLES SCALE

S. No.	Subscale	Cronbach's Alpha
1	Authoritarian Classroom Management Style	0.814
2	Laissez-faire Classroom Management Style	0.758
3	Democratic Classroom Management Style	0.791
4	Indifferent Classroom Management Style	0.644
Total Scale		0.653

3.3.1.1.3 FINAL DRAFT OF THE SCALE

Classroom management styles scale was prepared and standardized to assess secondary school students' perceptions of their teachers' authoritarian, democratic, laissez-faire and indifferent classroom management styles in Punjab. An initial draft of 65 items was prepared after developing the conceptual framework. While determining face validity on the basis of subject experts' opinions, in total 7 items were deleted from the initial draft. Further, content validity index was calculated with remaining 58 items which lead to the deletion of total 24 items from the draft of the scale. Next, pilot study was conducted with a sample size of 360 secondary school students. To construct the final tool, discrimination index was measured to find out the discriminatory power of remaining 34 items by calculating t-value. As all the items possessed more than 1.99 discrimination index, so, no item got deleted at this stage and all the 34 items were retained. Further, EFA was performed with a sample size of 360 on remaining 34 items with fixing four factors to be extracted. Item number 50 was deleted because of poor value. Successive EFA was conducted on 33 items with fixing four factors to be extracted and acceptable results were obtained. Cronbach's alpha was calculated on 33 items with a sample size of 360 to confirm the internal consistency and reliability of the scale which presented acceptable results. At last, 33 items were selected to be included in the final form of the Classroom Management Styles Scale. The distribution of 33 items in different dimensions of the Classroom Management Styles Scale is shown in the Table 3.15.

TABLE 3.15 : DIMENSION WISE DISTRIBUTION OF ITEMS IN THE CLASSROOM MANAGEMENT STYLES SCALE

S. No.	Dimension	Item Number	Total No. of items
1	Authoritarian Classroom Management Style	7, 9, 10, 11, 12, 14, 15, 16, 20	9
2	Laissez-faire Classroom Management Style	24, 28, 29, 30, 35, 47, 51, 53	8
3	Democratic Classroom Management Style	6, 22, 23, 25, 27, 31, 32, 34, 37, 38	10
4	Indifferent Classroom Management Style	40, 52, 55, 56, 58, 65	6
Total items			33

3.3.1.1.4 SCORING PROCEDURE

Classroom management styles scale is a 5 point Likert type scale. Each item has 5 response options namely: “Never”, “Seldom”, “Sometimes”, “Often” and “Always”.

TABLE 3.16: SCORING PROCEDURE FOR CLASSROOM MANAGEMENT STYLES SCALE

Items	Never	Seldom	Sometimes	Often	Always
Positive	1	2	3	4	5

For obtaining the value of score for each item, each response of the item has assigned number. All items prepared are positive in nature. Scoring of positive items has been done on the basis of Table 3.16 which is given above.

3.3.1.2 INSTITUTIONAL SUPPORT SCALE

In the present study, “Institutional Support Scale” has been developed and standardized for secondary school students of Punjab to assess their perceptions of institutional support provided to them in schools. The development and standardization process of the scale was carried out by using highly reliable and valid scale development procedure. This scale has been constructed in three parts i.e. three subscales namely Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities). This scale can be used by researchers, school administrators, teachers and psychologists. The results of this scale can help the teachers and school administrators to provide all kinds of student services, to plan

for providing appropriate facilities and opportunities to flourish the personality of students and to make the school such a place which caters students' needs and nurtures their behaviour, and lastly to be aware of students' perspectives of school support so that resources can be planned for the better. The development and validation procedure followed in the standardization of the institutional support scale is given below.

- **Need for Scale Development**

There are few studies related to the development and adaptation of institutional support scale which are presented in the Table 3.17. Some of the tests have appeared in recent years to study academic support and services provided to students such as Perceived Parental, Teacher and Peer Academic Support Scale by Chen (2005), Questionnaire on academic advising by Afshar (2009), Questionnaire on academic support services by Junio-Sabio (2012), and Alfaro et al. (2006) adapted Academic Support Scale from Plunkett and Bamaca-Gomez (2003). Shelton (2000) developed Perceived Faculty Support Scale and Federici and Skaalvik (2014) developed Perceived Teacher Support Scale. Some scales and questionnaires on social support provided to students are developed and used by O'Reilly-Knapp (1992), Richman et al. (1998), Malecki and Demaray (2003), Suldo et al. (2009), Fezer (2008), and Srivastava and Pant (2015). Some studies conducted by Ranka (2016), Edwards (2006), MCGowen (2007), Owoeye and Yara (2011), Timilehin (2012), Khurshid and Khan (2012) and Kalita (2013) are related to the school facilities given to students.

From the above discussed tools, it is evident that separate tools are available to measure academic support, social support, teacher support and school facilities provided to students. No collaborative effort has been made to study the institutional support as providing all kinds of student services except Scott (2008) and Milman et al. (2015) who have attempted to study the institutional support provided to college and university students. The maximum developed and adapted scales were made and employed in foreign contexts. Further, there is no institutional support scale specific to Indian context. Therefore, there is a dire need to develop institutional support scale which is appropriate for Indian context for measuring secondary schools

students' perceptions of school support provided to them. Keeping in view the major aim of institutional support which is to meet all kinds of student needs as mentioned by many researchers, institutional support scale was developed and standardized to measure academic support, non-academic support and institutional facilities provided to secondary school students by the school.

TABLE 3.17: REFERENCE FOR THE CONSTRUCTION OF INSTITUTIONAL SUPPORT SCALE

S. No.	Author(s) & Year	Sample	Tool	Dimensions
1	Scott (2008)	Community college Students	Strategic-Impact-Model	Institutional support: Academic advising, Registration services, Orientation and new student programs, Institutional facilities
2	Milman et al. (2015)	First and second year university students	A survey instrument related to Institutional support	Administrative support services, Academic support services, Technology support services, University online community supports
3	Chen (2005)	270 Adolescents of 9 th -11 th class (152 boys & 118 girls) from a Hong Cong secondary school	Perceived Parental, Teacher and Peer Academic Support Scale	Emotional support, Instrumental support, Cognitive support
4	Alfaro et al. (2006)	310 students of 9 th and 10 th class (154 boys & 156 girls) from five Midwestern high schools	Academic Support Scale (Plunkett & Bamaca-Gomez 2003)	Perceived levels of academic support from mothers, fathers, teachers and peers
5	Afshar (2009)	156 undergraduate students	Questionnaire on academic advising	Social and personal needs, Information related concerns, Life goals and objectives of advisors' academic advising
6	Junio-Sabio (2012)	336 college Students, Oman	Questionnaire on academic support services	Registration and admission services, Library services, Information and learning technology services, Academic advising, Student learning support services, Teaching resources
7	Shelton (2000)	458 nursing degree students	Perceived Faculty Support Scale	Psychological support and Functional support

Contd.

S. No.	Author(s) & Year	Sample	Tool	Dimensions
8	Federici & Skaalvik (2014)	309 Norwegian students of 9 th - 10 th grade	Perceived Teacher Support Scale	Emotional support, Instrumental support
9	O'Reilly-Knapp (1992)	242 nursing students of junior and senior year of baccalaureate programs.	Revised Inventory of Social Supportive Behaviours (ISSB)	Tangible assistance, Nondirective support, Directive guidance, Positive social interaction
10	Richman et al. (1998)	296 middle and 229 high school students	School Success Profile (SSP)	Types of social support: Listening support, Technical appreciation support, Technical challenge support, Emotional support, Emotional challenge support, Reality confirmation support, Tangible support, Personal support
11	Malecki & Demaray (2003)	263 school students of 5 th - 8 th grade	Child and Adolescent Social Support Scale (CASSS) by Malecki et al. (2000)	Emotional support, Informational support, Appraisal support, Instrumental support
12	Suldo et al. (2009)	Middle school students	Teacher support subscale of Child and Adolescent Social Support Scale (Malecki et al., 2000)	Emotional support, Instrumental support, Appraisal support, Informational support
13	Fezer (2008)	471 high school adolescents of 9 th -12 th grade	Child and Adolescent Support Scale (Malecki and Demaray, 2003)	Emotional support, Informational support, Appraisal support, Instrumental support
14	Srivastava & Pant (2015)	100 students of 11 th - 12 th class (50 male & 50 female)	Social Support Questionnaire (Nehra et al. 1998)	Emotional support, Informational support, Instrumental support, Structural support, Functional support
15	Ranka (2016)	30 female secondary students	Classroom Environment Scale (Joshi and Vyas, 1987)	Involvement, Affiliation, Teacher support, Task orientation, Competition, Order and organization, Rule clarity, Teacher control, Innovation
16	Edwards (2006)	39 middle and high school students	Students Survey 'School Facilities and Student Achievement'	Physical learning environment.

Contd.

S. No.	Author(s) & Year	Sample	Tool	Dimensions
17	Mcgowen (2007)	101 principals of Texas high schools	Total Learning Environment Assessment (TLEA) (O'Neill, 2000)	Educational adequacy (academic learning space, specialized learning space and support space), Environment for education (exterior environment and interior environment), Space flexibility, Cosmetic condition
18	Owoeye & Yara (2011)	Final year students of 50 secondary schools in the rural and urban areas of Ekiti state, Nigeria	Student and Teacher Questionnaire on Facilities (STQF)	Availability of laboratories, textbooks, libraries, school building
19	Timilehin (2012)	1200 teachers of 60 public secondary schools, south-west Nigeria	Secondary School Effectiveness Questionnaire (SSEQ)	School facilities, Students' achievement in the affective and psychomotor domains
20	Khurshid & Khan (2012)	100 secondary school teachers of 10 schools of Rawalpindi & Islamabad	School Facilities Scale	Facilities for physical, social, emotional, academic, spiritual and cognitive development
21	Kalita (2013)	500 (250 male & 250 female) secondary school students of 10 th class from the two districts of Assam	Questionnaire for Institutional facilities	Classroom, library, Teaching-learning, Computer and internet, Transportation, Hostel, Students support, Health and sanitation facilities

Source: *Authors Findings*

- **Subscales and Dimensions of Institutional Support Scale**

The present scale was prepared for secondary school students of Punjab to assess their perceptions of institutional support provided to them in schools. This scale has three parts i.e. three subscales namely Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities). The subscales and their dimensions are stated below.

- ❖ **Subscale I: Part A (Academic Support):** Academic support is the services and resources provided by the school to promote and facilitate the academic learning of the students. It is a fundamental and inextricable component of an effective school that should be provided to each and every student. In this study, it includes the dimensions: academic advising and learning support.

- Academic Advising- Academic advising supports the school students by providing comprehensive information, advice and feedback to succeed in academics.
 - Learning Support- Learning support provides encouragement for teamwork, understanding of concepts, motivation and supplementary help to school students.
- ❖ Subscale II: Part B (Non-Academic Support): Non-Academic support is the services and resources provided by the school to promote and facilitate the physical, social and emotional development of students. Such services and resources are not related to the academics directly. In this study, it includes the dimensions: informational support, and care and encouragement.
- Informational Support- Informational support includes the provision of help, advice, guidance, suggestions, and useful information for school students.
 - Care and Encouragement- It is the motivation provided to school students for their progress.
- ❖ Subscale III: Part C (Institutional Facilities): Institutional facilities include the whole physical plant of the school which is provided for the fruitful learning of the students. According to Kalita (2013), institutional facilities are to the school, as the body to the soul, machinery to the factory, plane to the pilot and an empire to the kingdom and are declared as a potent factor to quantitative as well as qualitative education and consist of the different school and infrastructural facilities made for students. In this study, it includes the dimensions: learning environment, basic infrastructure and extended facilities.
- Learning Environment- Learning environment includes classrooms with platforms, adequate spacing and ventilation.
 - Basic Infrastructure- Basic infrastructure includes classrooms of proper size with basic amenities like blackboard, duster, chalk, electricity etc.
 - Extended Facilities- Extended facilities include library facilities and comfort in classrooms.

3.3.1.2.1 ITEM SCALING, CONSTRUCTION AND DEVELOPMENT

Before starting construction of the items for the scale, it is important to decide the scaling of the items. Review of literature revealed that Likert scale is an essential scaling in social surveys studies, and is a method of collecting attitudinal data (Dittrich et al., 2007). Therefore in the institutional support scale, Likert Scale technique developed by Likert (1932) is used to measure students' perceptions by providing a range of responses to the given statement. Each statement is planned on "5 point Likert Type Scale" and has five responses i.e. "Strongly Agree", "Agree", "Neutral", "Disagree", and "Strongly Disagree".

After deciding the scaling of the items, construction of the Institutional Support Scale was started. Initially, an extensive study of the existing literature on institutional support, institutional facilities, school support, school facilities, academic support and non-academic support was made. Based on the review of literature, the Institutional Support Scale was divided into three parts i.e. three subscales namely Subscale I: Part A (Academic Support), Subscale II: Part B (Non-Academic Support) and Subscale III: Part C (Institutional Facilities).

After reviewing literature and consulting the existing standardized psychological tools, 2 dimensions in academic support subscale, 2 dimensions in non-academic support subscale and 3 dimensions in institutional facilities subscale were chosen. Discussions with experts in the field of Psychology and Education were held, with regard to justifying the appropriateness of the chosen dimensions. In this scale, the items in Part A subscale and Part B subscale have been constructed and in Part C subscale, a 28-item Questionnaire for Institutional Facilities (Kalita, 2013) has been used. The tool at its initial drafting stage included 16 items for Part A (Academic Support), 24 items for Part B (Non-Academic Support) and 28 items for Part C (Institutional Facilities).

First of all, the initial draft of the scale was shown to three Doctorates, language experts (Assistant Professors) from the Department of English of Lovely Professional University, Punjab for assuring the language of the statements as short, simple, clear, easily understood, unambiguous, and securing appropriate sentence formation and grammar. Next, discussions with experts in the field of Psychology

and Education were held with regard to justifying the appropriateness of the selected subscales and dimensions. So, the initial draft comprising 16 items in Part A (Academic Support), 24 items in Part B (Non-Academic Support) and 28 items in Part C (Institutional Facilities) was shown to the experts belonging to the discipline of Psychology and Teacher Education to establish the face validity and content validity of institutional support scale.

- **Validity**

A test is said to be valid when it measures what it is supposed or claimed to measure. Alternatively, a test whose performance closely resembles an objectively defined criterion is said to be valid. Both Face validity and Content validity of the Institutional Support Scale was determined based on the opinion of the six subject experts. The list of subject experts is given below.

TABLE 3.18: LIST OF EXPERTS CONTACTED FOR MEASURING FACE VALIDITY AND CONTENT VALIDITY OF INSTITUTIONAL SUPPPORT SCALE

S. No.	Name	Designation
1	Dr. K.K. Sharma	Former Pro-Vice-Chancellor and Professor Harmony Philosophy Chair (IASE), Deemed University, Sardarshar, Rajasthan
2	Dr. Kulwinder Singh	Professor, Punjabi University, Patiala
3	Dr. Kuldip Puri	Professor, Panjab University, Chandigarh
4	Dr. Amit Kauts	Professor, Dean, Department of Education, Guru Nanak Dev University, Amritsar
5	Dr. Deepa Kauts	Associate Professor, Guru Nanak Dev University, Amritsar
6	Dr. Ram Mehar	Associate Professor, Panjab University, Chandigarh

- **Face Validity**

It is the extent to which a test is subjectively viewed as covering the concept it purports to measure. It refers to the transparency or relevance of a test as it appears to test participants. In order to measure the face validity of institutional support scale, the remarks of subject experts were considered. On the basis of their remarks, item number 13 from Part A (Academic Support) and item number 23, 25,

27 from Part C (Institutional Facilities) were deleted from the scale. In total 15, 24, 25 items were retained in Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities) respectively after the initial modification of the tool based on the suggestions of the subject experts. Thus, face validity of the scale was determined by experts.

- **Content Validity**

It refers to the extent to which a test represents all facets of a given construct and covers the concept as it purports to measure. In order to determine the content validity, institutional support scale consisting 15, 24, 25 items in Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities) respectively was shown to subject experts and their expert viewpoints on quality of items were taken and measured on four point rating which is shown in the table below.

TABLE 3.19: EXPERT VIEWPOINTS ON QUALITY OF ITEMS

Quality of items	Not relevant	Somewhat relevant	Quite relevant	Highly relevant
Rating	1	2	3	4

Based on the judgement of subject experts, content validity index was calculated. The method developed by Lawshe (1975) was applied for measuring content validity. The items having value below 0.8 were rejected. At this step, item number 6 and 7 from Part A (Academic Support), item number 15, 17 and 22 from Part B (Non-Academic Support) and item number 15 from Part C (Institutional Facilities) were deleted from the scale for having poor values. In total 13, 21, 24 items were retained in Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities) respectively. Content Validity Index of Institutional Support Scale was found to be 1, 0.96 and 0.95 for Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities) respectively which shows the content of institutional support scale is highly relevant. Item wise Content Validity Index of the retained items was given below in the Table 3.20.

TABLE 3.20: ITEM WISE CONTENT VALIDITY INDEX OF INSTITUTIONAL SUPPORT SCALE

Item No. Part A	ICVI	Item No. Part B	ICVI	Item No. Part C	ICVI
1	1	1	1	1	1
2	1	2	1	2	0.83
3	1	3	1	3	0.83
4	1	4	1	4	1
5	1	5	1	5	0.83
8	1	6	1	6	0.83
9	1	7	1	7	1
10	1	8	1	8	1
11	1	9	1	9	1
12	1	10	1	10	0.83
14	1	11	1	11	1
15	1	12	1	12	1
16	1	13	1	13	1
		14	0.83	14	1
		16	0.83	16	0.83
		18	0.83	17	1
		19	1	18	0.83
		20	0.83	19	1
		21	1	20	1
		23	1	21	1
		24	0.83	22	1
				24	1
				26	1
				28	1
ICVI- Item-wise Content Validity Index					

3.3.1.2.2 STANDARDIZATION OF THE SCALE

- SAMPLE**

In order to standardize the Institutional Support Scale with 13, 21, 24 items retained in Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities) respectively, a pilot study was conducted, and the scale thus prepared was put for initial try out. For the pilot study, data was collected from 360

students of 10th class i.e. 180 from government and 180 from private schools affiliated to PSEB and CBSE board in Jalandhar district. Thirty students were selected conveniently from each school. Thus, in total twelve schools were approached. The sample comprised of female (60.6%) and male (39.4%) students.

- **ITEM ANALYSIS**

After pilot study, discrimination index was measured to find out the discriminatory power of 13, 21, 24 items of Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities) respectively by calculating t-value which forms the basis for item selection in order to build up the final scale. A Likert type scale was used with response options namely “Strongly Agree”, “Agree”, “Neutral”, “Disagree” and “Strongly Disagree”. The individual score for all the 360 students were ranked from the highest to the lowest. Then 25% of the subjects with the highest total scores and 25% of the subjects with the lowest total scores were sorted out for the purpose of calculation of discriminatory power of each of the items of the tool. Then each item was taken individually and the number of students who responded “Strongly Agree”, “Agree”, “Neutral”, “Disagree” and “Strongly Disagree” was found out both for the high and low groups separately. Thus for all 13, 21, 24 items of Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities) respectively, the number of students coming under each category was found out separately for both the high and low groups and the discrimination index for all the 13, 21, 24 items of Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities) respectively were calculated. Only those items were selected whose discrimination index was greater than 1.99 (significant at 0.05 level). All the items of Part A (Academic Support) and Part B (Non-Academic Support) possessed more than 1.99 discrimination index, so, no item got deleted at this stage. Item number 22 and 24 of Part C (Institutional Facilities) were deleted at this stage. In total, 13, 21, 22 items of Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities) respectively were retained. Discrimination index of the items of Institutional Support Scale are given in Table 3.21.

TABLE 3.21: ITEM WISE DISCRIMINATION INDEX OF INSTITUTIONAL SUPPORT SCALE

Item No. Part A	DI	Remarks	Item No. Part B	DI	Remarks	Item No. Part C	DI	Remarks
1	21.52	Accepted	1	32.15	Accepted	1	34.65	Accepted
2	24.36	Accepted	2	32.03	Accepted	3	29.34	Accepted
3	27.57	Accepted	3	40.25	Accepted	5	29.65	Accepted
4	28.48	Accepted	4	39.70	Accepted	7	21.80	Accepted
5	24.90	Accepted	5	31.79	Accepted	9	30.60	Accepted
8	31.77	Accepted	6	28.72	Accepted	11	26.69	Accepted
9	29.81	Accepted	7	26.12	Accepted	14	25.61	Accepted
10	28.97	Accepted	8	24.14	Accepted	16	17.50	Accepted
11	25.61	Accepted	9	24.58	Accepted	18	21.30	Accepted
12	28.49	Accepted	10	23.90	Accepted	20	23.34	Accepted
14	31.55	Accepted	11	22.08	Accepted	26	35.77	Accepted
15	25.87	Accepted	12	20.56	Accepted	28	6.72	Accepted
16	33.89	Accepted	13	35.30	Accepted	2	21.03	Accepted
			14	29.32	Accepted	4	6.26	Accepted
			16	20.65	Accepted	6	15.75	Accepted
			18	31.13	Accepted	8	8.79	Accepted
			19	28.28	Accepted	10	21.54	Accepted
			20	30.47	Accepted	12	14.74	Accepted
			21	24.54	Accepted	13	6.53	Accepted
			23	22.22	Accepted	17	3.51	Accepted
			24	39.45	Accepted	19	2.80	Accepted
						21	16.96	Accepted
DI- Discrimination Index								

- **CONSTRUCT VALIDITY**

Further, to measure the construct validity of Institutional Support Scale, exploratory factor analysis (EFA) was conducted using IBM SPSS version 22 computer program. EFA was performed with a sample size of 360 on the items of Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities). To fix the dimensions of institutional support scale, parallel analysis was used with the help of Monte Carlo PCA for Parallel Analysis software (Watkins, 2000) and random Eigen values were generated which are shown below.

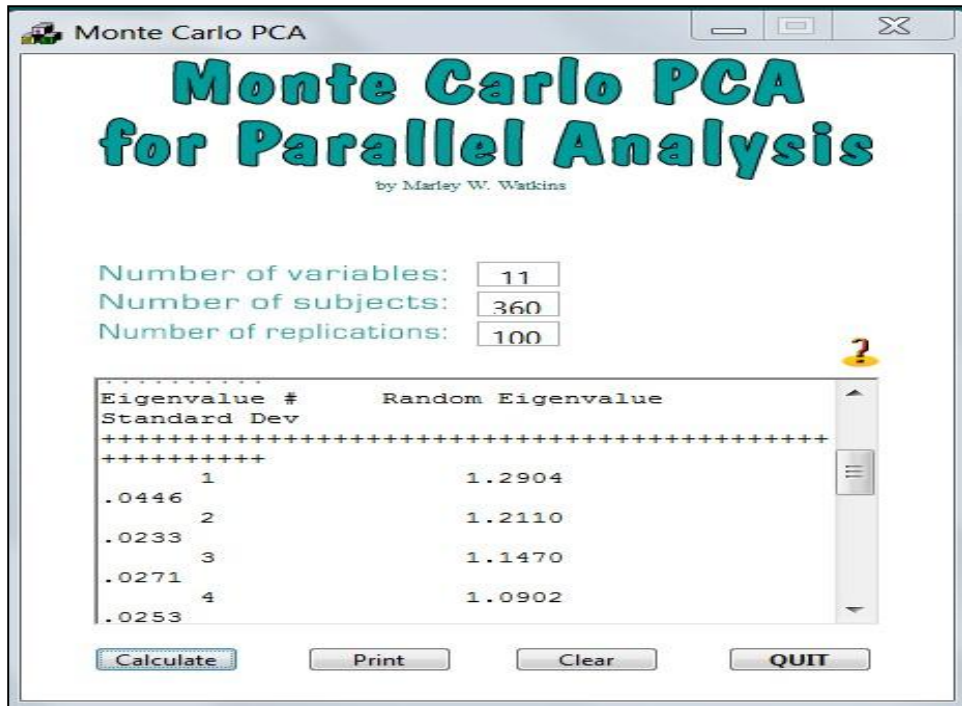


FIGURE 3.3: MONTE CARLO PCA FOR PARALLEL ANALYSIS OF PART A (ACADEMIC SUPPORT)

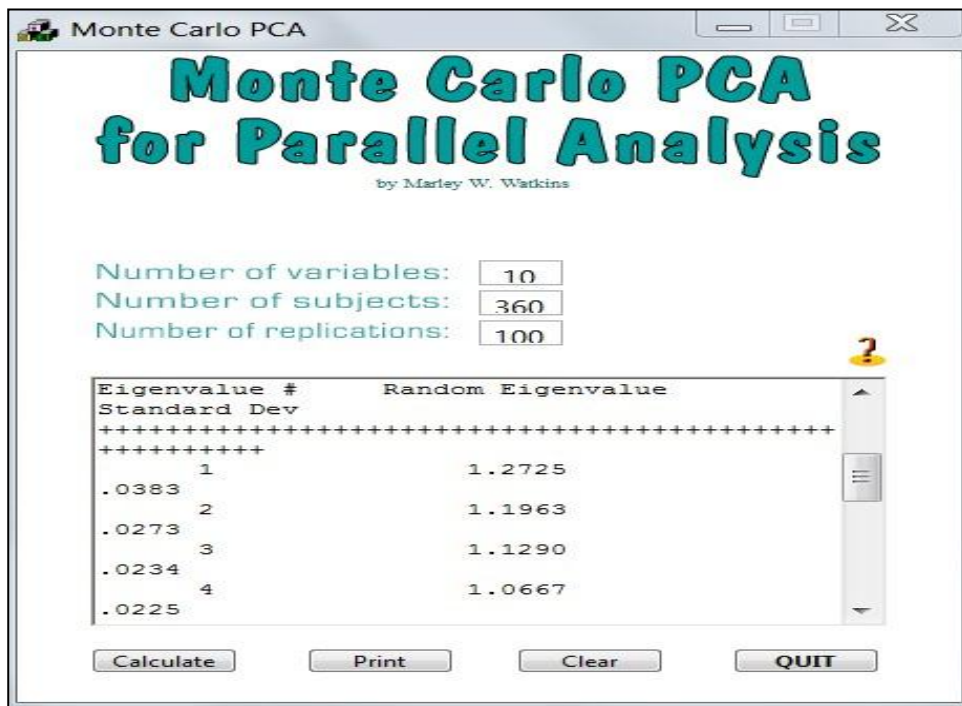


FIGURE 3.4: MONTE CARLO PCA FOR PARALLEL ANALYSIS OF PART B (NON-ACADEMIC SUPPORT) AND PART C (INSTITUTIONAL FACILITIES)

The numbers of factors from EFA which had their calculated Eigen value greater than the critical random Eigen value by Monte Carlo PCA for Parallel Analysis were retained. In this way two factors in Part A (Academic Support), two factors in Part B (Non-Academic Support) and three factors in Part C (Institutional Facilities) were extracted meeting the mentioned criteria. Further, confirmatory factor analysis (CFA) was conducted on a sample size of 360 using IBM SPSS AMOS Version 20 to confirm the factor structure of Institutional Support Scale. The procedure and the results of conducting EFA and CFA are discussed below.

- **PROCEDURE OF CONDUCTING EFA AND CFA**

- 1) Part A (Academic Support): EFA was conducted on remaining 13 items after face validity, content validity and item analysis with a sample size of 360. Item number 16 did not load clearly on any specific factor on rotation. Hence, it was deleted and two factors were obtained. Then, CFA was conducted with a sample size of 360 on 12 items and this time item number 12 was deleted as its factor loading was relatively less than other items (less than 0.5). In the successive EFA two factors were obtained with remaining 11 items. In the successive CFA involving 11 items, acceptable fit indices were obtained.
- 2) Part B (Non-Academic Support): 21 items were selected after face validity, content validity and item analysis for EFA with a sample size of 360 and two factors were extracted. CFA with a sample of 360 was performed on 21 items and poor fit was obtained. In order to improve the factor structure, items with factor loading 0.5 and above were retained. In the successive EFA two factors were obtained with remaining 10 items. Then, CFA was conducted on 10 items. Both the factors were related before running the CFA. Based on the modification indices, errors of item number 4 and 5 were co-varied and acceptable fit indices were obtained.
- 3) Part C (Institutional Facilities): 22 items were approved by experts after face validity, content validity and item analysis. EFA was conducted with a sample of 360 on 22 items and three factors were extracted. CFA with a sample of 360

was conducted on 22 items only to obtain a poor fit. In order to improve the factor structure, items with loading 0.5 or more were retained. In the successive EFA, three factors were obtained with remaining 10 items. Then, successive CFA with remaining 10 items produced acceptable fit indices.

- **RESULTS OF KAISER-MEYER-OLKIN (KMO)**

KMO test was conducted to check the suitability of data and measure the adequacy of the sample for factor analysis. It measures the proportion of variance among variables and the lower proportion is considered more suitable for factor analysis.

- 1) Part A (Academic Support): Kaiser (1974) has interpreted the values of KMO from 0.70 to 0.79 as middling and acceptable. For this tool, the result obtained shows that, KMO is 0.790 indicating an acceptable value which shows that data is adequate.
- 2) Part B (Non-Academic Support): Kaiser (1974) has interpreted the values of KMO from 0.80 to 0.89 as meritorious. For this tool, the result obtained shows that, KMO is 0.873 indicating an acceptable value which shows that data is adequate.
- 3) Part C (Institutional Facilities): Kaiser (1974) has interpreted the values of KMO from 0.70 to 0.79 as middling and acceptable. For this tool, the result obtained shows that, KMO is 0.771 indicating an acceptable value which shows that data is adequate.

- **RESULTS OF BARTLETT'S TEST OF SPHERICITY**

Bartlett's Test of Sphericity (Bartlett, 1950) is also a measure of sampling adequacy used to examine the appropriateness of factor analysis and check the significance, validity and suitability of the data. So, for this tool, statistic of Bartlett's Test of Sphericity is 0.000 for Part A (Academic Support), 0.000 for Part B (Non-Academic Support) and 0.000 for Part C (Institutional Facilities) which proves the value as significant.

- **RESULTS OF EXPLORATORY FACTOR ANALYSIS**

- 1) Part A (Academic Support)

Two factors contributing a total of 48.111% variance and producing loadings between 0.585-0.763 were extracted by computing principal component analysis and varimax rotation and scree plot in exploratory factor analysis. The results are presented in Figure 3.5 and Table 3.22. After factor analysis, items retained were analyzed in two subscales. The first factor, subscale was named as academic advising which consisted of seven items i.e. item number 1, 2, 3 (My teachers discuss ideas for assignments, class projects and tests in the classroom), 4, 5, 14 and 15. The second factor, subscale was named as learning support which consisted of four items i.e. item number 8 (My teachers encourage students for teamwork), 9, 10 and 11. It was concluded from the results that the items categorized under two factors retain the theme of subscales as prepared in conceptualization.

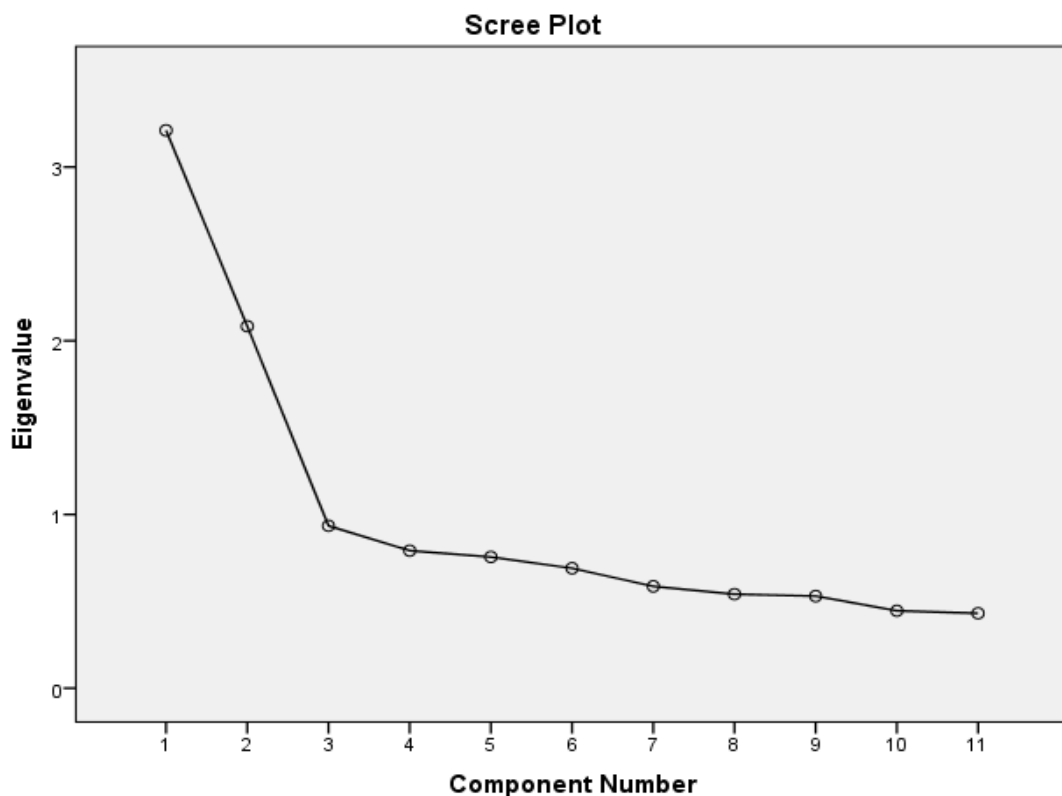


FIGURE 3.5: SCREE PLOT OF PART A (ACADEMIC SUPPORT) OF INSTITUTIONAL SUPPORT SCALE

**TABLE 3.22: FACTOR STRUCTURE OF INSTITUTIONAL SUPPORT SCALE: PART A
(ACADEMIC SUPPORT)**

S. No.	Subscale	Factor Loading
	Subscale 1: Academic Advising Eigen Value = 3.080 % of Variance= 28.001	
1	Item No. 1 My teachers provide information related to subjects.	0.661
2	Item No. 2 My teachers provide adequate advice and information for the preparation of examinations.	0.585
3	Item No. 3 My teachers discuss ideas for assignments, class projects and tests in the classroom.	0.685
4	Item No. 4 My teachers provide immediate feedback to students for their improvement.	0.713
5	Item No. 5 My teachers provide detailed remarks about academic achievements of students.	0.632
6	Item No. 14 My teachers carefully correct my homework.	0.636
7	Item No. 15 When I perform well in tests, my teachers appreciate me.	0.711
	Subscale 2: Learning Support Eigen Value = 2.212 % of Variance= 20.110	
8	Item No. 8 My teachers encourage students for teamwork.	0.688
9	Item No. 9 My teachers focus on the understanding of important concepts.	0.763
10	Item No. 10 My teachers motivate students to ask questions in the classroom.	0.699
11	Item No. 11 My teachers clarify the concepts which are not understood by students.	0.755

2) Part B (Non-Academic Support)

Two factors contributing a total of 51.531% variance and producing loadings between 0.414-0.775 were extracted by computing principal component analysis and varimax rotation and scree plot in exploratory factor analysis. The results are presented in Figure 3.6 and Table 3.23. After factor analysis, items retained were analyzed in two subscales. The first factor, subscale was named as informational support which consisted of six items i.e. item number 3 (A regular schedule of physical fitness is followed in the school), 4, 5, 6, 13, and 24. The second factor, subscale was named as care and encouragement which consisted of four items i.e. item number 9 (My school encourages students for participation in activities inside the school premises), 18, 20 and 21. It was concluded from the results that the items categorized under two factors retain the theme of subscales as prepared in conceptualization.

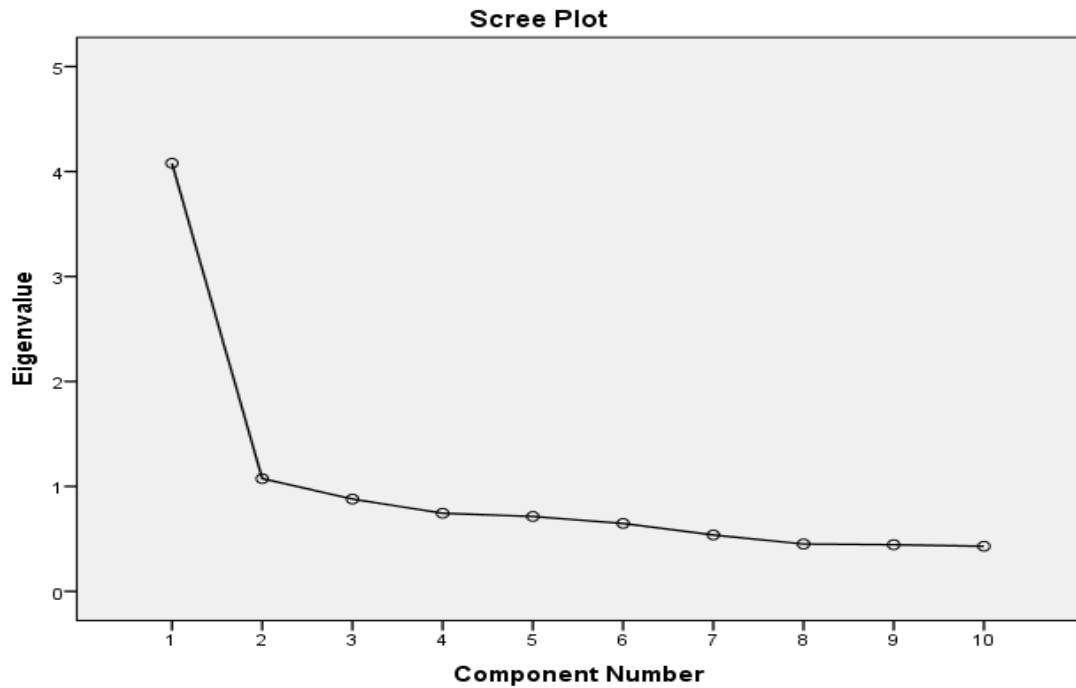


FIGURE 3.6: SCREE PLOT OF PART B (NON-ACADEMIC SUPPORT) OF INSTITUTIONAL SUPPORT SCALE

TABLE 3.23: FACTOR STRUCTURE OF INSTITUTIONAL SUPPORT SCALE: PART B (NON-ACADEMIC SUPPORT)

S. No.	Subscale	Factor Loading
	Subscale 1: Informational Support Eigen Value = 2.693 % of Variance= 26.933	
1	Item No. 3 A regular schedule of physical fitness is followed in the school.	0.769
2	Item No. 4 My school provides guidance and counselling to students.	0.648
3	Item No. 5 My school provides information about jobs and career opportunities.	0.704
4	Item No. 6 My school provides financial assistance to needy students.	0.599
5	Item No. 13 My school resolves grievances and complaints of students after a detailed review of the same.	0.552
6	Item No. 24 My teachers keep the dignity of students.	0.536
	Subscale 2: Care and Encouragement Eigen Value = 2.460 % of Variance= 24.598	
7	Item No. 9 My school encourages students for participation in activities inside the school premises.	0.719
8	Item No.18 My teachers motivate students.	0.725
9	Item No. 20 My teachers show genuine concern for students' development.	0.775
10	Item No. 21 My teachers spend time with students whenever they need.	0.414

3) Part C (Institutional Facilities)

Three factors contributing a total of 59.360% variance and producing loadings between 0.405-0.869 were extracted by computing principal component analysis and varimax rotation and scree plot in exploratory factor analysis. The results are presented in Figure 3.7 and Table 3.24. After factor analysis, items retained were analyzed in three subscales and compared with the subscales in the original version by Kalita (2013). The factors, subscales were renamed as per the changing loadings of items. The first factor, subscale was named as Learning Environment which consisted of three items i.e. item number 5 (Classrooms have platforms for the standing of classroom teachers), 6 and 7. The second factor, subscale was named as Basic Infrastructure which consisted of four items i.e. item number 1 (The classrooms of my school have adequate seating arrangements), 2, 3 and 4. The third factor, subscale was named as Extended Facilities which consisted of three items i.e. item number 8 (Classrooms are not equipped with ceiling fans), 9 and 10. It was concluded from the results that the items categorized under three factors retain the theme of subscales as prepared in conceptualization.

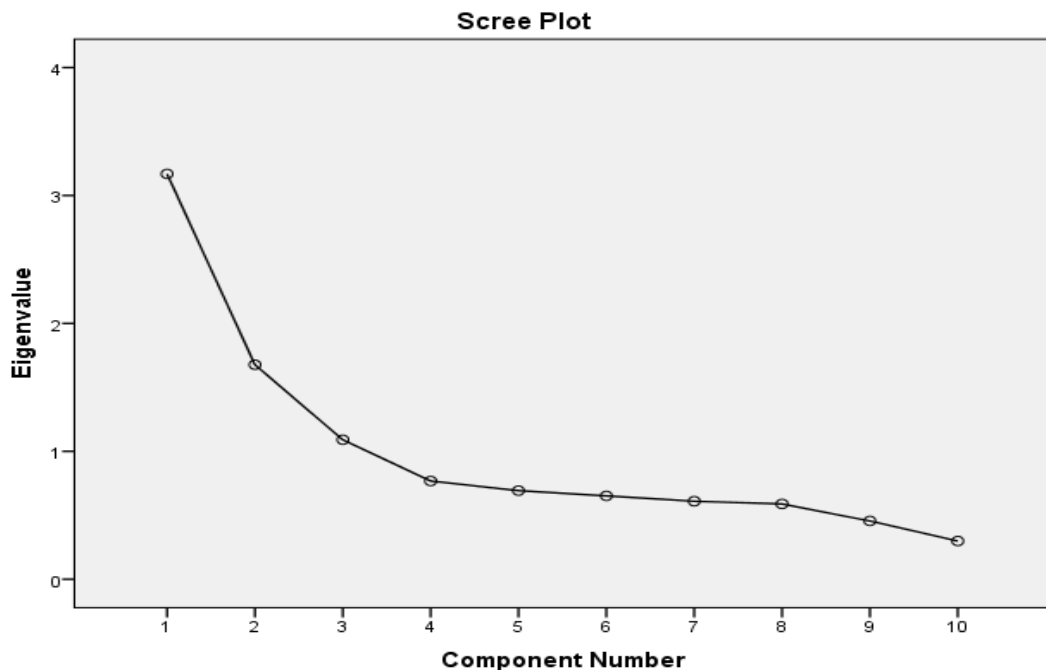


FIGURE 3.7: SCREE PLOT OF PART C (INSTITUTIONAL FACILITIES) OF INSTITUTIONAL SUPPORT SCALE

**TABLE 3.24: FACTOR STRUCTURE OF INSTITUTIONAL SUPPORT SCALE: PART C
(INSTITUTIONAL FACILITIES)**

S. No.	Subscale	Factor Loading
	Subscale 1: Learning Environment Eigen Value = 2.644 % of Variance= 26.439	
1	Item No. 5 Classrooms have platforms for the standing of classroom teachers	0.869
2	Item No. 6 Classes are overcrowded that hamper students' attention.	0.772
3	Item No. 7 Classrooms are well ventilated.	0.763
	Subscale 2: Basic Infrastructure Eigen Value = 1.959 % of Variance= 19.587	
4	Item No. 1 The classrooms of my school have adequate seating arrangements.	0.619
5	Item No. 2 Classrooms are not provided with good blackboard.	0.670
6	Item No. 3 Provisions are there for placing of dusters and chalks near the black board.	0.742
7	Item No. 4 Proper electricity is not available in all classrooms.	0.730
	Subscale 3: Extended Facilities Eigen Value = 1.333 % of Variance= 13.334	
8	Item No. 8 Classrooms are not equipped with ceiling fans.	0.596
9	Item No. 9 There is well equipped library in my school.	0.862
10	Item No. 10 I have to wait to receive a book from the library.	0.405

• **RESULTS OF CONFIRMATORY FACTOR ANALYSIS**

CFA was also conducted on a sample size of 360 using IBM SPSS AMOS Version 20 to confirm the factor structure of Institutional Support Scale.

1) Part A (Academic Support)

Validation of subscale academic support of Institutional Support Scale was conducted using confirmatory factor analysis with the aim to assess how well does a hypothesized factor structure “fits” the observed data? Initially, in order to check the adequacy of the data before proceeding to factor analysis, Kaiser-Meyer-Olkin (KMO) and Bartlett’s Test of Sphericity were conducted. The result obtained

showed KMO value was 0.790. For this tool, KMO was 0.790 indicating an acceptable value which shows that data was adequate. Apart from this, the statistic of Bartlett's Test of Sphericity i.e. $\chi^2 (55, N= 360) = 877.460, p = 0.000$, which is found significant. Hence, data was adequate for applying factor analysis.

After checking the adequacy of data, CFA was conducted. Maximum likelihood estimation procedures were employed to evaluate the fit of the proposed model of academic support subscale. Furthermore, Hu and Bentler (1999) recommended a two criteria strategy in evaluating model fit. Firstly, they advised to use the standardized root mean square residual (SRMSR) in estimating the model fit, with a value of .08 or less indicating a good fit to the data. Secondly, they recommend the usage of one of several fit statistics, viz. Tucker-Lewis Index (TLI) (Tucker & Lewis, 1973), Bollen's (1989) Index (IFI), the Comparative Fit Index (CFI) (Bentler, 1990), the Relative Noncentrality Index (RNI) (McDonald & Marsh, 1990), Gamma Hat (Steiger, 1989), McDonald's (1989) Centrality Index (MFI), or the Root Mean Square Error of Approximation (RMSEA) developed by Steiger and Lind (1980). Moreover, Hu and Bentler (1999) also indicated that the measures used in evaluating model fit for many of these statistics should be increased. For illustration, for the TLI, IFI, CFI, and RNI the widely-used criterion of 0.90 or greater should be increased to 0.95 or greater. For MFI, the criterion should be 0.90 or greater, and for RMSEA, the criterion should be 0.06 or lower. RMSEA values less than 0.5 suggest good fit, whereas model with $RMSEA \geq 0.1$ should be discarded. $RMSEA \leq 0.08$ suggest adequate model fit (Browne & Cudeck, 1993). Goodness-of-fit index, GFI can range from 0 to 1, values of 0.90 or greater indicate model that explained data well (Tanaka, 1987). Moreover, value of χ^2 / df ratio should be less than 5 is an indicative of good fit between the observed and reproduced correlation matrix (Hayduk, 1987). Apart from this, Hoelter's Critical N is one of the goodness of fit measures developed to test the adequacy of the sample size. It tells, from the data obtained, whether the sample size of the specified model is sufficient or not (Garson, 2009). Generally, accepted threshold for Hoelter's N is equal and greater than 200 but, a value of Hoelter's N less than 75 indicates that the sample size of the proposed model is not adequate to evaluate the model fit (Wan, 2002; Garson, 2009). Hoelter's Critical N, $75 \leq \text{value} < 200$ is acceptable and if it is

greater than or equal to 200 is good (Garson, 2009). The obtained measures of fit are presented in the following Table 3.25 which shows the acceptable fitness of the model.

TABLE 3.25: MEASURES OF FIT FOR ACADEMIC SUPPORT OF INSTITUTIONAL SUPPORT SCALE

Measure Fit	Value
χ^2/df	2.668
Root Mean Square Error of Approximation (RMSEA)	0.068
Goodness of Fit Index (GFI)	0.945
Root Mean Square Residual (RMR)	0.039
Bollen 89 Index, Incremental Fit Index (IFI)	0.916
Comparative Fit Index (CFI)	0.914
Normed Fit Index (NFI)	0.871
Relative Fit Index (RFI)	0.835
Tucker- Lewis Index (TLI)	0.890

The results of current analysis revealed that the hypothesized model of academic support subscale was found to provide an excellent fit to the data with χ^2 (43, N= 360) = 114.731, $p = 0.000$, significant, $p < .001$, $\chi^2/df = 2.668$ and Goodness-of fit-index, $GFI = 0.945$, which is showing good fit to the data. Along with it, statistics of Root Mean Square Error of Approximation (RMSEA) = 0.068 which is also acceptable and advocate good model fit (Browne and Cudeck, 1993). Further, statistics viz. Root Mean Square Residual (RMR) = 0.039, Bollen 89 Index, Incremental Fit Index (IFI) = 0.916, Comparative Fit Index (CFI) = 0.914, Normed Fit Index (NFI) = 0.871, Relative Fit Index (RFI) = 0.835, Tucker-Lewis Index (TLI) = 0.890. Hence, all values are satisfying the threshold criteria and contributing in confirming the model fit. Additionally, it is clear from the following Table 3.26 and Figure 3.8 that standardised regression weights or standardised factor loading of all items are in acceptable range. Hence, CFA validated the subscale academic support of Institutional Support Scale.

TABLE 3.26: STANDARDISED FACTOR LOADINGS OF THE ITEMS OF ACADEMIC SUPPORT OF INSTITUTIONAL SUPPORT SCALE

Dimension	S. No.	Item No.	Standardised Factor Loading
Academic Advising	1	1	0.566
	2	2	0.512
	3	3	0.586
	4	4	0.647
	5	5	0.563
	6	14	0.597
	7	15	0.653
Learning Support	8	8	0.561
	9	9	0.670
	10	10	0.577
	11	11	0.666

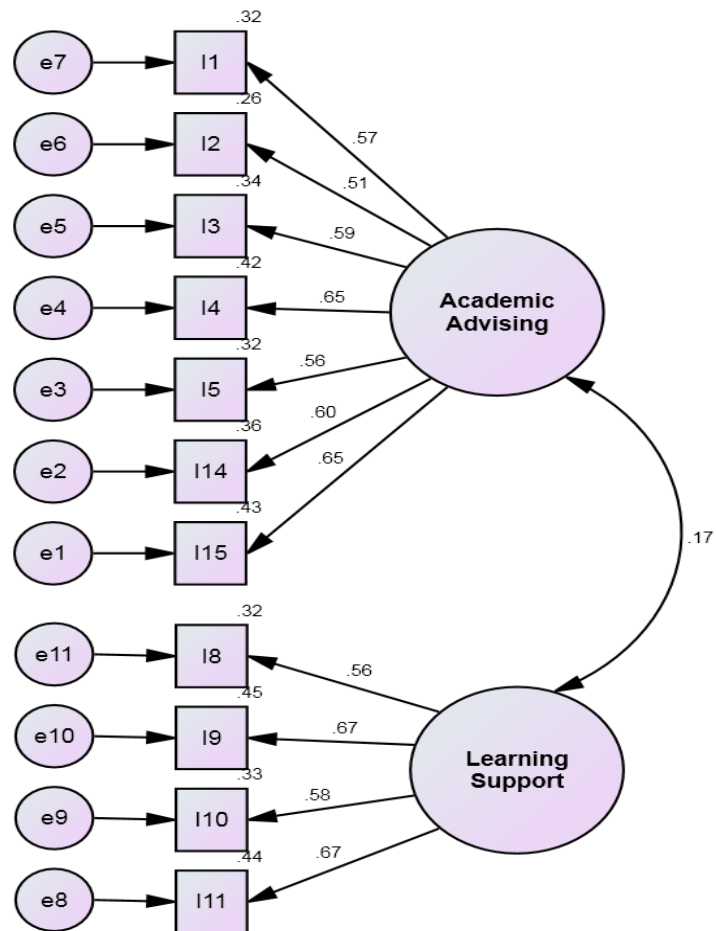


FIGURE 3.8: PATH DIAGRAM OF ACADEMIC SUPPORT OF INSTITUTIONAL SUPPORT SCALE

2) Part B (Non-Academic Support)

Initially, in order to check the adequacy of the data before proceeding to factor analysis, Kaiser-Meyer-Olkin (KMO) and Bartlett’s Test of Sphericity were conducted. The result obtained showed KMO value was 0.873. For this tool, KMO was 0.873 indicating an acceptable value which shows that data was adequate. Apart from this, the statistic of Bartlett’s Test of Sphericity i.e. $\chi^2 (45, N = 360) = 990.697$, $p = 0.000$, which is found significant. Hence, data was adequate for applying confirmatory factor analysis. The obtained measures of fit are presented in the following Table 3.27 which shows the acceptable fitness of the model.

TABLE 3.27: MEASURES OF FIT FOR NON-ACADEMIC SUPPORT OF INSTITUTIONAL SUPPORT SCALE

Measure Fit	Value
χ^2 / df	2.664
Root Mean Square Error of Approximation (RMSEA)	0.068
Goodness of Fit Index (GFI)	0.954
Root Mean Square Residual (RMR)	0.045
Bollen 89 Index, Incremental Fit Index (IFI)	0.943
Comparative Fit Index (CFI)	0.943
Normed Fit Index (NFI)	0.912
Relative Fit Index (RFI)	0.880
Tucker- Lewis Index (TLI)	0.922

The results of CFA revealed that the hypothesized model of non-academic subscale of Institutional Support Scale was found to provide an excellent fit to the data with $\chi^2 (33, N= 360) = 87.928$, $p= 0.000$ (significant, $p<.001$), $\chi^2 / df = 2.664$ and Goodness- of fit index, $GFI = 0.954$, which is showing good fit to the data. Along with it, statistics of Root Mean Square Error of Approximation (RMSEA) = 0.068 which is also acceptable and advocate good model fit (Browne and Cudeck, 1993). However, statistics viz. Root Mean Square Residual (RMR) = 0.045, Bollen 89 Index, Incremental Fit Index (IFI) = 0.943, Comparative Fit Index (CFI) = 0.943, Normed Fit Index (NFI) = 0.912, Relative Fit Index (RFI) = 0.880, Tucker- Lewis Index (TLI) = 0.922. Hence, all values are satisfying the threshold criteria and contributing in confirming the model fit. Additionally, it is clear from the following Table 3.28 and Figure 3.9 that standardized factor loadings of all items are in acceptable range. Hence, CFA validated the subscale non-academic of Institutional Support Scale.

TABLE 3.28: STANDARDISED FACTOR LOADINGS OF THE ITEMS OF NON-ACADEMIC SUPPORT OF INSTITUTIONAL SUPPORT SCALE

Dimension	S. No.	Item No.	Standardised Factor Loading
Informational Support	1	3	0.539
	2	4	0.629
	3	5	0.491
	4	6	0.610
	5	13	0.733
	6	24	0.661
Care and Encouragement	7	9	0.576
	8	18	0.632
	9	20	0.688
	10	21	0.519

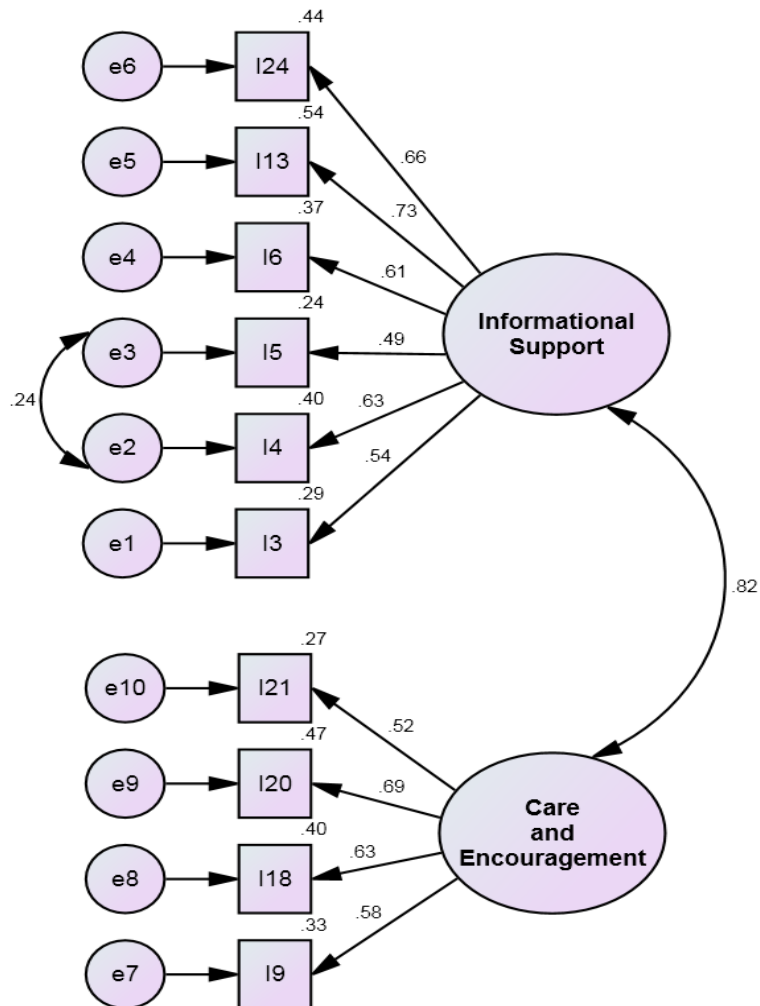


FIGURE 3.9: PATH DIAGRAM OF NON-ACADEMIC SUPPORT OF INSTITUTIONAL SUPPORT SCALE

3) Part C (Institutional Facilities)

Initially, in order to check the adequacy of the data before proceeding to factor analysis, Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity were conducted. For this subscale, KMO was 0.771 indicating an acceptable value which shows that data was adequate. Apart from this, the statistic of Bartlett's Test of Sphericity i.e. $\chi^2 (45, N = 360) = 824.460, p = 0.000$, which is found significant. Hence, data was adequate for conducting confirmatory factor analysis. The obtained measures of fit are presented in the following Table 3.29 which shows the acceptable fitness of the model.

TABLE 3.29: MEASURES OF FIT FOR INSTITUTIONAL FACILITIES OF INSTITUTIONAL SUPPORT SCALE

Measure Fit	Value
χ^2 / df	2.886
Root Mean Square Error of Approximation (RMSEA)	0.072
Goodness of Fit Index (GFI)	0.951
Root Mean Square Residual (RMR)	0.088
Bollen 89 Index, Incremental Fit Index (IFI)	0.925
Comparative Fit Index (CFI)	0.924
Normed Fit Index (NFI)	0.889
Relative Fit Index (RFI)	0.844
Tucker- Lewis Index (TLI)	0.892

The results of CFA revealed that the hypothesized model of institutional facilities subscale of Institutional Support Scale was found to provide an excellent fit to the data with $\chi^2 (32, N= 360) = 92.351, p= 0.000$ (significant, $p < .001$), $\chi^2 / df = 2.886$ and Goodness- of fit index, $GFI = 0.951$, which is showing good fit to the data. Along with it, statistics of Root Mean Square Error of Approximation (RMSEA) = 0.072 which is also acceptable and advocate good model fit (Browne and Cudeck, 1993). However, statistics viz. Root Mean Square Residual (RMR) = 0.088, Bollen 89 Index, Incremental Fit Index (IFI) = 0.925, Comparative Fit Index (CFI) = 0.924, Normed Fit Index (NFI) = 0.889, Relative Fit Index (RFI) = 0.844, Tucker- Lewis Index (TLI) = 0.892. Hence, all values are satisfying the threshold criteria and contributing in confirming the model fit. Additionally, it is clear from the following Table 3.30 and Figure 3.10 that standardized factor loadings of all items are in acceptable range. Hence, CFA validated the subscale institutional facilities of Institutional Support Scale.

TABLE 3.30: STANDARDISED FACTOR LOADINGS OF THE ITEMS OF INSTITUTIONAL FACILITIES OF INSTITUTIONAL SUPPORT SCALE

Dimension	S. No.	Item No.	Standardised Factor Loading
Learning Environment	1	5	0.866
	2	6	0.712
	3	7	0.674
Basic Infrastructure	4	1	0.621
	5	2	0.595
	6	3	0.495
	7	4	0.554
Extended Facilities	8	8	0.502
	9	9	0.303
	10	10	0.774

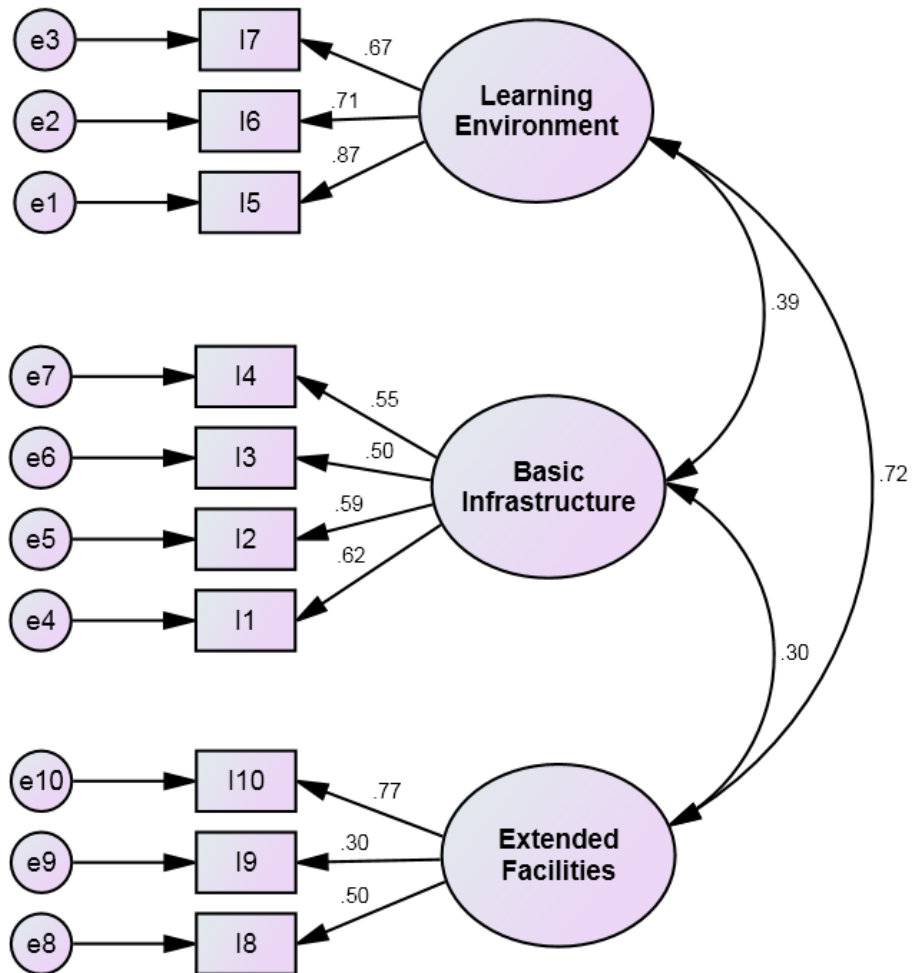


FIGURE 3.10: PATH DIAGRAM OF INSTITUTIONAL FACILITIES OF INSTITUTIONAL SUPPORT SCALE

- **RELIABILITY**

Internal consistency reliability was used to assess the consistency of results across the items within the test. Estimation of reliability of the institutional support scale was done using below mentioned methods.

- ❖ **CRONBACH'S ALPHA RELIABILITY**

To determine the internal consistency of the all subscales and their each dimension, Coefficient Alpha (Cronbach, 1951) was calculated with a sample size of 360 by using IBM SPSS version 22 computer program. The results indicated that coefficient alpha of the whole Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities) subscales was 0.745, 0.832 and 0.736 respectively which was considered as reliable score (Cronbach, 1951). Results indicated that internal consistencies for academic advising and learning support dimensions of Part A (Academic Support) were 0.786 and 0.711 respectively. Internal consistencies for informational support, and care and encouragement dimensions of Part B (Non-Academic Support) were 0.784 and 0.679 respectively. Furthermore, internal consistencies for learning environment, basic infrastructure and extended facilities dimensions of Part C (Institutional Facilities) were 0.790, 0.647 and 0.541 respectively. So, all the three subscales and their dimensions were found to be reliable and the results are presented in the following Table 3.31.

TABLE 3.31: RELIABILITY OF INSTITUTIONAL SUPPORT SCALE

S. No.	Dimension	Cronbach's Alpha	Composite
Part A (Academic Support)			
1	Academic Advising	0.786	0.789
2	Learning Support	0.711	0.713
Total		0.745	0.861
Part B (Non-Academic Support)			
1	Informational Support	0.784	0.783
2	Care and Encouragement	0.679	0.698
Total		0.832	0.855
Part C (Institutional Facilities)			
1	Learning Environment	0.79	0.797
2	Basic Infrastructure	0.647	0.655
3	Extended Facilities	0.541	0.548
Total		0.736	0.860

❖ COMPOSITE RELIABILITY

Raykov's (1997) Composite Reliability (CR) using the formula:

$$CR = \frac{(\text{Sum Total of Standardised Regression Weights})^2}{(\text{Sum Total of Standardised Regression Weights})^2 + (\text{Sum of Error Variance of terms})^2}$$

by Fornell and Larcker (1981) was obtained online using the website www.thestatisticalmind.com.

Composite Reliability (Raykov, 1997) was calculated with a sample size of 360 and the results in the above Table 3.31 indicated that the value of academic advising and learning support dimensions of Part A (Academic Support) were 0.789 and 0.713. The values of informational support and care and encouragement dimensions of Part B (Non-Academic Support) were 0.783 and 0.698. The values of learning environment, basic infrastructure and extended facilities dimensions of Part C (Institutional Facilities) were 0.797, 0.655, and 0.548. The composite reliability values for academic support, non-academic support and institutional facilities subscales of the institutional support scale were 0.861, 0.855 and 0.860 respectively.

3.3.1.2.3 FINAL DRAFT OF THE SCALE

Institutional support scale was prepared and standardized to assess secondary school students' perceptions of institutional support provided to them in schools in Punjab. An initial draft of 16 items in Part A (Academic Support), 24 items in Part B (Non-Academic Support) and 28 items in Part C (Institutional Facilities) was prepared after developing the conceptual framework. While determining face validity on the basis of subject experts' opinions, in total one item from Part A (Academic Support) and three items from Part C (Institutional Facilities) were deleted from the initial draft. Further, content validity index was calculated with remaining 15, 24, 25 items in Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities) respectively which lead to the deletion of total two items from Part A (Academic Support), three items Part B (Non-Academic Support) and one item from Part C (Institutional Facilities) from the draft of the scale. Next, pilot study was conducted with a sample size of 360 students. In order to build up the final scale, discrimination index was measured to find out the discriminatory power of remaining 13, 21, 24 items in Part A (Academic Support),

Part B (Non-Academic Support) and Part C (Institutional Facilities) respectively by calculating t-value. Two items in Part C (Institutional Facilities) were deleted. In total, 13, 21, 22 items of Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities) respectively were retained. Further, EFA was performed with a sample size of 360 on remaining 13, 21, 22 items of Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities) respectively. Further, CFA was conducted using IBM SPSS AMOS Version 20 to confirm the factor structure of institutional support scale. After EFA and CFA, 11, 10 and 10 items were retained in Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities) respectively. Cronbach's alpha reliability and Composite reliability was calculated on 11, 10 and 10 items of Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities) respectively with a sample size of 360 to confirm the internal consistency and reliability of the scale which presented acceptable results. At last, 11, 10 and 10 items were selected to be included in the final form of the Part A (Academic Support), Part B (Non-Academic Support) and Part C (Institutional Facilities) of institutional support scale. The distribution of items in different subscales and dimensions of the institutional support scale is shown in the Table 3.32.

TABLE 3.32: DIMENSION WISE DISTRIBUTION OF ITEMS IN THE INSTITUTIONAL SUPPORT SCALE

S. No.	Dimension	Positive Item Number	Negative Item Number	Total No. of Items
Subscale I: Part A (Academic Support)				
1	Academic Advising	1, 2, 3, 4, 5, 14, 15	-	7
2	Learning Support	8, 9, 10, 11	-	4
Total Items				11
Subscale II: Part B (Non-Academic Support)				
1	Informational Support	3, 4, 5, 6, 13, 24	-	6
2	Care and Encouragement	9, 18, 20, 21	-	4
Total Items				10
Subscale III: Part C (Institutional Facilities)				
1	Learning Environment	5, 7	6	3
2	Basic Infrastructure	1, 3	2, 4	4
3	Extended Facilities	9	8, 10	3
Total Items				10

3.3.1.2.4 SCORING PROCEDURE

Institutional support has “5 point Likert type scale”. Each item has 5 response options namely: “Strongly Agree”, “Agree”, “Neutral”, “Disagree”, and “Strongly Disagree”. For obtaining the value of score for each item, each response of the item has assigned number.

TABLE 3.33: SCORING PROCEDURE FOR INSTITUTIONAL SUPPORT SCALE

Part A (Academic Support)					
Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Positive	5	4	3	2	1
Part B (Non-Academic Support)					
Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Positive	5	4	3	2	1
Part C (Institutional Facilities)					
Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Positive	5	4	3	2	1
Negative	1	2	3	4	5

All the items prepared in Part A (Academic Support) and Part B (Non-Academic Support) are positive in nature and scored as 5,4,3,2 and 1. The items prepared in Part C (Institutional Facilities) include positive items (1,3,5,7,9) which are scored as 5,4,3,2 and 1 and negative items (2,4,6,8,10) which are scored as 1,2,3,4 and 5. Scoring of items has been done on the basis of the above Table 3.33.

3.3.2 TOOLS ADAPTED

The following tools have been revalidated and administered in the present study:

3.3.2.1 Teacher Credibility Scale by McCroskey and Teven (1999)

3.3.2.2 Socially Responsible Leadership Scale (SRLS R-2) by Dugan (2006)

3.3.2.3 Achievement Motivation Scale (n-Ach) by Deo-Mohan (2011)

3.3.2.1 TEACHER CREDIBILITY SCALE BY MCCROSKEY AND TEVEN (1999)

McCroskey and Teven (1999) have taken Teven and McCroskey’s (1997) study which measured students’ perceptions of their teachers’ credibility as the post

hoc pilot study for their research. They conducted their study “Goodwill: A Reexamination of the Construct and its Measurement” on 783 undergraduate students with the average age of 19 years at Eastern University to design teacher credibility scale. Teacher Credibility Scale (McCroskey & Teven, 1999) has three dimensions namely competence, caring/goodwill and trustworthiness and consisted of 18 seven-point bipolar adjective items (e.g., untrained/trained and moral/immoral). According to McCroskey and Teven (1999), teacher credibility scale is the most complete measure which includes scales for three dimensions: competence, trustworthiness, and goodwill/caring and these are measures of constructs which are parallel to those theorized by Aristotle in ‘The Rhetoric’ (1960). They employed oblique factor analysis to develop this measure which generated correlated dimensions. The three measures i.e. competence, caring/goodwill and trustworthiness represented unique constructs yet intercorrelated constructs and comprised 6 items in each. This scale provided three separate total scores, one for each dimension. Competence factor has been designed to assess qualification, expertness, intelligence, authoritative. Caring/Goodwill has been designed to assess understanding, empathy, responsiveness. Trustworthiness has been designed to assess character, sagacity, safety, honesty. The item distribution is given in Table 3.34.

TABLE 3.34: DISTRIBUTION OF ITEMS OF TEACHER CREDIBILITY SCALE

S. No.	Dimension	Positive Item No.	Negative Item No.	Total Items
1	Competence	2, 7, 13	1, 11, 16	6
2	Caring/Goodwill	8, 15, 18	3, 5, 9,	6
3	Trustworthiness	6, 14, 17	4, 10, 12	6
Total				18

3.3.2.1.1 RELIABILITY

McCroskey and Teven (1999) reported the reliability with a sample size of 783 of each dimension of Teacher Credibility Scale. Alpha coefficient of internal consistency reliability for the factors namely competence was 0.85, caring/goodwill was 0.92 and for trustworthiness was 0.92. Alpha coefficient of internal consistency reliability for the whole measure was 0.94. They reported the correlations of the

dimension scores with the overall credibility score as 0.78, 0.92 and 0.89 for competence, trustworthiness and caring/goodwill respectively.

3.3.2.1.2 VALIDITY

McCroskey and Teven (1999) employed oblique factor analysis with a sample size of 783 to develop this measure which generated correlated dimensions. They reported the value for Kaiser (1970) Measure of Sampling Adequacy (MSA) as above 0.90. The results of oblique (promax) rotated factor analysis are presented in the Table 3.35.

**TABLE 3.35: FACTOR STRUCTURE OF TEACHER CREDIBILITY SCALE
(MCCROSKEY AND TEVEN, 1999)**

S. No.	Item No.	Factor Loading	S. No.	Item No.	Factor Loading	S. No.	Item No.	Factor Loading
Factor-Competence Eigen value- 3.2			Factor- Caring/Goodwill Eigen value- 4.0			Factor-Trustworthiness Eigen value- 3.8		
1	1	0.77	1	3	0.83	1	4	0.78
2	2	0.55	2	5	0.80	2	6	0.82
3	7	0.71	3	8	0.62	3	10	0.90
4	11	0.67	4	9	0.82	4	12	0.85
5	13	0.70	5	15	0.87	5	14	0.77
6	16	0.74	6	18	0.80	6	17	0.77

3.3.2.1.3 ADMINISTRATION AND SCORING OF TEACHER CREDIBILITY SCALE

Teacher Credibility Scale (McCroskey & Teven, 1999) has three dimensions namely competence, caring/goodwill and trustworthiness, and consists of 18 seven-point bipolar adjective items (e.g., untrained/trained and moral/ immoral). The numbers between the pairs of adjectives are 1, 2, 3, 4, 5, 6 and 7. Numbers 1 and 7 indicate a very strong feeling. Numbers 2 and 6 indicate a strong feeling. Numbers 3 and 5 indicate a fairly weak feeling. Number 4 indicates you are undecided. The respondents are required to indicate their impression or feelings about their teacher by circling the appropriate number between the pairs of adjectives. The closer the number is to an adjective, the more certain the respondent in his/her evaluation. The score for each item is to be computed as given in seven point scale except some bold

questions i.e. 1, 3, 4, 5, 9, 10, 11, 12, 16 given in the manual as their scoring has to be reverse. Accordingly, 1 becomes 7, 2 become 6, 3 becomes 5, 4 becomes 4, 5 becomes 3, 6 becomes 2, and 7 becomes 1. The format to code the positive items and recode the above mentioned bold questions are given in the Table 3.36.

TABLE 3.36: SCORING OF TEACHER CREDIBILITY SCALE

S. No.	Seven Point Scale	Positive Scoring	Negative Scoring
1	1	1	7
2	2	2	6
3	3	3	5
4	4	4	4
5	5	5	3
6	6	6	2
7	7	7	1

3.3.2.1.4 VALIDATION OF TEACHER CREDIBILITY SCALE BY MCCROSKEY AND TEVEN (1999)

Teacher Credibility Scale was constructed and standardised by McCroskey and Teven (1999) on the population of western culture including undergraduate students with the average age of 19 years, hence it was very much required to validate the current scale on the population of secondary school students of Indian culture within the age range of 13-17 years. Apart from this, review of related literature revealed that very less research has been conducted in India by taking teacher credibility as a variable. Hence, no such scale has been constructed and validated which measure students' perceptions of teacher credibility in Indian culture. This encourages the investigator to test the appropriateness of the scale in Indian context. Validation of Teacher Credibility Scale was confirmed by confirmatory factor analysis, for checking the internal consistency of the scales, Coefficient Alpha (Cronbach, 1951) and Composite Reliability (Raykov, 1997) was computed.

- **SAMPLE**

In the present study, data was collected from 360 students of 10th class i.e. 180 from government and 180 from private schools affiliated to PSEB and CBSE

board in Jalandhar district. Thirty students were selected conveniently from each school. Thus, in total twelve schools were approached. The sample comprised of female (60.6%) and male (39.4%) students.

• **RESULTS OF CFA ANALYSIS OF TEACHER CREDIBILITY SCALE**

Teacher Credibility Scale (McCroskey & Teven, 1999) was adopted and CFA was conducted on a sample size of 360 using IBM SPSS AMOS Version 20 to confirm the factor structure of Teacher Credibility Scale and to validate it in Indian context. Initially, in order to check the adequacy of the data before proceeding to confirmatory factor analysis, Kaiser-Meyer-Olkin (KMO) and Bartlett’s Test of Sphericity were conducted. For this tool, KMO was 0.904 indicating an acceptable value which shows that data was adequate. Apart from this, the statistic of Bartlett’s Test of Sphericity i.e. $\chi^2 (66, N= 360) = 1331.019, p= 0.000$, which is found significant. Hence, data was adequate for conducting factor analysis.

After checking the adequacy of data, CFA was conducted on three dimensional scale consisting of 18 items. Here, the dimensions were correlated with each other and poor fit was obtained. In order to improve the fit, items with factor loading 0.5 or more were retained. This led to the deletion of six items reducing the total item number to twelve. Acceptable fit was obtained with these 12 items loading on three correlated dimensions, on co-varying the errors of item number 11 and 16, and item number 3 and 9 using modification indices. The obtained measures of fit are presented in the following Table 3.37 which shows the acceptable fitness of the model.

TABLE 3.37: MEASURES OF FIT FOR TEACHER CREDIBILITY SCALE

Measure Fit	Value
χ^2 / df	2.741
Root Mean Square Error of Approximation (RMSEA)	0.070
Goodness of Fit Index (GFI)	0.940
Root Mean Square Residual (RMR)	0.092
Bollen 89 Index, Incremental Fit Index (IFI)	0.934
Comparative Fit Index (CFI)	0.934
Normed Fit Index (NFI)	0.900
Relative Fit Index (RFI)	0.866
Tucker- Lewis Index (TLI)	0.910

The results of current analysis revealed that the hypothesized model of teacher credibility scale was found to provide an excellent fit to the data with χ^2 (49, N = 360) = 134.303, $p = 0.000$, significant, $p < .001$, $\chi^2 / df = 2.741$ and Goodness-of fit-index, GFI = 0.940, which is showing good fit to the data. Along with it, statistics of Root Mean Square Error of Approximation (RMSEA) = 0.070 which is also acceptable and advocate good model fit (Browne and Cudeck, 1993). Further, statistics viz. Root Mean Square Residual (RMR) = 0.092, Bollen 89 Index, Incremental Fit Index (IFI) = 0.934, Comparative Fit Index (CFI) = 0.934, Normed Fit Index (NFI) = 0.900, Relative Fit Index (RFI) = 0.866, Tucker- Lewis Index (TLI) = 0.910. Hence, all values are satisfying the threshold criteria and contributing in confirming the model fit. Additionally, it is clear from the following Table 3.38 and Figure 3.11 that standardized factor loadings of all items are in acceptable range. Hence, CFA validated Teacher Credibility Scale.

TABLE 3.38: STANDARDISED FACTOR LOADINGS OF THE ITEMS OF TEACHER CREDIBILITY SCALE

Dimension	S. No.	Item No.	Standardised Factor Loading
Competence	1	7	0.670
	2	11	0.487
	3	13	0.673
	4	16	0.486
Caring/Goodwill	5	3	0.486
	6	9	0.522
	7	15	0.524
	8	18	0.704
Trustworthiness	9	6	0.587
	10	10	0.556
	11	14	0.528
	12	17	0.706

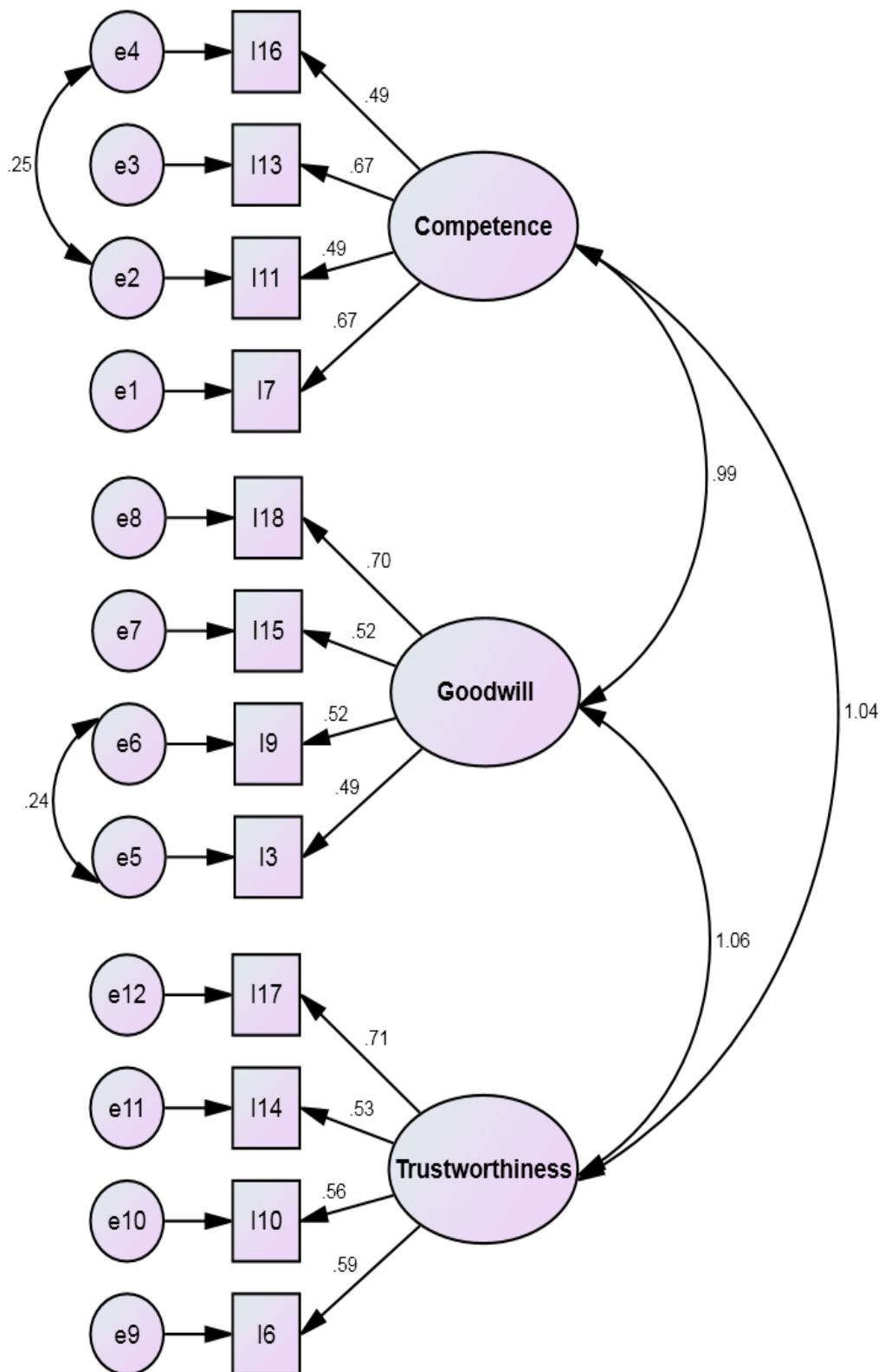


FIGURE 3.11: PATH DIAGRAM OF TEACHER CREDIBILITY SCALE

- **RELIABILITY**

Estimation of reliability of the teacher credibility scale was done using the below mentioned methods.

- ❖ **CRONBACH’S ALPHA RELIABILITY**

To determine the internal consistency of the whole scale and each dimension, Coefficient Alpha (Cronbach, 1951) was calculated with a sample size of 360 by using IBM SPSS version 22 computer program. Coefficient alpha for the whole scale was 0.859 which was considered as reliable score (Cronbach, 1951). Furthermore, internal consistencies for each dimension were as follows: competence, 0.689, caring/goodwill, 0.665, trustworthiness, 0.657. All subscales were also found to be reliable. Results are presented in Table 3.39.

TABLE 3.39: RELIABILITY OF TEACHER CREDIBILITY SCALE

S. No.	Dimension	Item No.	Total Items	Cronbach’s Alpha	Composite
1	Competence	7, 11, 13, 16	4	0.689	0.671
2	Caring/Goodwill	3, 9, 15, 18	4	0.665	0.648
3	Trustworthiness	6, 10, 14, 17	4	0.657	0.687
Total			12	0.859	0.858

- ❖ **COMPOSITE RELIABILITY**

Composite Reliability (Raykov, 1997) was calculated with a sample size of 360 and the results in the above Table 3.39 indicated that the reliability value of competence, caring/goodwill and trustworthiness dimensions of teacher credibility scale were 0.671, 0.648 and 0.687 respectively.

3.3.2.2 SOCIALLY RESPONSIBLE LEADERSHIP SCALE [SRLS-R2] BY DUGAN (2006)

The instrument SRLS-R2 (Dugan, 2006) is distributed by the National Clearinghouse for Leadership Programs [NCLP] which conducts research and assessment in leadership development to improve the practices for students and to impact their learning outcomes. SRLS-R2 is based on the Social Change Model [SCM] of leadership development. It is used for research, assessment, and education

to measure and identify leadership capacities of students. SRLS-R2 is a 68-item instrument which measures the eight C's of SCM for leadership development: consciousness of self, congruence, commitment, common purpose, collaboration, controversy with civility, and citizenship. These seven fall around one central value, change. SRLS-R2 was designed to retain the reliability of the original SRLS (Tyree, 1998). The SRLS-R2 is a set of statistically valid and reliable scales. Each of the 8 scales is comprised of 6-11 questions in Likert scale format. The item distribution is given in Table 3.40.

TABLE 3.40: DISTRIBUTION OF ITEMS OF SRLS-R2

S. No.	Scale	Positive Item No.	Negative Item No.	Total Items
1	Consciousness of Self	4, 9, 18, 22, 34, 41, 59	6, 56	9
2	Congruence	13, 27, 32, 52, 63, 64, 68	-	7
3	Commitment	23, 24, 28, 51, 53, 54	-	6
4	Common Purpose	14, 15, 19, 31, 35, 37, 58, 61, 67	-	9
5	Collaboration	10, 29, 30, 42, 48, 57, 60, 65	-	8
6	Controversy with Civility	1, 2, 3, 5, 11, 16, 49, 62	7, 21, 25	11
7	Citizenship	33, 38, 40, 44, 46, 47, 55, 66	-	8
8	Change	12, 17, 20, 39, 43, 45, 50	8, 26, 36	10
Total				68

3.3.2.2.1 RELIABILITY AND VALIDITY

Tyree (1998) created a 104-item Socially Responsible Leadership Scale [SRLS] which was a set of statistically reliable and valid scales that would measure the critical values identified in the Social Change Model of Leadership. A few years later, Appel-Silbaugh (2005) created the SRLS-Revised which resulted into the removal of 21 items from the instrument while maintaining acceptable reliabilities. Then, Dugan (2006) conducted a factor analysis using data from the pilot test of the Multi-Institutional Study of Leadership and reduced the number of items to 68 while maintaining reliability. Multi-Institutional Study of Leadership [MSL] is a very cost-effective way of conducting an institution-wise assessment which gathers the data through an internet site and research team, and provides a report of preliminary statistical analysis. As all scales have been factor analyzed to verify validity and

reliability, SRLS-R2 is a set of statistically valid and reliable scales. Dugan (2006) reported the coefficient alpha of the scales as 0.7808 for consciousness of self, 0.7927 for congruence, 0.8314 for commitment, 0.8134 for common purpose, 0.8000 for collaboration, 0.7197 for controversy with civility, 0.8945 for citizenship, and 0.8157 for change.

3.3.2.2.2 ADMINISTRATION AND SCORING OF SRLS-R2

The SRLS-R2 (Dugan, 2006) has 8 statistically valid and reliable scales namely consciousness of self, congruence, commitment, common purpose, collaboration, controversy with civility, citizenship and change which consist 9, 7, 6, 9, 8, 11, 8 and 10 items respectively. The questions in each of the scales are in Likert scale format: “Strongly Disagree”, “Disagree”, “Neither Agree nor Disagree”, “Agree” and “Strongly Agree”. All the positive items are scored as 1, 2, 3, 4 and 5. The negative items are scored as 5,4,3,2 and 1. Respondents are asked to indicate their agreement or disagreement with each of statements by circling the number that most closely represents their opinion about that statement. The format to code the positive items and negative items are given in the Table 3.41.

TABLE 3.41: SCORING OF SRLS-R2

S. No.	Likert Scale	Positive Scoring	Negative Scoring
1	Strongly Disagree	1	5
2	Disagree	2	4
3	Neither Agree nor Disagree	3	3
4	Agree	4	2
5	Strongly Agree	5	1

3.3.2.2.3 VALIDATION OF SRLS-R2 BY DUGAN (2006)

SRLS-R2 was constructed and standardised by Dugan (2006) by using data from the pilot test of the MSL on the population of western culture, hence it was very much required to validate the current scale on the population of secondary school students of Indian culture. Apart from this, review of related literature revealed that very less research has been conducted in India by taking leadership development as a variable. Hence, no such scale has been constructed and validated

which measure the perceptions of leadership development for respondents in Indian culture. This encourages the investigator to test the appropriateness of the scale in Indian context. The tool was directly used for data collection. The validation of the tool was done on total sample of the study. Validation of SRLS-R2 was confirmed by confirmatory factor analysis, for checking the internal consistency of the scales, Coefficient Alpha (Cronbach, 1951) and Composite Reliability (Raykov, 1997) was computed.

- **RESULTS OF CFA ANALYSIS OF SRLS-R2**

SRLS-R2 (Dugan, 2006) was adopted and confirmatory factor analysis was conducted on a sample size of 1071 using IBM SPSS AMOS Version 20 to confirm the factor structure of SRLS-R2 and to validate it in Indian context. Initially, in order to check the adequacy of the data before proceeding to CFA, Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity were conducted. For this tool, KMO was 0.922 indicating an acceptable value which shows that data was adequate. Apart from this, the statistic of Bartlett's Test of Sphericity i.e. χ^2 (2278, N= 1071) = 15773.553, $p = 0.000$, which is found significant. Hence, data was adequate for CFA. After checking the adequacy of data, CFA was conducted on eight dimensional scale consisting of 68 items. Here, the dimensions were correlated with each other and acceptable fitness of the model was obtained. The obtained measures of fit are presented in Table 3.42 which shows the acceptable fitness of the model.

TABLE 3.42: MEASURES OF FIT FOR SRLS-R2

Measure Fit	Value
χ^2 / df	2.572
Root Mean Square Error of Approximation (RMSEA)	0.038
Goodness of Fit Index (GFI)	0.854
Root Mean Square Residual (RMR)	0.048
Bollen 89 Index, Incremental Fit Index (IFI)	0.754
Comparative Fit Index (CFI)	0.752
Normed Fit Index (NFI)	0.652
Relative Fit Index (RFI)	0.637
Tucker- Lewis Index (TLI)	0.741

The results of current analysis revealed that the hypothesized model of SRLS-R2 was found to provide an excellent fit to the data with χ^2 (2182, N = 1071) = 5613.054, $p = 0.000$, significant, $p < .001$, $\chi^2 / df = 2.572$ and Goodness-of-fit-index, GFI = 0.854, which is showing good fit to the data. Along with it, statistics of Root Mean Square Error of Approximation (RMSEA) = 0.038 which is also acceptable and advocate good model fit (Browne and Cudeck, 1993). Further, statistics viz. Root Mean Square Residual (RMR) = 0.048, Bollen 89 Index, Incremental Fit Index (IFI) = 0.754, Comparative Fit Index (CFI) = 0.752, Normed Fit Index (NFI) = 0.652, Relative Fit Index (RFI) = 0.637, Tucker- Lewis Index (TLI) = 0.741. Hence, all values are satisfying the threshold criteria and contributing in confirming the model fit. Additionally, it is clear from the following Table 3.43 and Figure 3.12 that standardized factor loadings of all items are in acceptable range. Hence, confirmatory factor analysis validated SRLS-R2.

TABLE 3.43: STANDARDISED FACTOR LOADINGS OF THE ITEMS OF SRLS-R2

Dimension	Item No.	Standardised Factor Loading
Consciousness of Self	4	0.360
	6	0.040
	9	0.395
	18	0.421
	22	0.510
	34	0.484
	41	0.460
	56	0.034
	59	0.471
Congruence	13	0.435
	27	0.435
	32	0.506
	52	0.503
	63	0.478
	64	0.510
	68	0.452
Commitment	23	0.441
	24	0.438
	28	0.497
	51	0.456
	53	0.524
	54	0.552

Contd.

Dimension	Item No.	Standardised Factor Loading
Common Purpose	14	0.468
	15	0.315
	19	0.483
	31	0.359
	35	0.441
	37	0.385
	58	0.495
	61	0.524
	67	0.506
Collaboration	10	0.419
	29	0.443
	30	0.441
	42	0.430
	48	0.503
	57	0.429
	60	0.480
65	0.364	
Controversy With Civility	1	0.381
	2	0.366
	3	0.527
	5	0.466
	7	-0.142
	11	0.463
	16	0.525
	21	-0.057
	25	-0.312
	49	0.295
	62	0.342
Citizenship	33	0.529
	38	0.503
	40	0.551
	44	0.505
	46	0.523
	47	0.540
	55	0.525
	66	0.539
Change	8	-0.009
	12	0.379
	17	0.352
	20	0.362
	26	-0.058
	36	-0.014
	39	0.517
	43	0.468
	45	0.498
	50	0.375

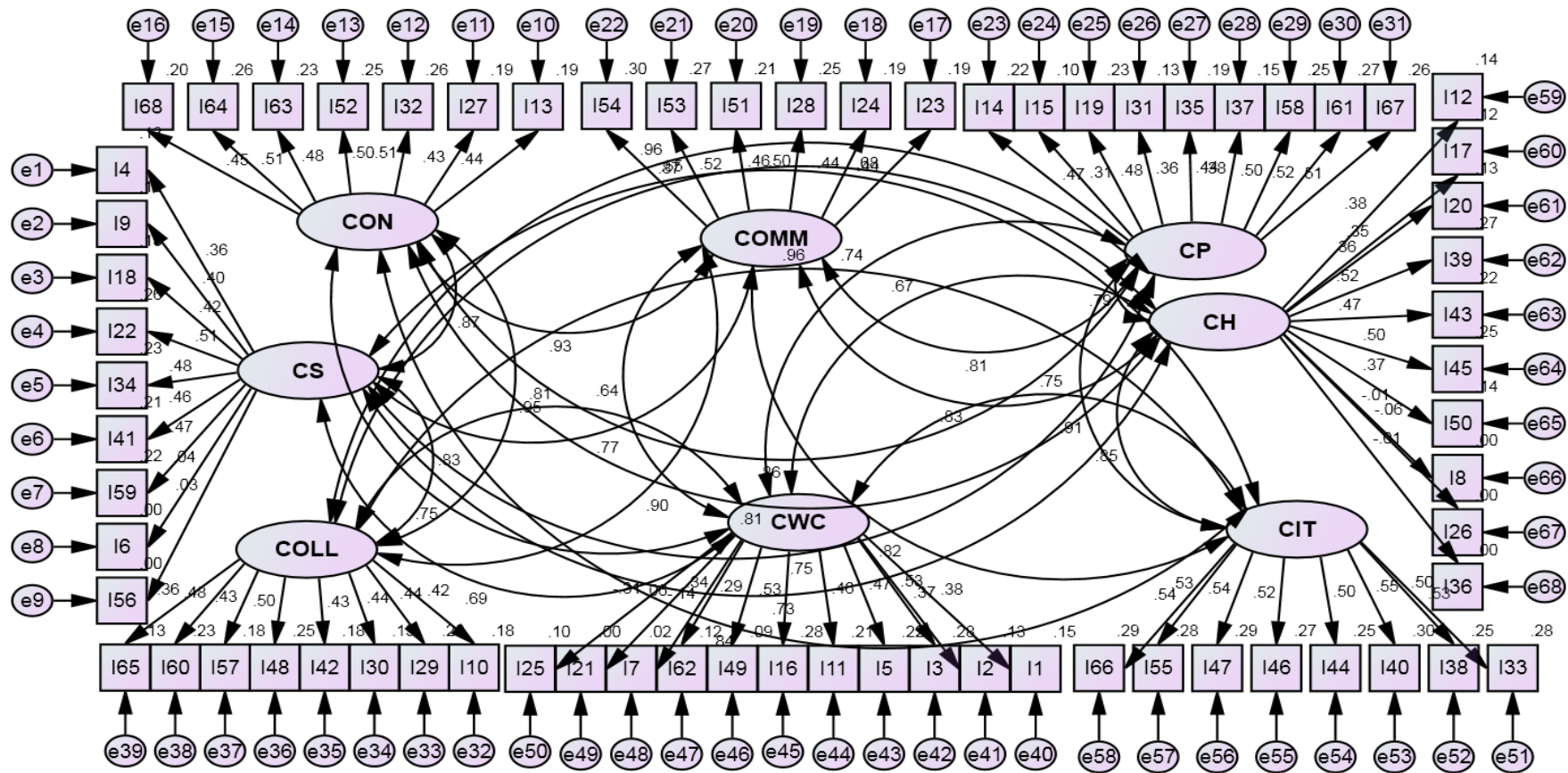


FIGURE 3.12: PATH DIAGRAM OF SRLS-R2

(CS-consciousness of self, CON-congruence, COMM-commitment, Cp-common purpose, COLL-collaboration, CWC-controversy with civility, CIT-citizenship, CH-change)

- **RELIABILITY**

Estimation of reliability of the SRLS- R2 was done using the below mentioned methods.

- ❖ **CRONBACH’S ALPHA RELIABILITY**

To determine the internal consistency of the all eight scales, Coefficient Alpha (Cronbach, 1951) was calculated with a sample size of 1071 by using IBM SPSS version 22 computer program. Coefficient alpha for the whole tool was 0.898 which was considered as reliable score (Cronbach, 1951). Coefficient alpha for the scales namely consciousness of self, congruence, commitment, common purpose, collaboration, controversy with civility, citizenship and change were 0.533, 0.666, 0.647, 0.676, 0.655, 0.413, 0.753 and 0.480 respectively. All scales were also found to be reliable. The reliability comparisons are provided in Table 3.44.

TABLE 3.44: RELIABILITY OF SRLS-R2

S. No.	Scale	Composite Values	Cronbach’s Alpha Current Values	Cronbach’s Alpha Original Scale Values	Total Items
1	Consciousness of Self	0.570	0.533	0.781	9
2	Congruence	0.670	0.666	0.791	7
3	Commitment	0.649	0.647	0.831	6
4	Common Purpose	0.687	0.676	0.813	9
5	Collaboration	0.656	0.655	0.800	8
6	Controversy with Civility	0.615	0.413	0.720	11
7	Citizenship	0.755	0.753	0.895	8
8	Change	0.513	0.480	0.816	10
Total					68

- ❖ **COMPOSITE RELIABILITY**

Composite Reliability (Raykov, 1997) was calculated with a sample size of 1071 and the results in the above Table 3.44 indicated that the value of consciousness of self, congruence, commitment, common purpose, collaboration, controversy with civility, citizenship and change dimensions of SRLS-R2 were 0.570, 0.670, 0.649, 0.687, 0.656, 0.615, 0.755 and 0.513 respectively.

3.3.2.3 ACHIEVEMENT MOTIVATION SCALE (n-Ach) BY DEO-MOHAN (2011)

Achievement Motivation Scale (n-Ach) is a self-rating type questionnaire developed by Deo-Mohan (2011). It is designed to study the factors suitable for measuring the achievement motivation. It measures the achievement motivation of boys and girls, and has no age-limit. It consists of 15 factors which have worked as a base to prepare the 50 items in this scale which are given in Table 3.45.

TABLE 3.45: DISTRIBUTION OF ITEMS OF ACHIEVEMENT MOTIVATION SCALE

S. No.	Factor	Total Items
1	Academic motivation	4
2	Need for achievement	4
3	Academic challenge	4
4	Achievement anxiety	1
5	Importance of grades/marks	2
6	Meaningfulness of task	4
7	Relevance of school/college to future goals	2
8	Attitude towards education	4
9	Work methods	5
10	Attitude towards teachers	3
11	Interpersonal relations	4
12	Individual concern	2
13	General interests	4
14	Dramatics	2
15	Sports etc.	5
	Total	50

3.3.2.3.1 RELIABILITY

Deo-Mohan (2011) used test-retest method to obtain the reliability coefficient of the scale. They have taken different sets of sample and repeated the administration of the scale on several occasions which are given in Table 3.46.

TABLE 3.46: RELIABILITY OF ACHIEVEMENT MOTIVATION SCALE

Sample	N	Interval	R	Level of Significance
Mixed group	51	4 weeks	0.69	0.01
Males	33	5-6 Weeks	0.67	0.01
Females	50	5-6 Weeks	0.78	0.01

3.3.2.3.2 VALIDITY

Deo-Mohan (2011) employed the high-low discrimination method to validate the whole measure. Further, the scale was also used for validating the projective test of Achievement Motivation. They reported the value of 0.54 as the coefficient of correlation between Achievement Motivation Scale and Projective Test. At last, they correlated the scores of Achievement Motivation Scale with the scores obtained by administering the Aberdeen Academic Motivation Inventory of Entwistle (1968) and the reported value of coefficient of correlation as 0.75.

3.3.2.3.3 ADMINISTRATION AND SCORING OF ACHIEVEMENT MOTIVATION SCALE

Achievement Motivation Scale can be administered individually as well as in a group of about 25-30 subjects. It is a self-rating type questionnaire with five points to rate and comprised of 50 items of which 13 are negative and 37 are positive.

TABLE 3.47: DISTRIBUTION OF POSITIVE AND NEGATIVE ITEMS OF ACHIEVEMENT MOTIVATION SCALE

Response	Item No.	Total Items
Positive	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 15, 16, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33, 35, 36, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50	37
Negative	1, 12, 13, 14, 17, 18, 19, 20, 21, 22, 32, 34, 37	13
	Total	50

All items are in the form of statements, for every statement the possible responses have divided into five categories i.e. always, frequently, sometimes, rarely and never. The positive items are to be scored 4, 3, 2, 1 and 0 and the negative items are to be scored 0, 1, 2, 3 and 4 for the categories of always, frequently, sometimes,

rarely and never respectively. The total score is the summation of all the positive and negative items scores.

TABLE 3.48: SCORING OF ACHIEVEMENT MOTIVATION SCALE

Statement	Always	Frequently	Sometimes	Rarely	Never
Positive	4	3	2	1	0
Negative	0	1	2	3	4

3.3.2.3.4 VALIDATION OF ACHIEVEMENT MOTIVATION SCALE (n-Ach) BY DEO-MOHAN (2011)

Achievement Motivation Scale (n-Ach) was developed by Deo-Mohan (2011). They have designed this scale to study the factors suitable for measuring the achievement motivation of boys and girls. They have considered 15 factors to prepare the 50 items in this scale. Number of total items in each factor was given but a particular item number belonging to which factor was not mentioned. Further, they have not conducted factor analysis to develop Achievement Motivation Scale and have not given any construct of achievement motivation. So in order to redefine the factors by keeping in mind the nature of the items under that construct, the researcher has conducted factor analysis. Validation of Achievement Motivation Scale was confirmed by conducting exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) and for checking the internal consistency of the scales, Coefficient Alpha (Cronbach, 1951) and Composite Reliability (Raykov, 1997) were computed.

- **SAMPLE**

Validation of Achievement Motivation Scale was done at two stages. In stage one, the validation of the tool was done on the sample of 360 students of pilot study. At this stage, exploratory factor analysis (EFA) was conducted and Coefficient Alpha (Cronbach, 1951) was computed. In stage two, validation of the tool was done on the total sample of the study. At this stage, confirmatory factor analysis (CFA) was conducted and Composite Reliability (Raykov, 1997) was computed.

- **PROCEDURE OF CONDUCTING EXPLORATORY FACTOR ANALYSIS**

To measure the construct validity of Achievement Motivation Scale, EFA was conducted using IBM SPSS version 22 computer program with a sample size of 360 on 50 items and 11 factors were extracted. It was found that item number 3, 5, 10, 36, 40, 43, 1, 21, 13, 50, 17, 22, 49, and 23 were not having any value in component matrix and rotated component matrix did not come out, so these items were removed. Five factors out of eleven factors were having less than three items, so, factor analysis was again conducted on 36 items with six fixed factors to be extracted. Further it was found that factor 4, 5 and 6 were having low reliability, so, again factor analysis was conducted on 36 items fixing five factors. Rotated component matrix did not come out and item number 45 and 37 got deleted because of not having value in component matrix. Successive EFA was conducted on 34 items fixing five factors. Rotated component matrix and acceptable results were obtained.

- **RESULTS OF KAISER-MEYER-OLKIN (KMO)**

KMO test was conducted to check the suitability of data and measure the adequacy of the sample for factor analysis. It measures the proportion of variance among variables and the lower proportion is considered more suitable for factor analysis. Kaiser (1974) has interpreted the values of KMO from 0.80 to 0.89 as meritorious. For this tool, the result obtained shows that, KMO is 0.842 indicating an acceptable value which shows that data is adequate.

- **RESULTS OF BARTLETT'S TEST OF SPHERICITY**

Bartlett's Test of Sphericity is also a measure of sampling adequacy used to examine the appropriateness of factor analysis and check the significance, validity and suitability of the data. So, for this tool, statistic of Bartlett's Test of Sphericity is 0.000 which proves the value as significant.

- RESULTS OF EXPLORATORY FACTOR ANALYSIS OF ACHIEVEMENT MOTIVATION SCALE**

Five factors contributing a total of 40.143% variance and producing loadings between 0.310-0.739 were extracted by computing principal component analysis and varimax rotation and scree plot in exploratory factor analysis. The first factor and subscale was named as Work Methods which consisted of ten items i.e. item no. 2 (I pay full attention to the work in the class), 9, 11, 26, 27, 28, 29, 35, 41, and 34. The second factor and subscale was named as Academic Challenge which consisted of nine items i.e. item no. 6 (I set standards for myself and then strive to achieve them), 7, 8, 15, 16, 24, 31, 33, and 38. The third factor and subscale was named as Attitude Towards Education and Teachers which consisted of seven items i.e. item no. 25 (I feel very much frustrated if I do not get a chance to complete in the field of my choice), 12, 14, 18, 19, 20, 32. The fourth factor and subscale was named as Sports and Dramatics which consisted of four items i.e. item no. 44 (I like to compete in dramatics), 46, 47, 48. The fifth factor and subscale was named as General Interests which consisted of four items i.e. item no. 4 (I love to read more and more to find unknown regions of knowledge), 30, 39, 42. The results are presented in Figure 3.13 and Table 3.49.

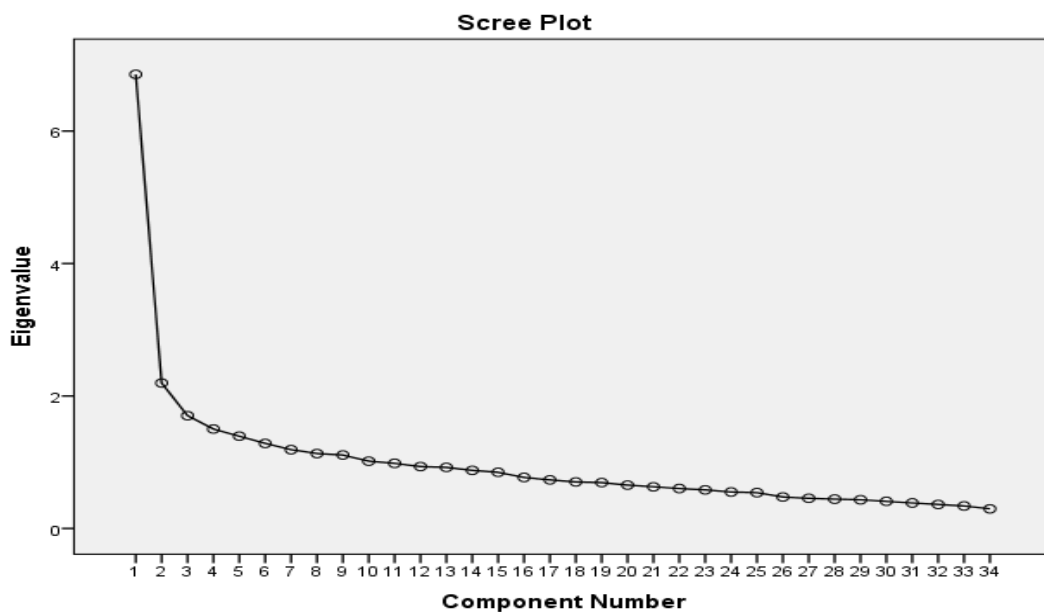


FIGURE 3.13: SCREE PLOT OF ACHIEVEMENT MOTIVATION SCALE

TABLE 3.49: FACTOR STRUCTURE OF ACHIEVEMENT MOTIVATION SCALE

S. No.	Subscale	Factor Loading
	Subscale 1: Work methods Eigen Value = 3.621 % of Variance= 10.650	
1	Item No. 2 I pay full attention to the work in the class.	0.477
2	Item No. 9 I work hard for hours together to be successful in whatever I undertake.	0.503
3	Item No. 11 I aspire to get excellent results in all academic competitions.	0.420
4	Item No. 26 I regularly take down notes in the class and complete my assignments.	0.429
5	Item No. 27 I plan to study carefully all the year round in an effort to get good marks in all the subjects in all the tests.	0.673
6	Item No. 28 I believe in work first and play later.	0.458
7	Item No. 29 I do a lot of preparation at home for the next day's work in the class.	0.433
8	Item No. 35 It is true that my teachers think of me as a sincere and hard working student.	0.634
9	Item No. 41 I try to get associated with top most persons in the field of my choice.	0.472
10	Item No. 34 My friends consider me dull and shirker.	0.356
	Subscale 2: Academic Challenge Eigen Value = 3.373 % of Variance= 9.920	
11	Item No. 6 I set standards for myself and then strive to achieve them.	0.362
12	Item No. 7 I wish to specialize and become top most in the field of my liking.	0.419
13	Item No. 8 I like to experiment and create new things and surprise people.	0.548
14	Item No. 15 On getting low marks, I feel disappointed and determine to work hard to do better next time.	0.713
15	Item No. 16 I think, I find my lessons meaningful and interesting.	0.322
16	Item No. 24 I agree that the present course of my study will help making my future life a success.	0.605
17	Item No. 31 I think my teachers are competent in their work.	0.718
18	Item No. 33 I try my utmost to please my teacher through work and not through flattery.	0.31
19	Item No. 38 I wish to carry my mission forward inspite of facing a lot of criticism.	0.37
	Subscale 3: Attitude Towards Education and Teachers Eigen Value = 2.791 % of Variance= 8.208	
20	Item No. 25 I feel very much frustrated if I do not get a chance to complete in the field of my choice.	0.430
21	Item No. 12 I am ready to leave the job half done and try a new one.	0.371

Contd.

S. No.	Subscale	Factor Loading
22	Item No. 14 I prefer to go to a party rather than prepare for an examination next week.	0.514
23	Item No. 18 I think, it is better to gossip away in the canteen than to attend the classes.	0.698
24	Item No. 19 When the teacher is teaching, I like to read stories/novels/comics or make cartoons in the class.	0.661
25	Item No. 20 The school/college haunts me and I want to leave it at the very first opportunity.	0.643
26	Item No. 32 I like to create nuisance in the class and annoy the teacher.	0.511
	Subscale 4: Sports and Dramatics Eigen Value = 1.937 % of Variance= 5.698	
27	Item No. 44 I like to compete in dramatics.	0.443
28	Item No. 46 I have a strong desire to be a champion in games/sports/athletics.	0.692
29	Item No. 47 I have tried to get in the sports team of my school/college, to represent my team in other states or countries.	0.739
30	Item No. 48 I believe sports develop initiative, leadership and discipline.	0.475
	Subscale 5: General Interests Eigen Value = 1.927 % of Variance= 5.668	
31	Item No. 4 I love to read more and more to find unknown regions of knowledge.	0.312
32	Item No. 30 I like to ask questions regarding every information given in tables and charts in the books rather than leave them as such and read further.	0.472
33	Item No. 39 I think of life to be an intellectual challenge.	0.502
34	Item No. 42 I love to have some adventure in my leisure hour.	0.614

- **PROCEDURE OF CONDUCTING CONFIRMATORY FACTOR ANALYSIS**

Further, CFA was conducted using IBM SPSS AMOS Version 20 with a sample size of 1071 on 34 items and five dimensions to confirm the factor structure of Achievement Motivation Scale. Acceptable fit was obtained by correlating five dimensions and co-varying the errors of item number 18 and 20, and item number 31 and 33 using modification indices.

- **RESULTS OF CONFIRMATORY FACTOR ANALYSIS OF ACHIEVEMENT MOTIVATION SCALE**

Achievement Motivation Scale (n-Ach) (Deo-Mohan, 2011) was adopted and CFA was conducted on a sample size of 1071 to validate it. Initially, in order to

check the adequacy of the data before proceeding to confirmatory factor analysis, Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity were conducted. For this tool, KMO was 0.888 indicating an acceptable value which shows that data was adequate. Apart from this, the statistic of Bartlett's Test of Sphericity i.e. χ^2 (561, N= 1071) = 6106.555, p= 0.000, which is found significant. Hence, data was adequate for conducting factor analysis. The obtained measures of fit are presented in Table 3.50 which shows the acceptable fitness of the model.

TABLE 3.50: MEASURES OF FIT FOR ACHIEVEMENT MOTIVATION SCALE

Measure Fit	Value
χ^2 / df	2.384
Root Mean Square Error of Approximation (RMSEA)	0.036
Goodness of Fit Index (GFI)	0.936
Root Mean Square Residual (RMR)	0.054
Bollen 89 Index, Incremental Fit Index (IFI)	0.874
Comparative Fit Index (CFI)	0.873
Normed Fit Index (NFI)	0.801
Relative Fit Index (RFI)	0.783
Tucker- Lewis Index (TLI)	0.862

The results of current analysis revealed that the hypothesized model of achievement motivation scale was found to provide an excellent fit to the data with χ^2 (515, N = 1071) = 1228.013, p = 0.000, significant, p<.001), χ^2 / df = 2.384 and Goodness-of fit-index, GFI =0.936, which is showing good fit to the data. Along with it, statistics of Root Mean Square Error of Approximation (RMSEA) = 0.036 which is also acceptable and advocate good model fit (Browne and Cudeck, 1993). Further, statistics viz. Root Mean Square Residual (RMR) = 0.054, Bollen 89 Index, Incremental Fit Index (IFI) = 0.874, Comparative Fit Index (CFI) = 0.873, Normed Fit Index (NFI) = 0.801, Relative Fit Index (RFI) = 0.783, Tucker- Lewis Index (TLI) = 0.862. Hence, all values are satisfying the threshold criteria and contributing in confirming the model fit. Additionally, it is clear from the following Table 3.51 and Figure 3.14 that standardized factor loadings of all items are in acceptable range. Hence, CFA validated Achievement Motivation Scale.

**TABLE 3.51: STANDARDISED FACTOR LOADINGS OF THE ITEMS OF
ACHIEVEMENT MOTIVATION SCALE**

Dimension	S. No.	Item No.	Standardised Factor Loading
Work Methods	1	2	0.514
	2	9	0.466
	3	11	0.432
	4	26	0.506
	5	27	0.639
	6	28	0.508
	7	29	0.553
	8	35	0.423
	9	41	0.36
	10	34	0.269
Academic Challenge	11	6	0.497
	12	7	0.452
	13	8	0.411
	14	15	0.48
	15	16	0.484
	16	24	0.551
	17	31	0.42
	18	33	0.309
	19	38	0.405
Attitude Towards Education and Teachers	20	25	0.155
	21	12	-0.356
	22	14	-0.552
	23	18	-0.623
	24	19	-0.592
	25	20	-0.401
	26	32	-0.542
Sports and Dramatics	27	44	0.198
	28	46	0.673
	29	47	0.721
	30	48	0.412
General Interests	31	4	0.505
	32	30	0.335
	33	39	0.375
	34	42	0.274

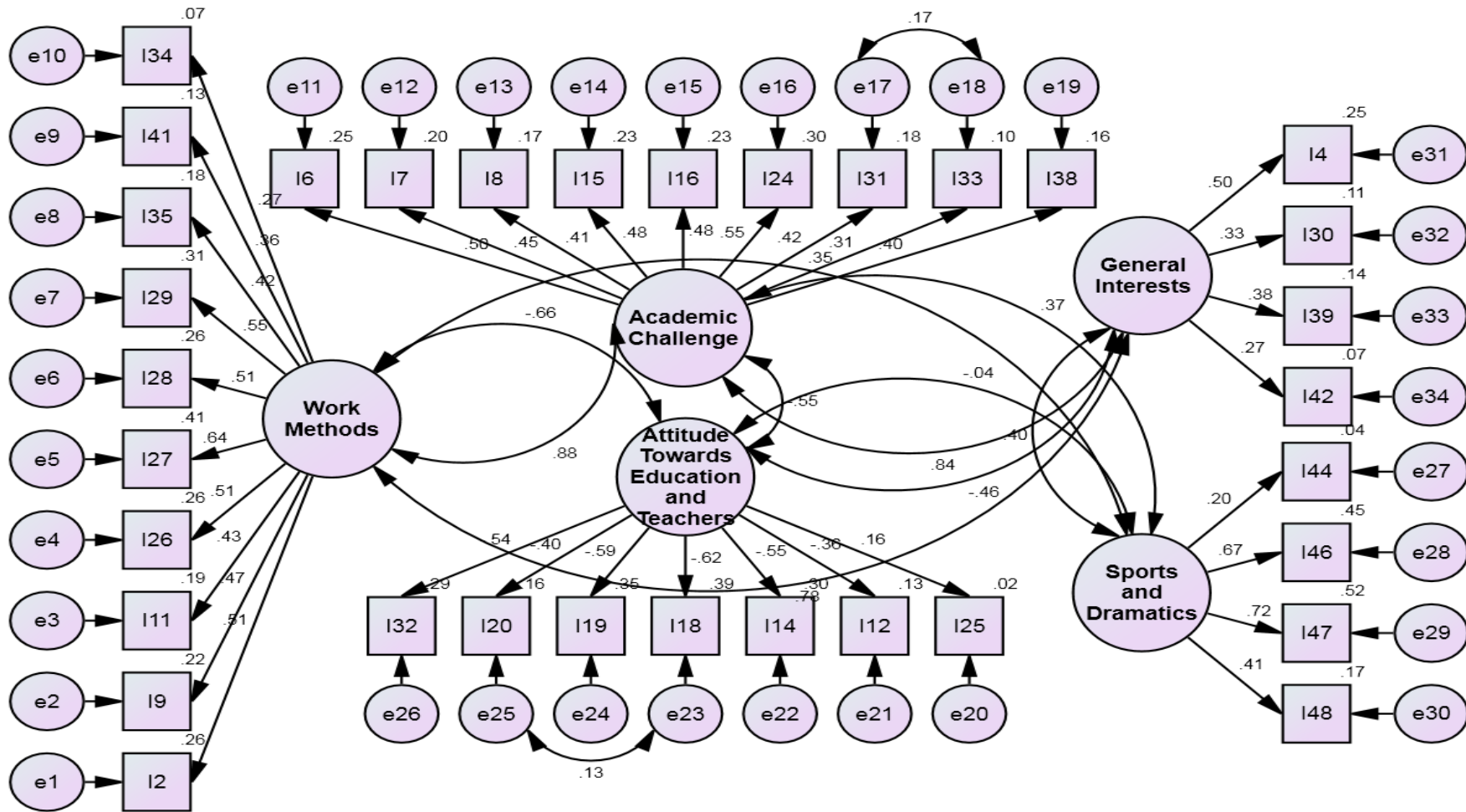


FIGURE 3.14: PATH DIAGRAM OF ACHIEVEMENT MOTIVATION SCALE

- **RELIABILITY**

Estimation of reliability of the achievement motivation scale was done using below mentioned methods.

- ❖ **CRONBACH'S ALPHA RELIABILITY**

To determine the internal consistency of the whole scale and each dimension, Coefficient Alpha (Cronbach, 1951) was calculated with a sample size of 360 by using IBM SPSS version 22 computer program. The coefficient alpha for the whole scale was 0.855 which was considered as reliable score (Cronbach, 1951). The coefficient alpha values for work methods, academic challenge, attitude towards education and teachers, sports and dramatics and general interests were 0.768, 0.738, 0.577, 0.550, and 0.541 for respectively.

TABLE 3.52: RELIABILITY OF ACHIEVEMENT MOTIVATION SCALE

S. No.	Dimension	Item No.	Total Items	Cronbach's Alpha N-360	Composite N-1071
1	Work Methods	2, 9, 11, 26, 27, 28, 29, 35, 41, 34	10	0.768	0.738
2	Academic Challenge	6, 7, 8, 15, 16, 24, 31, 33, 38	9	0.738	0.691
3	Attitude Towards Education and Teachers	25, 12, 14, 18, 19, 20, 32	7	0.577	0.660
4	Sports and Dramatics	44, 46, 47, 48	4	0.550	0.588
5	General Interests	4, 30, 39, 42	4	0.541	0.394
Total			34	0.855	0.899

- ❖ **COMPOSITE RELIABILITY**

Composite Reliability (Raykov, 1997) was calculated with a sample size of 1071 and the results in the above Table 3.52 indicated that the value of work methods, academic challenge, attitude towards education and teachers, sports and dramatics and general interests dimensions of Achievement Motivation Scale were 0.738, 0.691, 0.660, 0.588 and 0.394 respectively.

3.3.2.3.5. FINAL DRAFT OF THE SCALE

Deo-Mohan (2011) developed Achievement Motivation Scale (n-Ach) including 50 items which were distributed in 15 factors. The investigator has validated Achievement Motivation Scale through exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) and checked the internal consistency of the scale using Coefficient Alpha (Cronbach, 1951) and Composite Reliability (Raykov, 1997), it is now consisted of 34 items and five dimensions which are explained below:

- ❖ **Work Methods:** Work methods are defined as the extent to which a student displays diligence in the preparation, execution and completion of academic tasks.
- ❖ **Academic Challenge:** Academic challenge is the ability of a student to establish goals, work on them and carry them out with full dedication.
- ❖ **Attitude towards Education and Teachers:** Attitude towards education and teachers is defined as the perception a student holds towards academics.
- ❖ **Sports and Dramatics:** Sports and dramatics measure the extent of interest a student shows towards sports and dramatics.
- ❖ **General Interests:** General interests measure a student's viewpoint about life, and perception about using the leisure time constructively.

The distribution of items in different dimensions of Achievement Motivation Scale is shown in the Table 3.53.

TABLE 3.53: DIMENSION WISE DISTRIBUTION OF ITEMS IN ACHIEVEMENT MOTIVATION SCALE

S. No.	Dimension	Positive Item No.	Negative Item No.	Total No. of Items
1	Work Methods	2, 9, 11, 26, 27, 28, 29, 35, 41	34	10
2	Academic Challenge	6, 7, 8, 15, 16, 24, 31, 33, 38	-	9
3	Attitude Towards Education and Teachers	25	12, 14, 18, 19, 20, 32	7
4	Sports and Dramatics	44, 46, 47, 48	-	4
5	General Interests	4, 30, 39, 42	-	4
Total Items				34

3.4 STATISTICAL TECHNIQUES

The following statistical techniques were employed in order to analyse the data:

- a) Means and standard deviations were employed to understand the nature of data on the scores of credibility of teachers, institutional support, achievement motivation and leadership development.
- b) Chi- Square test was employed to check the association of four classroom management styles of teachers, and type of school, school board, gender of the teacher, subject of teaching, school size of secondary school students.
- c) t-Test was employed on the scores of different dimensions of credibility of teachers to find out the significant differences due to type of school, gender of the students, school board, gender of the teacher and school size; on the scores of different dimensions of institutional support to find out the significant differences due to gender of the students, type of school, school board and school size; and on the scores of different dimensions of achievement motivation and leadership development to find out the significant differences due to type of school, school board, type of family, gender of the students, school size and residential address.
- d) One Way ANOVA was employed to find out the significant differences (i) in the credibility of teachers due to subject of teaching and region; (ii) in the institutional support due to region; (iii) in the achievement motivation due to region and family size; and (iv) in the leadership development due to region and family size.
- e) Pearson's product moment correlation was employed to study the relationship between different variables i.e. classroom management styles, credibility of teachers, institutional support, achievement motivation and leadership development.
- f) Regression analysis was employed to predict the outcome variable achievement motivation of students due to classroom management styles, credibility of teachers and institutional support as criterion variables. Similarly, the same was employed to predict the outcome variable leadership development of students due to classroom management styles, credibility of teachers and institutional support as criterion variables.

CHAPTER – IV

RESULTS AND INTERPRETATION

In the preceding chapters, theoretical rationale of the problem, review of related literature, the significance of the study, objectives, hypotheses of the study, description of the relevant tools employed, sample, research design of the study, procedures followed to collect the required data and statistical techniques were discussed. The present chapter deals with the statistical analysis of the data and interpretation of the results with a view to arriving at empirical solution to the problem. The study investigates the classroom management styles, credibility of teachers and institutional support, and their impact on achievement motivation and leadership development of secondary school students in Punjab. In order to accomplish the goal, tools were constructed and standardized, and standardised tools were adapted in Indian situations and administered to collect the data. The analysis and presentation of the results has been done under the following headings:

- 4.1 DATA SCREENING**
- 4.2 DISTRIBUTION OF THE SAMPLE ON THE BASIS OF INDIVIDUAL, SCHOOL AND TEACHER SPECIFIC VARIABLES**
- 4.3 SUMMARY OF ASSOCIATION BETWEEN CLASSROOM MANAGEMENT STYLES OF TEACHERS, AND TYPE OF SCHOOL, SCHOOL BOARD, GENDER OF THE TEACHER, SUBJECT OF TEACHING, SCHOOL SIZE OF SECONDARY SCHOOL STUDENTS**
- 4.4 SUMMARY OF t-TEST FOR TYPE OF SCHOOL, GENDER, SCHOOL BOARD, GENDER OF THE TEACHER AND SCHOOL SIZE ON THE SCORES OF DIFFERENT DIMENSIONS OF CREDIBILITY OF TEACHERS**
- 4.5 SUMMARY OF ONE WAY ANOVA ON THE SCORES OF CREDIBILITY OF TEACHERS OF SECONDARY SCHOOL STUDENTS**

- 4.5.1 SUMMARY OF ONE WAY ANOVA FOR SUBJECT OF TEACHING ON THE SCORES OF DIFFERENT DIMENSIONS OF CREDIBILITY OF TEACHERS OF SECONDARY SCHOOL STUDENTS**
- 4.5.2 SUMMARY OF ONE WAY ANOVA FOR REGION ON THE SCORES OF DIFFERENT DIMENSIONS OF CREDIBILITY OF TEACHERS OF SECONDARY SCHOOL STUDENTS**
- 4.6 SUMMARY OF t-TEST FOR GENDER, TYPE OF SCHOOL, SCHOOL BOARD AND SCHOOL SIZE ON THE SCORES OF DIFFERENT DIMENSIONS OF INSTITUTIONAL SUPPORT PROVIDED TO SECONDARY SCHOOL STUDENTS**
- 4.7 SUMMARY OF ONE WAY ANOVA FOR REGION ON THE SCORES OF DIFFERENT DIMENSIONS OF INSTITUTIONAL SUPPORT PROVIDED TO SECONDARY SCHOOL STUDENTS**
- 4.8 SUMMARY OF t-TEST FOR TYPE OF SCHOOL, SCHOOL BOARD, TYPE OF FAMILY, GENDER, SCHOOL SIZE AND LOCALE ON THE SCORES OF DIFFERENT DIMENSIONS OF ACHIEVEMENT MOTIVATION OF SECONDARY SCHOOL STUDENTS**
- 4.9 SUMMARY OF ONE WAY ANOVA ON THE SCORES OF ACHIEVEMENT MOTIVATION OF SECONDARY SCHOOL STUDENTS**
- 4.9.1 SUMMARY OF ONE WAY ANOVA FOR REGION ON THE SCORES OF DIFFERENT DIMENSIONS OF ACHIEVEMENT MOTIVATION OF SECONDARY SCHOOL STUDENTS**
- 4.9.2 SUMMARY OF ONE WAY ANOVA FOR FAMILY SIZE ON THE SCORES OF DIFFERENT DIMENSIONS OF ACHIEVEMENT MOTIVATION OF SECONDARY SCHOOL STUDENTS**

- 4.10 SUMMARY OF t-TEST FOR TYPE OF SCHOOL, SCHOOL BOARD, TYPE OF FAMILY, GENDER, SCHOOL SIZE AND LOCALE ON THE SCORES OF DIFFERENT DIMENSIONS OF LEADERSHIP DEVELOPMENT OF SECONDARY SCHOOL STUDENTS**
- 4.11 SUMMARY OF ONE WAY ANOVA ON THE SCORES OF LEADERSHIP DEVELOPMENT OF SECONDARY SCHOOL STUDENTS**
 - 4.11.1 SUMMARY OF ONE WAY ANOVA FOR REGION ON THE SCORES OF DIFFERENT DIMENSIONS OF LEADERSHIP DEVELOPMENT OF SECONDARY SCHOOL STUDENTS**
 - 4.11.2 SUMMARY OF ONE WAY ANOVA FOR FAMILY SIZE ON THE SCORES OF DIFFERENT DIMENSIONS OF LEADERSHIP DEVELOPMENT OF SECONDARY SCHOOL STUDENTS**
- 4.12 SUMMARY OF CORRELATION BETWEEN CLASSROOM MANAGEMENT STYLES AND INSTITUTIONAL SUPPORT**
- 4.13 SUMMARY OF CORRELATION BETWEEN CREDIBILITY OF TEACHERS AND INSTITUTIONAL SUPPORT**
- 4.14 SUMMARY OF CORRELATION BETWEEN CLASSROOM MANAGEMENT STYLES AND CREDIBILITY OF TEACHERS**
- 4.15 SUMMARY OF CORRELATION BETWEEN**
 - A. CLASSROOM MANAGEMENT STYLES AND ACHIEVEMENT MOTIVATION**
 - B. CREDIBILITY OF TEACHERS AND ACHIEVEMENT MOTIVATION**
 - C. INSTITUTIONAL SUPPORT AND ACHIEVEMENT MOTIVATION**
- 4.16 SUMMARY OF CORRELATION BETWEEN**
 - A. CLASSROOM MANAGEMENT STYLES AND LEADERSHIP DEVELOPMENT**

B. CREDIBILITY OF TEACHERS AND LEADERSHIP DEVELOPMENT

C. INSTITUTIONAL SUPPORT AND LEADERSHIP DEVELOPMENT

4.17 SUMMARY OF CORRELATION BETWEEN ACHIEVEMENT MOTIVATION AND LEADERSHIP DEVELOPMENT

4.18 SUMMARY OF REGRESSION ANALYSIS FOR THE SCORES OF ACHIEVEMENT MOTIVATION OF STUDENTS

4.19 SUMMARY OF REGRESSION ANALYSIS FOR THE SCORES OF LEADERSHIP DEVELOPMENT OF STUDENTS

4.1 DATA SCREENING

In quantitative research, in order to make generalizations, a careful procedure in sample selection, tools, techniques and data collection are required. In order to avoid measurement errors, data screening was performed to ensure the accuracy of data and to identify any missing data. In total, 1080 forms were received by the investigator. Incomplete forms were excluded from the dataset while entering the data. After removal of incomplete forms, the actual number of forms considered for analysis of data was 1071.

4.2 DISTRIBUTION OF THE SAMPLE ON THE BASIS OF INDIVIDUAL, SCHOOL AND TEACHER SPECIFIC VARIABLES

A total of 1071 secondary school students have been selected for the analysis and distribution of the sample has been carried out on different variables viz. gender, locale, type of family, region and family size of the students, and type of school, school board, school size, and gender of the teacher, subject of teaching and classroom management style. The data as per the distribution of the sample was collected, quantified, processed and presented in the form of frequency distribution and percentage in the following Table 4.1.

TABLE 4.1: DISTRIBUTION OF THE SAMPLE

Individual Specific Variable Wise Distribution		Frequency	Percent
Gender	Female	621	58%
	Male	450	42%
	Total	1071	100%
Locale	Urban	772	72.1%
	Rural	299	27.9%
	Total	1071	100%
Type of Family	Nuclear	661	61.7%
	Joint	410	38.3%
	Total	1071	100%
Region	Majha	360	33.6%
	Malwa	351	32.8%
	Doaba	360	33.6%
	Total	1071	100%
Family Size	3	39	3.6%
	4	342	31.9%
	5	288	26.9%
	6	179	16.7%
	7	70	6.5%
	8	153	14.3%
	Total	1071	100%
School Specific Variable Wise Distribution		Frequency	Percent
Type of School	Government	532	49.7%
	Private	539	50.3%
	Total	1071	100%
School Board	PSEB	532	49.7%
	CBSE	539	50.3%
	Total	1071	100%
School Size	Large (>800)	591	55.2%
	Small (<800)	480	44.8%
	Total	1071	100%

Contd.

Teacher Specific Variable Wise Distribution		Frequency	Percent
Gender of the Teacher	Female	852	79.6%
	Male	219	20.4%
	Total	1071	100%
Subject of Teaching	English	360	33.6%
	Mathematics	355	33.1%
	Science	356	33.2%
	Total	1071	100%
Classroom Management Style	Authoritarian	62	5.8%
	Laissez-faire	237	22.1%
	Democratic	748	69.8%
	Indifferent	24	2.2%
	Total	1071	100%

It is clear from the Table 4.1 that the sample has been distributed on the basis of individual, school and teacher specific variables. In the first category of the distribution of the sample, the variables are related to secondary school students i.e. their gender, locale, type of family, region and family size. The above table shows that 621 (58%) students represented the female and 450 (42%) students represented the male sample in the study. 772 (72.1%) students were from urban locale and 299 (27.9%) students were from rural locale. Among 1071 students, 661 (61.7%) students belonged to nuclear and 410 (38.3%) students belonged to joint families. 360 (33.6%), 351(32.8%) and 360 (33.6%) students were from Majha, Malwa and Doaba regions of Punjab respectively. The table shows that 39 (3.6%), 342 (31.9%), 288 (26.9%), 179 (16.7%), 70 (6.5%) and 153 (14.3%) students had 3, 4, 5, 6, 7, and 8 members in their families respectively.

In the second category of the distribution of the sample, the variables are related to the school of secondary school students i.e. type of school, school board and size of the school. The table shows that 532 (49.7%) students were studying in government and 539 (50.3%) students were studying in private schools. 532 (49.7%) students were from PSEB affiliated schools and 539 (50.3%) students were from CBSE affiliated schools. 591 (55.2%) students belonged to large size schools and 480 (44.8%) students were from small size schools.

The third category of the distribution of the sample represents the variables which are related to the teachers of secondary school students i.e. gender of the teacher, subject of teaching and classroom management styles of teachers. It is seen from the table that 852 (79.6%) students have perceived classroom management styles of female teachers and 219 (20.4%) students have perceived classroom management styles of male teachers. It is clear from the table that 360 (33.6%) students have perceived classroom management styles of English teachers, 355 (33.1%) students have perceived classroom management styles of Mathematics teachers and 356 (33.2%) students have perceived classroom management styles of Science teachers. The table shows that 748 (69.8%), 237 (22.1%), 62 (5.8%) and 24 (2.2%) students have perceived their teachers' classroom management styles as democratic, laissez-faire, authoritarian and indifferent respectively. Thus, it is clear that democratic classroom management style is the most perceived style by the students and indifferent classroom management style is seen as the least perceived classroom management style by the students. Similar findings are reported by Ali and Badah (2014) who found that democratic classroom management style is the most dominant and prevailing style perceived by college students followed by the leisurely style among traditional, authoritarian, democratic and leisurely styles. Similarly, Munir and Rehman (2016) found that democratic teaching style is the most frequent observed style by school students among democratic, indifferent, laissez-faire and authoritarian styles.

4.3 SUMMARY OF ASSOCIATION BETWEEN CLASSROOM MANAGEMENT STYLES OF TEACHERS, AND TYPE OF SCHOOL, SCHOOL BOARD, GENDER OF THE TEACHER, SUBJECT OF TEACHING, SCHOOL SIZE OF SECONDARY SCHOOL STUDENTS

To examine the association of classroom management styles of teachers, and type of school, school board, gender of the teacher, subject of teaching, school size of secondary school students, a Pearson Chi- Square test was performed by considering the following hypothesis:

Hypothesis 1- There is no significant association of classroom management styles of teachers and (i) type of school; (ii) school board; (iii) gender of the teacher; (iv) subject of teaching; (v) school size of secondary school students.

The result of chi-square test is presented in Table 4.2 which shows the association of authoritarian, laissez-faire, democratic and indifferent classroom management styles of teachers and other variables.

TABLE 4.2: SUMMARY OF ASSOCIATION OF CLASSROOM MANAGEMENT STYLES OF TEACHERS AND (A) TYPE OF SCHOOL; (B) SCHOOL BOARD; (C) GENDER OF THE TEACHER; (D) SUBJECT OF TEACHING; (E) SCHOOL SIZE OF SECONDARY SCHOOL STUDENTS

Variable and Groups		Classroom Management Styles					Pearson Chi-Square	Df	P value
		A	L	D	I	Total			
Type of School	Government	34 (30.8)	129 (117.7)	358 (371.6)	11 (11.9)	532	3.931	3	0.269
	Private	28 (31.2)	108 (119.3)	390 (376.4)	13 (12.1)	539			
	Total	62	237	748	24	1071			
School Board	PSEB	42 (30.8)	128 (117.7)	350 (371.6)	12 (11.9)	532	12.365**	3	0.006
	CBSE	20 (31.2)	109 (119.3)	398 (376.4)	12 (12.1)	539			
	Total	62	237	748	24	1071			
Gender of the Teacher	Female	58 (49.3)	179 (188.5)	597 (595)	18 (19.1)	852	10.163*	3	0.017
	Male	4 (12.7)	58 (48.5)	151 (153)	6 (4.9)	219			
	Total	62	237	748	24	1071			
Subject of Teaching	English	20 (20.8)	75 (79.7)	257 (251.4)	8 (8.1)	360	4.784	6	0.572
	Mathematics	19 (20.6)	74 (78.6)	251 (247.9)	11 (8)	355			
	Science	23 (20.6)	88 (78.8)	240 (248.6)	5 (8)	356			
	Total	62	237	748	24	1071			
School Size	Large	41 (34.2)	121 (130.8)	414 (412.8)	15 (13.2)	591	5.165	3	0.160
	Small	21 (27.8)	116 (106.2)	334 (335.2)	9 (10.8)	480			
	Total	62	237	748	24	1071			

A-Authoritarian, L-Laissez-faire, D-Democratic, I-Indifferent
 ** Significant at 0.01 level of confidence, * Significant at 0.05 level of confidence

The Table 4.2 presents the results for the association of classroom management styles of teachers and other variables. From the first category of variable and groups i.e. type of school, it is clear that the Pearson chi-square value is 3.931 and p value is 0.269. As the p value is greater than 0.05, the null hypothesis, “There is no significant association between classroom management styles of teachers and type of school of secondary school students” is not rejected. Hence, classroom management styles of teachers are not associated with type of school of secondary school students.

The second category of variable and groups i.e. school board shows that the Pearson chi-square value is 12.365 and p value is 0.006. As the p value is less than 0.05, the null hypothesis, “There is no significant association between classroom management styles of teachers and school board of secondary school students” is rejected. Hence, classroom management styles of teachers are associated with school board of secondary school students. In order to find out the significant differences due to school board on the scores of different classroom management styles of teachers, t-test has been applied. The Table 4.3 shows N, Mean, Std. deviation for school board and the four classroom management styles of teachers i.e. authoritarian, laissez-faire, democratic and indifferent.

TABLE 4.3: SUMMARY OF N, MEAN AND STD. DEVIATION DIFFERENTIALS ON THE SCORES OF DIFFERENT CLASSROOM MANAGEMENT STYLES OF TEACHERS FOR SCHOOL BOARD

Classroom Management Styles	School Board	N	Mean	Std. Deviation
Authoritarian	PSEB	42	37.21	5.471
	CBSE	20	37.50	5.871
Laissez-faire	PSEB	128	37.44	3.582
	CBSE	109	36.69	3.338
Democratic	PSEB	350	46.01	4.296
	CBSE	398	44.97	4.229
Indifferent	PSEB	12	26.25	2.768
	CBSE	12	25.67	4.479

The results of t-test for the significant difference in the scores of different classroom management styles of teachers due to school board are presented in Table 4.4.

TABLE 4.4: SUMMARY OF t-TEST FOR SCHOOL BOARD ON THE SCORES OF DIFFERENT CLASSROOM MANAGEMENT STYLES OF TEACHERS

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Authoritarian	Equal variances assumed	0.21	0.65	0.19	60.00	0.85	0.29	1.52
Laissez-faire	Equal variances assumed	0.93	0.34	1.66	235.00	0.10	0.75	0.45
Democratic	Equal variances assumed	0.01	0.93	3.33	746.00	0.00**	1.04	0.31
Indifferent	Equal variances assumed	3.01	0.10	0.38	22.00	0.70	0.58	1.52

** Significant at 0.01 level of confidence

The Table 4.4 presents the school board wise differences on the scores of four classroom management styles of teachers. It is clear from the table that t values for authoritarian, laissez-faire and indifferent classroom management styles are 0.19, 1.66 and 0.38 respectively which are not found to be significant even at the 0.05 level of confidence. However, the t value for democratic classroom management style is 3.33 which is found to be significant at the 0.01 level of confidence. Hence, there is significant difference in the democratic classroom management style of teachers due to school board. From the mean scores, it is found that PSEB board students have perceived democratic classroom management style of teachers more than CBSE board students.

The third category of variable and groups i.e. gender of the teacher from the table shows that the Pearson chi-square value is 10.163 and p value is 0.017. As the p value is less than 0.05, the null hypothesis, “There is no significant association between classroom management styles of teachers and gender of the teacher of secondary school students” is rejected. Hence, classroom management styles of teachers are associated with gender of the teacher of secondary school students. In order to find out the significant differences due to gender of the teacher on the scores of different classroom management styles of teachers, t-test has been applied.

The Table 4.5 shows N, Mean, Std. deviation for gender of the teacher and the four classroom management styles of teachers i.e. authoritarian, laissez-faire, democratic and indifferent.

TABLE 4.5: SUMMARY OF N, MEAN AND STD. DEVIATION DIFFERENTIALS ON THE SCORES OF DIFFERENT CLASSROOM MANAGEMENT STYLES OF TEACHERS FOR GENDER OF THE TEACHER

Classroom Management Styles	Gender of the Teacher	N	Mean	Std. Deviation
Authoritarian	Female	58	37.26	5.555
	Male	4	38.00	6.377
Laissez-faire	Female	179	37.08	3.589
	Male	58	37.14	3.170
Democratic	Female	597	45.42	4.391
	Male	151	45.61	3.869
Indifferent	Female	18	26.50	3.974
	Male	6	24.33	1.862

The results of t-test for the significant difference in the scores of different classroom management styles of teachers due to gender of the teacher are presented in Table 4.6.

TABLE 4.6: SUMMARY OF t-TEST FOR GENDER OF THE TEACHER ON THE SCORES OF DIFFERENT CLASSROOM MANAGEMENT STYLES OF TEACHERS

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Authoritarian	Equal variances assumed	0.27	0.61	0.26	60.00	0.80	0.74	2.89
Laissez-faire	Equal variances assumed	0.27	0.61	0.11	235.00	0.91	0.06	0.53
Democratic	Equal variances not assumed	6.32	0.01	0.52	256.77	0.60	0.19	0.36
Indifferent	Equal variances assumed	1.31	0.26	1.28	22.00	0.22	2.17	1.70

The Table 4.6 presents the gender of the teacher wise differences on the scores of four classroom management styles of teachers. It is clear from the table that t values for authoritarian, laissez-faire, democratic and indifferent classroom management styles are 0.26, 0.11, 0.52 and 1.28 respectively which are not found to be significant even at the 0.05 level of confidence. Although, the association has been found to be significant between gender of the teacher and classroom management styles but significant differences are not found in the different classroom management styles i.e. authoritarian, laissez-faire, democratic and indifferent for male and female teachers as perceived by students. So, it is concluded that students have perceived similar authoritarian, laissez-faire, democratic and indifferent classroom management styles of their male and female teachers.

From the fourth category of variable and groups i.e. subject of teaching, it is clear that the Pearson chi-square value is 4.784 and p value is 0.572. As the p value is greater than 0.05, the null hypothesis, “There is no significant association between classroom management styles of teachers and subject of teaching of secondary school students” is not rejected. Hence, classroom management styles of teachers are not associated with subject of teaching of secondary school students.

The fifth category of variable and groups i.e. school size shows that the Pearson chi-square value is 5.165 and p value is 0.16. As the p value is greater than 0.05, the null hypothesis, “There is no significant association between classroom management styles of teachers and school size of secondary school students” is not rejected. Hence, classroom management styles of teachers are not associated with school size of secondary school students.

DISCUSSION ON RESULTS

It is found from the results that classroom management styles of teachers are associated with school board of secondary school students. Further, the results reported that there is significant difference in the democratic classroom management style of teachers due to school board. Hence, it is concluded that PSEB board students have perceived democratic classroom management style of teachers more than CBSE board students. The results revealed that classroom management styles

of teachers are associated with gender of the teacher of secondary school students but significant differences are not found in the different classroom management styles i.e. authoritarian, laissez-faire, democratic and indifferent for male and female teachers as perceived by students. Hence, it is concluded that students have perceived similar authoritarian, laissez-faire, democratic and indifferent classroom management styles of their male and female teachers. This finding is supported by Yasar (2008) who found that gender of the teacher does not affect the classroom management approaches of primary school teachers, and Sadik and Sadik (2014) who reported that no significant difference has been found among laissez-faire, indifferent and authoritarian classroom management profiles of pre-service teachers on the basis of their gender. From the results of the study, it is found that classroom management styles of teachers are not associated with type of school of secondary school students. It is shown from the results that classroom management styles of teachers are not associated with subject of teaching of secondary school students. The study revealed that classroom management styles of teachers are not associated with school size of secondary school students.

4.4 SUMMARY OF t-TEST FOR TYPE OF SCHOOL, GENDER, SCHOOL BOARD, GENDER OF THE TEACHER AND SCHOOL SIZE ON THE SCORES OF DIFFERENT DIMENSIONS OF CREDIBILITY OF TEACHERS

For finding out significant differences due to type of school, gender, school board, gender of the teacher and school size on the scores of different dimensions of credibility of teachers, t-test has been applied by considering the following hypothesis:

Hypothesis 2 a- There is no significant difference in the credibility of teachers w.r.t (i) type of school; (ii) gender; (iii) school board; (iv) gender of the teacher; (v) school size of secondary school students.

The Table 4.7 shows N, Mean, Std. deviation for type of school, gender, school board, gender of the teacher and school size and the three dimensions i.e. competence, goodwill and trustworthiness of credibility of teachers.

TABLE 4.7: SUMMARY OF N, MEAN AND STD. DEVIATION DIFFERENTIALS ON THE SCORES OF DIFFERENT DIMENSIONS OF CREDIBILITY OF TEACHERS FOR TYPE OF SCHOOL, GENDER, SCHOOL BOARD, GENDER OF THE TEACHER AND SCHOOL SIZE

Credibility	Variable	N	Mean	Std. Deviation
Type of School				
Competence	Government	532	24.50	3.801
	Private	539	24.63	3.675
Goodwill	Government	532	24.02	3.947
	Private	539	23.75	4.111
Trustworthiness	Government	532	24.53	3.801
	Private	539	24.52	3.633
Gender				
Competence	Female	621	25.02	3.467
	Male	450	23.94	4.001
Goodwill	Female	621	24.12	3.96
	Male	450	23.56	4.109
Trustworthiness	Female	621	24.82	3.591
	Male	450	24.12	3.85
Gender- Subject of Teaching (English)				
Competence	Female	217	25.13	3.629
	Male	143	24.14	3.540
Goodwill	Female	217	23.86	4.432
	Male	143	23.74	4.179
Trustworthiness	Female	217	24.61	4.136
	Male	143	24.39	3.857
Gender- Subject of Teaching-Maths				
Competence	Female	166	24.86	3.461
	Male	189	24.24	3.632
Goodwill	Female	166	24.32	3.249
	Male	189	23.52	4.026
Trustworthiness	Female	166	25.13	2.857
	Male	189	24.21	3.414

Contd.

Credibility	Variable	N	Mean	Std. Deviation
Gender- Subject of Teaching-Science				
Competence	Female	238	25.02	3.328
	Male	118	23.21	4.928
Goodwill	Female	238	24.21	3.959
	Male	118	23.38	4.180
Trustworthiness	Female	238	24.79	3.513
	Male	118	23.66	4.448
School Board				
Competence	PSEB	532	24.73	3.721
	CBSE	539	24.40	3.749
Goodwill	PSEB	532	24.58	3.948
	CBSE	539	23.19	3.997
Trustworthiness	PSEB	532	24.89	3.604
	CBSE	539	24.17	3.792
Gender of the Teacher				
Competence	Female	852	24.56	3.728
	Male	219	24.56	3.781
Goodwill	Female	852	23.91	4.079
	Male	219	23.78	3.845
Trustworthiness	Female	852	24.50	3.787
	Male	219	24.63	3.429
School Size				
Competence	Large	591	24.22	3.761
	Small	480	24.98	3.668
Goodwill	Large	591	23.43	4.132
	Small	480	24.44	3.834
Trustworthiness	Large	591	24.29	3.788
	Small	480	24.82	3.607

The results of t-test for the significant difference in the scores of different dimensions of credibility of teachers due to type of school, gender, school board, gender of the teacher and school size are presented in Table 4.8.

TABLE 4.8: SUMMARY OF t-TEST FOR TYPE OF SCHOOL, GENDER, SCHOOL BOARD, GENDER OF THE TEACHER AND SCHOOL SIZE ON THE SCORES OF DIFFERENT DIMENSIONS OF CREDIBILITY OF TEACHERS

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Type of School								
C	Equal variances assumed	0.34	0.56	0.58	1069	0.56	0.13	0.23
G	Equal variances assumed	0.68	0.41	1.09	1069	0.27	0.27	0.25
T	Equal variances assumed	0.63	0.43	0.08	1069	0.94	0.02	0.23
Gender								
C	Equal variances not assumed	11.72	0.00	4.60	881.66	0.00**	1.08	0.23
G	Equal variances assumed	2.06	0.15	2.26	1069	0.02*	0.56	0.25
T	Equal variances assumed	3.13	0.08	3.03	1069	0.00**	0.69	0.23
Gender- Subject of Teaching-English								
C	Equal variances assumed	0.00	0.98	2.57	358.00	0.01**	0.99	0.39
G	Equal variances assumed	0.05	0.82	0.26	358.00	0.80	0.12	0.47
T	Equal variances assumed	0.33	0.57	0.50	358.00	0.62	0.22	0.43
Gender- Subject of Teaching-Maths								
C	Equal variances not assumed	4.52	0.03	1.64	350.65	0.10	0.62	0.38
G	Equal variances not assumed	10.58	0.00	2.06	350.56	0.04*	0.80	0.39
T	Equal variances not assumed	6.43	0.01	2.78	352.20	0.01**	0.93	0.33
Gender- Subject of Teaching- Science								
C	Equal variances not assumed	17.46	0.00	3.60	171.56	0.00**	1.81	0.50
G	Equal variances assumed	0.04	0.84	1.82	354.00	0.07	0.83	0.45
T	Equal variances not assumed	6.78	0.01	2.40	191.51	0.02*	1.12	0.47

Contd.

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
School Board								
C	Equal variances assumed	0.35	0.55	1.45	1069	0.15	0.33	0.23
G	Equal variances assumed	0.37	0.54	5.69	1069	0.00**	1.38	0.24
T	Equal variances assumed	0.83	0.36	3.17	1069	0.00**	0.72	0.23
Gender of the Teacher								
C	Equal variances assumed	0.61	0.44	0.01	1069	1.00	0.00	0.28
G	Equal variances assumed	2.86	0.09	0.41	1069	0.68	0.13	0.31
T	Equal variances not assumed	4.57	0.03	0.48	366.91	0.63	0.13	0.27
School Size								
C	Equal variances assumed	0.15	0.69	3.33	1069	0.00**	0.76	0.23
G	Equal variances assumed	3.81	0.051	4.10	1069	0.00**	1.01	0.25
T	Equal variances assumed	0.11	0.74	2.34	1069	0.02*	0.53	0.23
C- Competence, G- Goodwill, T- Trustworthiness								
** Significant at 0.01 level of confidence, * Significant at 0.05 level of confidence								

The Table 4.8 presents the type of school wise differences on the scores of different dimensions of credibility of teachers. It is clear from the table that t values for competence, goodwill and trustworthiness are 0.58, 1.09 and 0.08 respectively which are not found to be significant even at the 0.05 level of confidence. Hence, the null hypothesis, "There is no significant difference in the credibility of teachers w.r.t type of school of secondary school students" is not rejected. Meaning thereby, students studying in government and private schools have perceived similar competence, goodwill and trustworthiness of their teachers' credibility.

The table presents the gender wise differences on the scores of different dimensions of credibility of teachers. It is further analysed for teachers' teaching subjects i.e. English, Mathematics and Science. It is clear from the table that t values

are found significant for all the dimensions (competence, goodwill and trustworthiness) of credibility for all teachers; for competence among English teachers; for goodwill and trustworthiness among Mathematics teachers; and for competence and trustworthiness among Science teachers. Hence, the null hypothesis, “There is no significant difference in the credibility of teachers w.r.t gender of secondary school students” is rejected. From the mean scores, it is concluded that in totality, the teachers are perceived to be more credible by female students for all the dimensions i.e. competence, goodwill and trustworthiness than male students. Similarly, for English teachers, female students have perceived them to be more competent than male students. Among Mathematics teachers, female students have perceived them to be more credible on goodwill and trustworthiness than male students. Among Science teachers, female students have perceived them to be more credible on competence and trustworthiness than male students.

From the table, school board wise differences on the scores of different dimensions of credibility of teachers show that t values for goodwill and trustworthiness are 5.69 and 3.17 respectively which are found to be significant at the 0.01 level of confidence. However, it is not found to be significant at 0.05 level of confidence for competence dimension of credibility of teachers. Hence, the null hypothesis, “There is no significant difference in the credibility of teachers w.r.t school board of secondary school students” is rejected for goodwill and trustworthiness dimensions of credibility of teachers. Meaning thereby, there is significant difference in the PSEB and CBSE board students’ perceptions of their teachers’ goodwill and trustworthiness. From the mean scores, it is found that PSEB board students have perceived goodwill and trustworthiness dimensions of credibility of teachers more than CBSE board students.

From the table, gender of the teacher wise differences on the scores of different dimensions of credibility of teachers show that t values for competence, goodwill and trustworthiness are 0.01, 0.41 and 0.48 which are not found to be significant even at the 0.05 level of confidence. Hence, the null hypothesis, “There is no significant difference in the credibility of teachers w.r.t gender of the teacher of secondary school students” is not rejected. Meaning thereby, students have perceived similar competence, goodwill and trustworthiness of their male and female teachers’ credibility.

The table presents the school size wise differences on the scores of different dimensions of credibility of teachers. It is clear from the table that t values for competence, goodwill and trustworthiness are 3.33, 4.10 and 2.34 respectively which are found to be significant either at the 0.01 or 0.05 level of confidence. Hence, the null hypothesis, “There is no significant difference in the credibility of teachers w.r.t school size of secondary school students” is rejected. Meaning thereby, there is significant difference in the large and small school students’ perceptions of their teachers’ credibility. From the mean scores, it is found that students studying in small schools have perceived credibility of teachers (competence, goodwill & trustworthiness) more than students studying in large schools.

DISCUSSION ON RESULTS

The findings of the study revealed that students studying in government and private schools have perceived similar competence, goodwill and trustworthiness of their teachers’ credibility. It is found from the results that in totality, the teachers are perceived to be more credible by female students for all the dimensions i.e. competence, goodwill and trustworthiness than male students. Similarly for English teachers, female students have perceived them to be more competent than male students. Among Mathematics teachers, female students have perceived them to be more credible on goodwill and trustworthiness than male students. Among Science teachers, female students have perceived them to be more credible on competence and trustworthiness than male students. The results revealed that PSEB board students have perceived goodwill and trustworthiness dimensions of credibility of teachers more than CBSE board students. It is shown from the results that students have perceived similar competence, goodwill and trustworthiness of their male and female teachers’ credibility. This finding is in line with the finding of Patton (1999) who found no significant relationship between instructor gender and credibility, and reported that female instructors were not significantly rated more credible than male instructors by their students. It is found from the study that students studying in small schools have perceived credibility of teachers (competence, goodwill & trustworthiness) more than students studying in large schools.

4.5 SUMMARY OF ONE WAY ANOVA ON THE SCORES OF CREDIBILITY OF TEACHERS OF SECONDARY SCHOOL STUDENTS

For finding out significant differences due to subject of teaching and region on the scores of different dimensions of credibility of teachers, One Way ANOVA has been applied and the results are presented below.

4.5.1 SUMMARY OF ONE WAY ANOVA FOR SUBJECT OF TEACHING ON THE SCORES OF DIFFERENT DIMENSIONS OF CREDIBILITY OF TEACHERS OF SECONDARY SCHOOL STUDENTS

The results of One Way ANOVA are presented by considering the following hypothesis:

Hypothesis 2 b- There is no significant difference in the credibility of teachers of secondary school students w.r.t to subject of teaching.

The Table 4.9 shows N, Mean, Std. deviation for various sub groups on the scores of different dimensions of credibility of teachers of secondary school students w.r.t subject of teaching.

TABLE 4.9: SUMMARY OF N, MEAN AND STD. DEVIATION ON THE SCORES OF DIFFERENT DIMENSIONS OF CREDIBILITY OF TEACHERS WITH RESPECT TO SUBJECT OF TEACHING

Credibility	Variable	N	Mean	Std. Deviation
Competence	English	360	24.74	3.622
	Mathematics	355	24.53	3.562
	Science	356	24.42	4.016
	Total	1071	24.56	3.737
Goodwill	English	360	23.81	4.327
	Mathematics	355	23.9	3.7
	Science	356	23.94	4.047
	Total	1071	23.88	4.031
Trustworthiness	English	360	24.52	4.024
	Mathematics	355	24.64	3.195
	Science	356	24.41	3.878
	Total	1071	24.52	3.716

The Table 4.10 shows the One Way ANOVA results for significant difference due to subject of teaching on the scores of different dimensions of credibility of teachers of secondary school students.

TABLE 4.10: SUMMARY OF ONE WAY ANOVA ON THE SCORES OF DIFFERENT DIMENSIONS OF CREDIBILITY OF TEACHERS W.R.T SUBJECT OF TEACHING

Credibility	Source	Sum of Squares	Df	Mean Square	F	Sig.
Competence	Between Groups	18.747	2	9.373	0.671	0.512
	Within Groups	14924.7	1068	13.974		
	Total	14943.5	1070			
Goodwill	Between Groups	2.752	2	1.376	0.085	0.919
	Within Groups	17381.2	1068	16.275		
	Total	17383.9	1070			
Trustworthiness	Between Groups	9.124	2	4.562	0.330	0.719
	Within Groups	14764	1068	13.824		
	Total	14773.1	1070			

From the above table, it is clear that the F values for competence, goodwill and trustworthiness dimensions of credibility of teachers perceived by students taught by English, Mathematics and Science teachers are found to be 0.671, 0.085 and 0.330 respectively at (1068, 2) df which are not found to be significant (p value > 0.05). Hence, the null hypothesis, “There is no significant difference in the credibility of teachers of secondary school students w.r.t to subject of teaching” is not rejected. Meaning thereby, students have perceived similar credibility of their English, Mathematics and Science teachers on competence, goodwill and trustworthiness.

4.5.2 SUMMARY OF ONE WAY ANOVA FOR REGION ON THE SCORES OF DIFFERENT DIMENSIONS OF CREDIBILITY OF TEACHERS OF SECONDARY SCHOOL STUDENTS

The results of One Way ANOVA are presented by considering the following hypothesis:

Hypothesis 2 c- There is no significant difference in the credibility of teachers of secondary school students w.r.t to region.

The Table 4.11 shows N, Mean, Std. deviation for various sub groups on the scores of different dimensions of credibility of teachers of secondary school students w.r.t region.

TABLE 4.11: SUMMARY OF N, MEAN AND STD. DEVIATION ON THE SCORES OF DIFFERENT DIMENSIONS OF CREDIBILITY OF TEACHERS WITH RESPECT TO REGION

Credibility	Variable	N	Mean	Std. Deviation
Competence	Majha	360	24.36	3.631
	Malwa	351	24.74	3.798
	Doaba	360	24.59	3.782
	Total	1071	24.56	3.737
Goodwill	Majha	360	23.96	3.869
	Malwa	351	24.54	3.802
	Doaba	360	23.16	4.291
	Total	1071	23.88	4.031
Trustworthiness	Majha	360	24.37	3.898
	Malwa	351	24.84	3.399
	Doaba	360	24.37	3.814
	Total	1071	24.52	3.716

The Table 4.12 shows the One Way ANOVA results for significant difference due to region on the scores of different dimensions of credibility of teachers of secondary school students.

TABLE 4.12: SUMMARY OF ONE WAY ANOVA ON THE SCORES OF DIFFERENT DIMENSIONS OF CREDIBILITY OF TEACHERS W.R.T REGION

Credibility	Source	Sum of Squares	Df	Mean Square	F	Sig.
Competence	Between Groups	26.362	2	13.181	0.944	0.39
	Within Groups	14917.1	1068	13.967		
	Total	14943.5	1070			
Goodwill	Between Groups	340.17	2	170.085	10.658	0.00**
	Within Groups	17043.8	1068	15.959		
	Total	17383.9	1070			
Trustworthiness	Between Groups	52.99	2	26.495	1.922	0.15
	Within Groups	14720.1	1068	13.783		
	Total	14773.1	1070			

** Significant at 0.01 level of confidence

The Table 4.12 shows that the F values for competence and trustworthiness dimensions of credibility of teachers perceived by students studying in Majha, Malwa and Doaba regions are found to be 0.944 at (1068, 2) df and 1.922 at (2, 1068) df respectively which are not found to be significant even at the 0.05 level of confidence. However, F value for goodwill dimension of credibility of teachers is found to be 10.658 at (2, 1068) df which is found to be significant at 0.01 level of confidence. Hence, the null hypothesis, “There is no significant difference in the credibility of teachers of secondary school students w.r.t to region” is rejected for goodwill dimension of credibility of teachers.

In order to find significant difference between sub groups of Majha, Malwa and Doaba for goodwill dimension of credibility of teachers, Scheffe test has been used and the results are presented in Table 4.13.

TABLE 4.13: SUMMARY OF SCHEFFE POST HOC TEST ON THE SCORES OF GOODWILL DIMENSION OF CREDIBILITY DUE TO REGION

Region		Mean Difference (I-J)	Std. Error	Sig.
Majha	Malwa	0.58	0.30	0.15
Majha	Doaba	0.79*	0.30	0.03
Malwa	Doaba	1.38**	0.30	0.00
** The mean difference is significant at the 0.01 level.				
* The mean difference is significant at the 0.05 level.				

From the Table 4.13, it is clear that pairs of sub groups of Majha-Doaba and Malwa-Doaba on the scores of goodwill dimension of credibility of teachers are found to be significant either at 0.01 or 0.05 level of confidence. From mean analysis, it is found that students from Majha (23.96) and Malwa (24.54) region have scored more on goodwill than students from Doaba region (23.16). Meaning thereby, students from Majha and Malwa region have perceived goodwill of their teachers more than students from Doaba region.

DISCUSSION ON RESULTS

The results of the study revealed that students have perceived similar credibility of their English, Mathematics and Science teachers on competence, goodwill and trustworthiness. It is concluded that students from Majha and Malwa region have perceived goodwill of their teachers more than students from Doaba region.

4.6 SUMMARY OF t-TEST FOR GENDER, TYPE OF SCHOOL, SCHOOL BOARD AND SCHOOL SIZE ON THE SCORES OF DIFFERENT DIMENSIONS OF INSTITUTIONAL SUPPORT PROVIDED TO SECONDARY SCHOOL STUDENTS

For finding out significant differences due to gender, type of school, school board and school size on the scores of different dimensions of institutional support provided to secondary school students, t-test has been applied by considering the following hypothesis:

Hypothesis 3 a- There is no significant difference in the institutional support w.r.t (i) gender; (ii) type of school; (iii) school board; (iv) school size of secondary school students.

The Table 4.14 shows N, Mean, Std. deviation for gender, type of school, school board and school size, and dimensions of institutional support provided to secondary school students. Institutional support is to be studied in terms of Academic Support (academic advising, learning support and academic support total), Non-Academic Support (informational support, care and encouragement and non-academic support total) and Institutional Facilities (learning environment, basic infrastructure, extended facilities and institutional facilities total).

TABLE 4.14: SUMMARY OF N, MEAN AND STD. DEVIATION DIFFERENTIALS ON THE SCORES OF DIFFERENT DIMENSIONS OF INSTITUTIONAL SUPPORT FOR GENDER, TYPE OF SCHOOL, SCHOOL BOARD AND SCHOOL SIZE

Institutional Support	Variable	N	Mean	Std. Deviation
Gender				
Academic Advising	Female	621	31.51	3.656
	Male	450	30.87	3.948
Learning Support	Female	621	18.38	2.089
	Male	450	17.77	2.325
Academic Support Total	Female	621	49.89	5.339
	Male	450	48.64	5.829
Informational Support	Female	621	25.03	3.959
	Male	450	23.45	4.683
Care and Encouragement	Female	621	17.87	2.223
	Male	450	17.09	2.760
Non-Academic Support Total	Female	621	42.90	5.636
	Male	450	40.54	6.846
Learning Environment	Female	621	11.52	2.449
	Male	450	11.13	2.561
Basic Infrastructure	Female	621	15.04	3.170
	Male	450	13.96	3.187
Extended Facilities	Female	621	10.78	2.688
	Male	450	10.16	2.809
Institutional Facilities Total	Female	621	37.34	6.392
	Male	450	35.26	6.469
Type of School				
Academic Advising	Government	532	31.34	3.676
	Private	539	31.14	3.906
Learning Support	Government	532	18.23	2.146
	Private	539	18.02	2.270

Contd.

Institutional Support	Variable	N	Mean	Std. Deviation
Academic Support Total	Government	532	49.57	5.369
	Private	539	49.16	5.781
Informational Support	Government	532	24.81	4.156
	Private	539	23.93	4.487
Care and Encouragement	Government	532	17.72	2.466
	Private	539	17.37	2.507
Non-Academic Support Total	Government	532	42.53	6.138
	Private	539	41.29	6.363
Learning Environment	Government	532	11.14	2.555
	Private	539	11.57	2.432
Basic Infrastructure	Government	532	14.23	3.135
	Private	539	14.95	3.265
Extended Facilities	Government	532	10.28	2.735
	Private	539	10.75	2.757
Institutional Facilities Total	Government	532	35.65	6.446
	Private	539	37.27	6.466
School Board				
Academic Advising	PSEB	532	31.78	3.639
	CBSE	539	30.71	3.869
Learning Support	PSEB	532	18.35	2.092
	CBSE	539	17.90	2.302
Academic Support Total	PSEB	532	50.13	5.308
	CBSE	539	48.60	5.743
Informational Support	PSEB	532	25.40	4.055
	CBSE	539	23.35	4.389
Care and Encouragement	PSEB	532	17.86	2.378
	CBSE	539	17.23	2.563
Non-Academic Support Total	PSEB	532	43.26	5.882
	CBSE	539	40.58	6.381

Contd.

Institutional Support	Variable	N	Mean	Std. Deviation
Learning Environment	PSEB	532	11.74	2.523
	CBSE	539	10.97	2.423
Basic Infrastructure	PSEB	532	14.76	3.298
	CBSE	539	14.42	3.135
Extended Facilities	PSEB	532	10.30	2.894
	CBSE	539	10.73	2.595
Institutional Facilities Total	PSEB	532	36.81	6.714
	CBSE	539	36.12	6.277
School Size				
Academic Advising	Large	591	30.58	4.148
	Small	480	32.05	3.121
Learning Support	Large	591	17.84	2.397
	Small	480	18.47	1.903
Academic Support Total	Large	591	48.42	6.128
	Small	480	50.52	4.571
Informational Support	Large	591	23.73	4.387
	Small	480	25.15	4.171
Care and Encouragement	Large	591	17.38	2.631
	Small	480	17.75	2.296
Non-Academic Support Total	Large	591	41.11	6.508
	Small	480	42.89	5.846
Learning Environment	Large	591	11.07	2.503
	Small	480	11.71	2.458
Basic Infrastructure	Large	591	14.63	3.193
	Small	480	14.54	3.256
Extended Facilities	Large	591	10.78	2.661
	Small	480	10.19	2.836
Institutional Facilities Total	Large	591	36.48	6.548
	Small	480	36.44	6.454

The results of t-test for the significant difference in the scores of different dimensions of institutional support provided to secondary school students due to gender, type of school, school board and school size are presented in Table 4.15.

TABLE 4.15: SUMMARY OF t-TEST FOR GENDER, TYPE OF SCHOOL, SCHOOL BOARD AND SCHOOL SIZE ON THE SCORES OF DIFFERENT DIMENSIONS OF INSTITUTIONAL SUPPORT

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Gender								
Academic Advising	Equal variances assumed	2.00	0.16	2.73	1069	0.01**	0.64	0.23
Learning Support	Equal variances not assumed	4.86	0.03	4.43	904	0.00**	0.61	0.14
Academic Support Total	Equal variances assumed	3.11	0.08	3.64	1069	0.00**	1.25	0.34
Informational Support	Equal variances not assumed	14.83	0.00	5.82	866	0.00**	1.58	0.27
Care and Encouragement	Equal variances not assumed	16.57	0.00	4.93	836	0.00**	0.78	0.16
Non-Academic Support Total	Equal variances not assumed	13.68	0.00	5.99	850	0.00**	2.36	0.39
Learning Environment	Equal variances assumed	0.55	0.46	2.47	1069	0.01**	0.38	0.15
Basic Infrastructure	Equal variances assumed	0.35	0.55	5.49	1069	0.00**	1.08	0.20
Extended Facilities	Equal variances assumed	1.12	0.29	3.64	1069	0.00**	0.62	0.17
Institutional Facilities Total	Equal variances assumed	1.27	0.26	5.23	1069	0.00**	2.08	0.40

Contd.

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Type of School								
Academic Advising	Equal variances assumed	0.93	0.33	0.85	1069	0.39	0.20	0.23
Learning Support	Equal variances assumed	0.26	0.61	1.56	1069	0.12	0.21	0.14
Academic Support Total	Equal variances assumed	1.56	0.21	1.20	1069	0.23	0.41	0.34
Informational Support	Equal variances assumed	2.03	0.15	3.36	1069	0.00**	0.89	0.26
Care and Encouragement	Equal variances assumed	2.23	0.14	2.32	1069	0.02*	0.35	0.15
Non-Academic Support Total	Equal variances assumed	0.79	0.37	3.25	1069	0.00**	1.24	0.38
Learning Environment	Equal variances assumed	0.29	0.59	2.81	1069	0.01**	0.43	0.15
Basic Infrastructure	Equal variances assumed	0.76	0.38	3.68	1069	0.00**	0.72	0.20
Extended Facilities	Equal variances assumed	0.09	0.76	2.80	1069	0.01**	0.47	0.17
Institutional Facilities Total	Equal variances assumed	0.08	0.78	4.10	1069	0.00**	1.62	0.39
School Board								
Academic Advising	Equal variances assumed	1.66	0.20	4.68	1069	0.00**	1.08	0.23
Learning Support	Equal variances assumed	2.87	0.09	3.37	1069	0.00**	0.45	0.13
Academic Support Total	Equal variances assumed	2.41	0.12	4.52	1069	0.00**	1.53	0.34

Contd.

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Informational Support	Equal variances assumed	1.66	0.20	7.92	1069	0.00**	2.05	0.26
Care and Encouragement	Equal variances assumed	1.55	0.21	4.19	1069	0.00**	0.63	0.15
Non-Academic Support Total	Equal variances assumed	0.80	0.37	7.14	1069	0.00**	2.68	0.38
Learning Environment	Equal variances assumed	1.35	0.25	5.12	1069	0.00**	0.77	0.15
Basic Infrastructure	Equal variances assumed	1.47	0.23	1.71	1069	0.09	0.34	0.20
Extended Facilities	Equal variances not assumed	6.27	0.01	2.55	1053	0.01**	0.43	0.17
Institutional Facilities Total	Equal variances assumed	3.37	0.07	1.72	1069	0.09	0.68	0.40
School Size								
Academic Advising	Equal variances not assumed	30.74	0.00	6.65	1063	0.00**	1.48	0.22
Learning Support	Equal variances not assumed	19.09	0.00	4.76	1068	0.00**	0.63	0.13
Academic Support Total	Equal variances not assumed	30.73	0.00	6.43	1062	0.00**	2.10	0.33
Informational Support	Equal variances assumed	1.36	0.24	5.35	1069	0.00**	1.41	0.26
Care and Encouragement	Equal variances not assumed	6.86	0.01	2.47	1063	0.01**	0.37	0.15
Non-Academic Support Total	Equal variances assumed	3.23	0.07	4.67	1069	0.00**	1.78	0.38

Contd.

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2- tailed)	Mean Difference	Std. Error Difference
Learning Environment	Equal variances assumed	0.09	0.76	4.20	1069	0.00**	0.64	0.15
Basic Infrastructure	Equal variances assumed	2.32	0.13	0.42	1069	0.67	0.08	0.20
Extended Facilities	Equal variances assumed	3.09	0.08	3.51	1069	0.00**	0.59	0.17
Institutional Facilities Total	Equal variances assumed	0.35	0.55	0.09	1069	0.93	0.04	0.40
** Significant at 0.01 level of confidence								
* Significant at 0.05 level of confidence								

The Table 4.15 presents the gender wise differences on the scores of different dimensions of institutional support provided to secondary school students. It is clear from the table that t values for academic advising, learning support, academic support total, informational support, care and encouragement, non-academic support total, learning environment, basic infrastructure, extended facilities and institutional facilities total are 2.73, 4.43, 3.64, 5.82, 4.93, 5.99, 2.47, 5.49, 3.64 and 5.23 respectively which are found to be significant at the 0.01 level of confidence. Hence, the null hypothesis, "There is no significant difference in the institutional support w.r.t gender of secondary school students" is rejected. From the mean scores, it is found that female students have scored more on academic support (academic advising & learning support), non-academic support (informational support & care and encouragement) and institutional facilities (learning environment, basic infrastructure & extended facilities) than male students. Meaning thereby, female students have perceived academic support provided by the schools which includes comprehensive information, advice and feedback to succeed in academics, and encouragement for teamwork, understanding of concepts, motivation and supplementary help; non-academic support provided by the schools which includes advice, guidance, suggestions and useful information, and motivation; and

institutional facilities provided by the schools which include classrooms with platforms, adequate spacing and ventilation, classrooms of proper size with basic amenities like blackboard, duster, chalk, electricity, and library facilities and comfort in classrooms more than male students.

The table shows type of school wise differences on the scores of different dimensions of institutional support provided to secondary school students. It is clear from the table that t values for informational support, care and encouragement, non-academic support total, learning environment, basic infrastructure, extended facilities and institutional facilities total are 3.36, 2.32, 3.25, 2.81, 3.68, 2.80 and 4.10 respectively which are found to be significant either at the 0.01 or 0.05 level of confidence. However, it is not found to be significant at 0.05 level of confidence for academic advising, learning support and academic support total. Hence, the null hypothesis, “There is no significant difference in the institutional support w.r.t type of school of secondary school students” is rejected for informational support, care and encouragement, non-academic support total, learning environment, basic infrastructure, extended facilities and institutional facilities total. From the mean scores, it is found that government school students have scored more on non-academic support (informational support & care and encouragement) than private school students. Meaning thereby, government school students have perceived non-academic support provided by the schools which includes advice, guidance, suggestions and useful information; and motivation more than private school students. However, private school students have scored more on institutional facilities (learning environment, basic infrastructure & extended facilities) than government school students. Meaning thereby, private school students have perceived institutional facilities provided by the schools which include classrooms with platforms, adequate spacing and ventilation; classrooms of proper size with basic amenities like blackboard, duster, chalk, electricity; and library facilities and comfort in classrooms more than government school students.

From the table, school board wise differences on the scores of different dimensions of institutional support provided to secondary school students show that t values for academic advising, learning support, academic support total, informational support, care and encouragement, non-academic support total,

learning environment and extended facilities are 4.68, 3.37, 4.52, 7.92, 4.19, 7.14, 5.12 and 2.55 respectively which are found to be significant at the 0.01 level of confidence. However, it is not found to be significant at 0.05 level of confidence for basic infrastructure and institutional facilities total. Hence, the null hypothesis, “There is no significant difference in the institutional support w.r.t school board of secondary school students” is rejected for academic advising, learning support, academic support total, informational support, care and encouragement, non-academic support total, learning environment and extended facilities. From the mean scores, it is found that PSEB board students have scored more on academic support (academic advising & learning support), non-academic support (informational support & care and encouragement), and learning environment dimension of institutional facilities than CBSE board students. Meaning thereby, PSEB board students have perceived academic support provided by the schools which includes comprehensive information, advice and feedback to succeed in academics, and encouragement for teamwork, understanding of concepts, motivation and supplementary help; non-academic support provided by the schools which includes advice, guidance, suggestions and useful information, and motivation; and the facilities related to classrooms with platforms, adequate spacing and ventilation provided by the schools more than CBSE board students. However, CBSE board students have scored more on extended facilities dimension of institutional facilities than PSEB board students. Meaning thereby, CBSE board students have perceived library facilities and comfort in classrooms provided by the schools more than PSEB board students.

The table presents the school size wise differences on the scores of different dimensions of institutional support provided to secondary school students which show that t values for academic advising, learning support, academic support total, informational support, care and encouragement, non-academic support total, learning environment and extended facilities are 6.65, 4.76, 6.43, 5.35, 2.47, 4.67, 4.20 and 3.51 respectively which are found to be significant at the 0.01 level of confidence. However, it is not found to be significant at 0.05 level of confidence for basic infrastructure and institutional facilities total. Hence, the null hypothesis, “There is no significant difference in the institutional support w.r.t school size of

secondary school students” is rejected for academic advising, learning support, academic support total, informational support, care and encouragement, non-academic support total, learning environment and extended facilities. From the mean scores, it is found that students from small schools have scored more on academic support (academic advising & learning support), non-academic support (informational support & care and encouragement), and learning environment dimension of institutional facilities than students from large schools. Meaning thereby, students from small schools have perceived academic support provided by the schools which includes comprehensive information, advice and feedback to succeed in academics, and encouragement for teamwork, understanding of concepts, motivation and supplementary help; non-academic support provided by the schools which includes advice, guidance, suggestions and useful information, and motivation; and the facilities related to classrooms with platforms, adequate spacing and ventilation provided by the schools more than students from large schools. However, students studying in large schools have scored more on extended facilities dimension of institutional facilities than students studying in small schools. Meaning thereby, students from large schools have perceived library facilities and comfort in classrooms provided by the schools more than students from small schools.

DISCUSSION ON RESULTS

The results of the study revealed that female students have perceived academic support provided by the schools which includes comprehensive information, advice and feedback to succeed in academics, and encouragement for teamwork, understanding of concepts, motivation and supplementary help; non-academic support provided by the schools which includes advice, guidance, suggestions and useful information, and motivation; and institutional facilities provided by the schools which include classrooms with platforms, adequate spacing and ventilation, classrooms of proper size with basic amenities like blackboard, duster, chalk, electricity, and library facilities and comfort in classrooms more than male students. This finding is supported by Scott (2008) who concluded that gender perceptions of institutional support indicate a significant statistical difference in the practices impacting student success. From the results of the study, it is found that government school students have perceived non-academic support provided by the

schools which includes advice, guidance, suggestions and useful information; and motivation more than private school students. However, private school students have perceived institutional facilities provided by the schools which include classrooms with platforms, adequate spacing and ventilation; classrooms of proper size with basic amenities like blackboard, duster, chalk, electricity; and library facilities and comfort in classrooms more than government school students. This finding is supported by Khurshid and Khan (2012) who revealed that students of private sector schools have scored higher than public sector schools on school facilities, and private institutions provide good school facilities than public schools. The results revealed that PSEB board students have perceived academic support provided by the schools which includes comprehensive information, advice and feedback to succeed in academics, and encouragement for teamwork, understanding of concepts, motivation and supplementary help; non-academic support provided by the schools which includes advice, guidance, suggestions and useful information, and motivation; and the facilities related to classrooms with platforms, adequate spacing and ventilation provided by the schools more than CBSE board students. However, CBSE board students have perceived library facilities and comfort in classrooms provided by the schools more than PSEB board students. The findings revealed that students from small schools have perceived academic support provided by the schools which includes comprehensive information, advice and feedback to succeed in academics, and encouragement for teamwork, understanding of concepts, motivation and supplementary help; non-academic support provided by the schools which includes advice, guidance, suggestions and useful information, and motivation; and the facilities related to classrooms with platforms, adequate spacing and ventilation provided by the schools more than students from large schools. However, students from large schools have perceived library facilities and comfort in classrooms provided by the schools more than students from small schools.

4.7 SUMMARY OF ONE WAY ANOVA FOR REGION ON THE SCORES OF DIFFERENT DIMENSIONS OF INSTITUTIONAL SUPPORT PROVIDED TO SECONDARY SCHOOL STUDENTS

For finding out significant differences due to region on the scores of different dimensions of institutional support provided to secondary school students, One Way

ANOVA has been applied and the results are presented by considering the following hypothesis:

Hypothesis 3 b- There is no significant difference in the institutional support provided to secondary school students w.r.t to region.

The Table 4.16 shows N, Mean, Std. deviation for various sub groups on the scores of different dimensions of institutional support provided to secondary school students w.r.t region.

TABLE 4.16: SUMMARY OF N, MEAN AND STD. DEVIATION ON THE SCORES OF DIFFERENT DIMENSIONS OF INSTITUTIONAL SUPPORT WITH RESPECT TO REGION

Institutional Support	Region	N	Mean	Std. Deviation
Academic Advising	Majha	360	31.59	3.645
	Malwa	351	31.47	3.748
	Doaba	360	30.66	3.923
	Total	1071	31.24	3.793
Learning Support	Majha	360	18.41	2.016
	Malwa	351	18.21	2.125
	Doaba	360	17.74	2.422
	Total	1071	18.12	2.211
Academic Support Total	Majha	360	50.01	5.299
	Malwa	351	49.68	5.526
	Doaba	360	48.41	5.793
	Total	1071	49.36	5.581
Informational Support	Majha	360	24.83	4.490
	Malwa	351	24.52	4.080
	Doaba	360	23.76	4.394
	Total	1071	24.37	4.347

Contd.

Institutional Support	Region	N	Mean	Std. Deviation
Care and Encouragement	Majha	360	17.66	2.496
	Malwa	351	17.79	2.440
	Doaba	360	17.18	2.503
	Total	1071	17.54	2.492
Non-Academic Support Total	Majha	360	42.48	6.483
	Malwa	351	42.32	6.014
	Doaba	360	40.94	6.230
	Total	1071	41.91	6.280
Learning Environment	Majha	360	11.64	2.361
	Malwa	351	11.13	2.583
	Doaba	360	11.29	2.539
	Total	1071	11.35	2.502
Basic Infrastructure	Majha	360	14.58	3.039
	Malwa	351	14.79	3.403
	Doaba	360	14.40	3.210
	Total	1071	14.59	3.220
Extended Facilities	Majha	360	10.28	2.809
	Malwa	351	10.86	2.698
	Doaba	360	10.42	2.730
	Total	1071	10.52	2.755
Institutional Facilities Total	Majha	360	36.51	6.314
	Malwa	351	36.78	6.776
	Doaba	360	36.11	6.418
	Total	1071	36.46	6.503

The Table 4.17 shows the One Way ANOVA results for significant difference due to region on the scores of different dimensions of institutional support provided to secondary school students.

TABLE 4.17: SUMMARY OF ONE WAY ANOVA ON THE SCORES OF DIFFERENT DIMENSIONS OF INSTITUTIONAL SUPPORT W.R.T REGION

Institutional Support	Source	Sum of Squares	Df	Mean Square	F	Sig.
Academic Advising	Between Groups	183.991	2	91.995	6.459	0.00**
	Within Groups	15210.8	1068	14.242		
	Total	15394.8	1070			
Learning Support	Between Groups	84.177	2	42.089	8.735	0.00**
	Within Groups	5146.04	1068	4.818		
	Total	5230.22	1070			
Academic Support Total	Between Groups	513.483	2	256.741	8.355	0.00**
	Within Groups	32819.4	1068	30.73		
	Total	33332.9	1070			
Informational Support	Between Groups	218.782	2	109.391	5.843	0.00**
	Within Groups	19996	1068	18.723		
	Total	20214.8	1070			
Care and Encouragement	Between Groups	74.347	2	37.174	6.043	0.00**
	Within Groups	6569.47	1068	6.151		
	Total	6643.82	1070			
Non-Academic Support Total	Between Groups	518.522	2	259.261	6.643	0.00**
	Within Groups	41679.7	1068	39.026		
	Total	42198.2	1070			
Learning Environment	Between Groups	50.244	2	25.122	4.035	0.02*
	Within Groups	6648.93	1068	6.226		
	Total	6699.17	1070			
Basic Infrastructure	Between Groups	27.76	2	13.88	1.339	0.26
	Within Groups	11067.3	1068	10.363		
	Total	11095.1	1070			
Extended Facilities	Between Groups	65.631	2	32.816	4.351	0.01**
	Within Groups	8055.76	1068	7.543		
	Total	8121.4	1070			
Institutional Facilities Total	Between Groups	81.985	2	40.993	0.969	0.38
	Within Groups	45172.3	1068	42.296		
	Total	45254.3	1070			
** Significant at 0.01 level of confidence						
* Significant at 0.05 level of confidence						

From the Table 4.17, it is clear that F values for academic advising, learning support, academic support total, informational support, care and encouragement, non-academic support total, learning environment and extended facilities are found to be 6.459, 8.735, 8.355, 5.843, 6.043, 6.643, 4.035 and 4.351 respectively at (2, 1068) df which are found to be significant either at 0.01 or 0.05 level of confidence except basic infrastructure and institutional facilities total. Hence, the null hypothesis, “There is no significant difference in the institutional support provided to secondary school students w.r.t to region” is rejected except basic infrastructure and institutional facilities total.

In order to find significant difference between sub groups of Majha, Malwa and Doaba for academic advising, learning support, academic support total, informational support, care and encouragement, non-academic support total, learning environment and extended facilities provided to students, Scheffe test has been used and the results are presented in Table 4.18.

TABLE 4.18: SUMMARY OF SCHEFFE POST HOC TEST ON THE SCORES OF INSTITUTIONAL SUPPORT DUE TO REGION

Institutional Support	Region		Mean Difference (I-J)	Std. Error	Sig.
Academic Advising	Majha (31.59)	Malwa (31.47)	0.13	0.28	0.90
	Majha (31.59)	Doaba (30.66)	0.93**	0.28	0.00
	Malwa (31.47)	Doaba (30.66)	0.81*	0.28	0.02
Learning Support	Majha (18.41)	Malwa (18.21)	0.20	0.16	0.48
	Majha (18.41)	Doaba (17.74)	0.67**	0.16	0.00
	Malwa (18.21)	Doaba (17.74)	0.47*	0.16	0.02
Academic Support Total	Majha (50.01)	Malwa (49.68)	0.33	0.42	0.73
	Majha (50.01)	Doaba (48.41)	1.60**	0.41	0.00
	Malwa (49.68)	Doaba (48.41)	1.27**	0.42	0.01
Informational Support	Majha (24.83)	Malwa (24.52)	0.30	0.32	0.65
	Majha (24.83)	Doaba (23.76)	1.07**	0.32	0.00
	Malwa (24.52)	Doaba (23.76)	0.77	0.32	0.06

Contd.

Institutional Support	Region		Mean Difference (I-J)	Std. Error	Sig.
Care and Encouragement	Majha (17.66)	Malwa (17.79)	0.14	0.19	0.76
	Majha (17.66)	Doaba (17.18)	0.48*	0.18	0.04
	Malwa (17.79)	Doaba (17.18)	0.61**	0.19	0.00
Non-Academic Support Total	Majha (42.48)	Malwa (42.32)	0.16	0.47	0.94
	Majha (42.48)	Doaba (40.94)	1.55**	0.47	0.00
	Malwa (42.32)	Doaba (40.94)	1.38**	0.47	0.01
Learning Environment	Majha (11.64)	Malwa (11.13)	0.52*	0.19	0.02
	Majha (11.64)	Doaba (11.29)	0.36	0.19	0.16
	Malwa (11.13)	Doaba (11.29)	0.16	0.19	0.68
Extended Facilities	Majha (10.28)	Malwa (10.86)	0.58*	0.21	0.02
	Majha (10.28)	Doaba (10.42)	0.14	0.20	0.79
	Malwa (10.86)	Doaba (10.42)	0.44	0.21	0.10
** The mean difference is significant at the 0.01 level.					
* The mean difference is significant at the 0.05 level.					

From the Table 4.18, it is clear that pairs of sub groups of Majha-Doaba and Malwa-Doaba on the scores of academic advising, learning support, academic support total, care and encouragement and non-academic support total are found to be significant either at 0.01 or 0.05 level of confidence. From mean analysis, it is found that students from Majha and Malwa region have scored more on academic support (academic advising & learning support), care and encouragement, and non-academic support total than students from Doaba region. Meaning thereby, students from Majha and Malwa region have perceived academic support provided by the schools which includes comprehensive information, advice and feedback to succeed in academics, and encouragement for teamwork, understanding of concepts, motivation and supplementary help; motivation provided by the schools; and services and resources provided by the school to promote and facilitate their physical, social and emotional development more than students from Doaba region.

The table shows that pair of sub groups of Majha-Doaba on the scores of informational support is found to be significant at 0.01 level of confidence. From

mean analysis, it is found that students from Majha region have scored more on informational support dimension of non-academic support than students from Doaba region. Meaning thereby, students from Majha region have perceived help, advice, guidance, suggestions and useful information provided by schools more than students from Doaba region.

It is shown in the table that pair of sub groups of Majha-Malwa on the scores of learning environment and extended facilities is found to be significant at 0.05 level of confidence. From mean analysis, it is found that students from Majha region have scored more on learning environment dimension of institutional facilities provided by schools than students from Malwa region. Meaning thereby, students from Majha region have perceived the facilities related to classrooms with platforms, adequate spacing and ventilation provided by the schools more than students from Malwa region. However, students from Malwa region have scored more on extended facilities dimension of institutional facilities provided by schools than students from Majha region. Meaning thereby, students from Malwa region have perceived library facilities and comfort in classrooms provided by schools more than students from Majha region.

DISCUSSION ON RESULTS

It is shown from the results that students from Majha and Malwa region have perceived academic support provided by the schools which includes comprehensive information, advice and feedback to succeed in academics, and encouragement for teamwork, understanding of concepts, motivation and supplementary help; motivation provided by the schools; and services and resources provided by the school to promote and facilitate their physical, social and emotional development more than students from Doaba region. The results of the study revealed that students from Majha region have perceived help, advice, guidance, suggestions and useful information provided by schools more than students from Doaba region. Students from Majha region have perceived the facilities related to classrooms with platforms, adequate spacing and ventilation provided by the schools more than students from Malwa region. However, students from Malwa region have perceived library facilities and comfort in classrooms provided by schools more than students from Majha region.

4.8 SUMMARY OF t-TEST FOR TYPE OF SCHOOL, SCHOOL BOARD, TYPE OF FAMILY, GENDER, SCHOOL SIZE AND LOCALE ON THE SCORES OF DIFFERENT DIMENSIONS OF ACHIEVEMENT MOTIVATION OF SECONDARY SCHOOL STUDENTS

For finding out significant differences due to type of school, school board, type of family, gender, school size and locale on the scores of different dimensions of achievement motivation of secondary school students, t-test has been applied by considering the following hypothesis:

Hypothesis 4 a- There is no significant difference in the achievement motivation w.r.t (i) type of school; (ii) school board; (iii) type of family; (iv) gender; (v) school size; (vi) locale of secondary school students.

The Table 4.19 shows N, Mean, Std. deviation for type of school, school board, type of family, gender, school size and locale, and the five dimensions of achievement motivation of secondary school students i.e. work methods, academic challenge, attitude towards education and teachers, sports and dramatics and general interests, and the total score of achievement motivation.

TABLE 4.19: SUMMARY OF N, MEAN AND STD. DEVIATION DIFFERENTIALS ON THE SCORES OF DIFFERENT DIMENSIONS OF ACHIEVEMENT MOTIVATION OF SECONDARY SCHOOL STUDENTS FOR TYPE OF SCHOOL, SCHOOL BOARD, TYPE OF FAMILY, GENDER, SCHOOL SIZE AND LOCALE

Achievement Motivation	Variable	N	Mean	Std. Deviation
Type of School				
Work Methods	Government	532	32.90	5.152
	Private	539	32.90	6.104
Academic Challenge	Government	532	31.20	4.551
	Private	539	30.90	5.019
Attitude Towards Education and Teachers	Government	532	21.87	4.528
	Private	539	22.41	4.486
Sports And Dramatics	Government	532	11.87	3.217
	Private	539	11.72	3.384
General Interests	Government	532	12.21	2.782
	Private	539	11.99	2.934

Contd.

Achievement Motivation	Variable	N	Mean	Std. Deviation
Achievement Motivation Total	Government	532	110.05	13.297
	Private	539	109.91	16.479
School Board				
Work Methods	PSEB	532	33.17	5.918
	CBSE	539	32.63	5.362
Academic Challenge	PSEB	532	31.09	5.207
	CBSE	539	31.01	4.349
Attitude Towards Education and Teachers	PSEB	532	21.84	4.771
	CBSE	539	22.45	4.225
Sports And Dramatics	PSEB	532	12.56	2.997
	CBSE	539	11.03	3.412
General Interests	PSEB	532	12.11	3.008
	CBSE	539	12.09	2.710
Achievement Motivation Total	PSEB	532	110.77	16.153
	CBSE	539	109.21	13.688
Type of Family				
Work Methods	Nuclear	661	32.95	5.678
	Joint	410	32.81	5.607
Academic Challenge	Nuclear	661	30.93	4.789
	Joint	410	31.24	4.798
Attitude Towards Education and Teachers	Nuclear	661	22.30	4.361
	Joint	410	21.90	4.742
Sports And Dramatics	Nuclear	661	11.72	3.259
	Joint	410	11.90	3.369
General Interests	Nuclear	661	12.18	2.868
	Joint	410	11.97	2.848
Achievement Motivation Total	Nuclear	661	110.08	14.660
	Joint	410	109.82	15.490
Gender				
Work Methods	Female	621	34.42	4.604
	Male	450	30.80	6.257
Academic Challenge	Female	621	31.59	4.592
	Male	450	30.30	4.964
Attitude Towards Education and Teachers	Female	621	23.27	3.715
	Male	450	20.59	5.029

Contd.

Achievement Motivation	Variable	N	Mean	Std. Deviation
Sports And Dramatics	Female	621	11.70	3.358
	Male	450	11.92	3.222
General Interests	Female	621	12.29	2.713
	Male	450	11.83	3.035
Achievement Motivation Total	Female	621	113.28	13.012
	Male	450	105.43	16.277
School size				
Work Methods	Large	591	33.14	5.220
	Small	480	32.60	6.128
Academic Challenge	Large	591	31.21	4.130
	Small	480	30.85	5.497
Attitude Towards Education and Teachers	Large	591	22.23	4.275
	Small	480	22.03	4.791
Sports And Dramatics	Large	591	11.33	3.342
	Small	480	12.37	3.161
General Interests	Large	591	12.33	2.699
	Small	480	11.81	3.028
Achievement Motivation Total	Large	591	110.24	13.354
	Small	480	109.66	16.769
Locale				
Work Methods	Urban	772	33.00	5.596
	Rural	299	32.64	5.784
Academic Challenge	Urban	772	31.13	4.683
	Rural	299	30.84	5.067
Attitude Towards Education and Teachers	Urban	772	22.16	4.450
	Rural	299	22.11	4.678
Sports And Dramatics	Urban	772	11.74	3.263
	Rural	299	11.94	3.399
General Interests	Urban	772	12.33	2.764
	Rural	299	11.51	3.024
Achievement Motivation Total	Urban	772	110.34	14.759
	Rural	299	109.04	15.510

The results of t-test for the significant difference in the scores of different dimensions of achievement motivation of secondary school students due to type of school, school board, type of family, gender, school size and locale are presented in the Table 4.20.

TABLE 4.20: SUMMARY OF t-TEST FOR TYPE OF SCHOOL, SCHOOL BOARD, TYPE OF FAMILY, GENDER, SCHOOL SIZE AND LOCALE ON THE SCORES OF DIFFERENT DIMENSIONS OF ACHIEVEMENT MOTIVATION OF SECONDARY SCHOOL STUDENTS

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Type of School								
Work Methods	Equal variances not assumed	11.88	0.00	0.00	1044	1.00	0.00	0.34
Academic Challenge	Equal variances assumed	1.26	0.26	1.02	1069	0.31	0.30	0.29
Attitude Towards Education and Teachers	Equal variances assumed	0.00	0.99	1.96	1069	0.05*	0.54	0.28
Sports And Dramatics	Equal variances assumed	0.87	0.35	0.73	1069	0.47	0.15	0.20
General Interests	Equal variances assumed	0.21	0.64	1.30	1069	0.19	0.23	0.17
Achievement Motivation Total	Equal variances not assumed	15.88	0.00	0.14	1028	0.88	0.13	0.91
School Board								
Work Methods	Equal variances assumed	2.87	0.09	1.56	1069	0.12	0.54	0.34
Academic Challenge	Equal variances not assumed	14.08	0.00	0.28	1031	0.78	0.08	0.29
Attitude Towards Education and Teachers	Equal variances not assumed	9.46	0.00	2.20	1050	0.03*	0.61	0.28
Sports And Dramatics	Equal variances not assumed	13.84	0.00	7.81	1055	0.00**	1.53	0.20
General Interests	Equal variances assumed	2.73	0.10	0.08	1069	0.93	0.01	0.17

Contd.

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Achievement Motivation Total	Equal variances not assumed	18.3	0.00	1.70	1037	0.09	1.56	0.92
Type of Family								
Work Methods	Equal variances assumed	0.14	0.71	0.41	1069	0.68	0.15	0.36
Academic Challenge	Equal variances assumed	0.05	0.82	1.05	1069	0.29	0.32	0.30
Attitude Towards Education and Teachers	Equal variances not assumed	3.87	0.05	1.37	812	0.17	0.40	0.29
Sports And Dramatics	Equal variances assumed	0.04	0.84	0.86	1069	0.39	0.18	0.21
General Interests	Equal variances assumed	0.77	0.38	1.15	1069	0.25	0.21	0.18
Achievement Motivation Total	Equal variances assumed	0.51	0.48	0.27	1069	0.79	0.25	0.94
Gender								
Work Methods	Equal variances not assumed	52.85	0.00	10.40	783	0.00**	3.62	0.35
Academic Challenge	Equal variances assumed	2.46	0.12	4.39	1069	0.00**	1.29	0.29
Attitude Towards Education and Teachers	Equal variances not assumed	63.25	0.00	9.58	785	0.00**	2.68	0.28
Sports And Dramatics	Equal variances assumed	2.96	0.09	1.06	1069	0.29	0.22	0.20
General Interests	Equal variances not assumed	6.32	0.01	2.60	901	0.01**	0.47	0.18
Achievement Motivation Total	Equal variances not assumed	16.80	0.00	8.45	832	0.00**	7.85	0.93

Contd.

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
School Size								
Work Methods	Equal variances not assumed	12.41	0.00	1.54	944	0.12	0.54	0.35
Academic Challenge	Equal variances not assumed	23.14	0.00	1.19	870	0.24	0.36	0.30
Attitude Towards Education and Teachers	Equal variances not assumed	11.02	0.00	0.71	970	0.48	0.20	0.28
Sports And Dramatics	Equal variances not assumed	4.87	0.03	5.22	1045	0.00**	1.04	0.20
General Interests	Equal variances assumed	2.81	0.09	2.93	1069	0.00**	0.51	0.18
Achievement Motivation Total	Equal variances not assumed	28.41	0.00	0.61	905	0.54	0.58	0.94
Locale								
Work Methods	Equal variances assumed	1.68	0.19	0.92	1069	0.36	0.35	0.38
Academic Challenge	Equal variances assumed	1.29	0.26	0.89	1069	0.37	0.29	0.33
Attitude Towards Education and Teachers	Equal variances assumed	0.95	0.33	0.14	1069	0.89	0.04	0.31
Sports And Dramatics	Equal variances assumed	0.15	0.70	0.89	1069	0.38	0.20	0.22
General Interests	Equal variances assumed	0.63	0.43	4.21	1069	0.00**	0.81	0.19
Achievement Motivation Total	Equal variances assumed	2.57	0.11	1.27	1069	0.20	1.30	1.02
** Significant at 0.01 level of confidence								
* Significant at 0.05 level of confidence								

The Table 4.20 shows type of school wise differences on the scores of different dimensions of achievement motivation of secondary school students. It is clear from the table that t value for attitude towards education and teachers is 1.96 which is found to be significant at the 0.05 level of confidence. However, it is not found to be significant at 0.05 level of confidence for work methods, academic challenge, sports and dramatics and general interests dimensions and the total score of achievement motivation. Hence, the null hypothesis, "There is no significant difference in the achievement motivation w.r.t type of school of secondary school students" is rejected for attitude towards education and teachers dimension of achievement motivation. From the mean scores, it is found that students studying in private schools have scored more on attitude towards education and teachers than students studying in government schools. Meaning thereby, private school students are having better attitude towards academics than government school students.

From the table, school board wise differences on the scores of different dimensions of achievement motivation of secondary school students show that t values for attitude towards education and teachers, and sports and dramatics are 2.20 and 7.81 respectively which are found to be significant either at the 0.01 or 0.05 level of confidence. However, it is not found to be significant at 0.05 level of confidence for work methods, academic challenge and general interests dimensions and the total score of achievement motivation. Hence, the null hypothesis, "There is no significant difference in the achievement motivation w.r.t school board of secondary school students" is rejected for attitude towards education and teachers, and sports and dramatics dimensions of achievement motivation. From the mean scores, it is found that CBSE board students have scored more on attitude towards education and teachers than PSEB board students. Meaning thereby, CBSE board students are having better attitude towards academics than PSEB board students. However, PSEB board students have scored more on sports and dramatics than CBSE board students. Meaning thereby, PSEB board students have more interest towards sports and dramatics than CBSE board students.

From the table, type of family wise differences on the scores of different dimensions of achievement motivation of secondary school students show that t values for work methods, academic challenge, attitude towards education and

teachers, sports and dramatics, general interests and achievement motivation total are 0.41, 1.05, 1.37, 0.86, 1.15 and 0.27 respectively which are not found to be significant even at the 0.05 level of confidence. Hence, the null hypothesis, “There is no significant difference in the achievement motivation w.r.t type of family of secondary school students” is not rejected. Meaning thereby, students belonging to nuclear and joint families have similar achievement motivation.

The table presents the gender wise differences on the scores of different dimensions of achievement motivation of secondary school students. It is clear from the table that t values for work methods, academic challenge, attitude towards education and teachers, general interests and achievement motivation total are 10.4, 4.39, 9.58, 2.60 and 8.45 respectively which are found to be significant at the 0.01 level of confidence. However, it is not found to be significant at 0.05 level of confidence for sports and dramatics dimension of achievement motivation. Hence, the null hypothesis, “There is no significant difference in the achievement motivation w.r.t gender of secondary school students” is rejected for the total score of achievement motivation and its dimensions i.e. work methods, academic challenge, attitude towards education and teachers, general interests. From the mean scores, it is found that female students have scored more on the total score of achievement motivation and its dimensions i.e. work methods, academic challenge, attitude towards education and teachers, general interests than male students. Meaning thereby, female students are having higher achievement motivation than male students. It is also found that female students have displayed more diligence in the preparation, execution and completion of academic tasks; are more able to establish goals, work on them and carry them out with full dedication; are having better attitude towards academics; and have better viewpoint about life, and perception about using the leisure time constructively than male students.

The table presents the school size wise differences on the scores of different dimensions of achievement motivation of secondary school students which show that t values for sports and dramatics and general interests are 5.22 and 2.93 respectively which are found to be significant at the 0.01 level of confidence. However, it is not found to be significant at 0.05 level of confidence for work

methods, academic challenge and attitude towards education and teachers dimensions and the total score of achievement motivation. Hence, the null hypothesis, “There is no significant difference in the achievement motivation w.r.t school size of secondary school students” is rejected for sports and dramatics and general interests dimensions of achievement motivation. From the mean scores, it is found that small school students have scored more on sports and dramatics than large school students. Meaning thereby, small school students have more interest towards sports and dramatics than large school students. However, large school students have scored more on general interests than small school students. Meaning thereby, large school students have better viewpoint about life, and perception about using the leisure time constructively than small school students.

The table shows the locale wise differences on the scores of different dimensions of achievement motivation of secondary school students which show that t value for general interests is 4.21 which is found to be significant at the 0.01 level of confidence. However, it is not found to be significant at 0.05 level of confidence for work methods, academic challenge, attitude towards education and teachers and sports and dramatics dimensions and the total score of achievement motivation. Hence, the null hypothesis, “There is no significant difference in the achievement motivation w.r.t locale of secondary school students” is rejected for general interests dimension of achievement motivation. From the mean scores, it is found that urban area students have scored more on general interests than rural area students. Meaning thereby, urban area students have better viewpoint about life, and perception about using the leisure time constructively than rural area students.

DISCUSSION ON RESULTS

From the results of the study, it is found that private school students are having better attitude towards academics than government school students. Similar results are reported by Kumari and Qasim (2015), Chauhan (2016) and Solanki (2017) who found that private school students are having more achievement motivation than government school students. The findings revealed that CBSE board students are having better attitude towards academics than PSEB board students.

However, PSEB board students have more interest towards sports and dramatics than CBSE board students. The results revealed that students belonging to nuclear and joint families have similar achievement motivation. Similarly, Ogwa (2018) found that family type have no influence on the academic achievement motivation of senior secondary students. It is shown from the results that female students are having higher achievement motivation than male students. It is also found that female students have displayed more diligence in the preparation, execution and completion of academic tasks; are more able to establish goals, work on them and carry them out with full dedication; are having better attitude towards academics; and have better viewpoint about life, and perception about using the leisure time constructively than male students. Similarly, Hotaman and Yuksel-Sahin (2010), Shekhar and Devi (2012), Wani and Masih (2015), Srivastava and Pant (2015), Shekhar and Choudhary (2017), Sutha and Shirlin (2017) and Qadri (2017) concluded that female students have more achievement motivation than male students. It is revealed from the results that small school students have more interest towards sports and dramatics than large school students. However, large school students have better viewpoint about life, and perception about using the leisure time constructively than small school students. It is found that urban area students have better viewpoint about life, and perception about using the leisure time constructively than rural area students. This finding is in line with the findings of Kishor and Rana (2010), Payyanatt and Manichander (2012), Pan and Guha (2015), Chauhan (2016), Mishra (2017), Shekhar and Choudhary (2017) and Solanki (2017) who found that students from urban areas have more achievement motivation than rural students.

4.9 SUMMARY OF ONE WAY ANOVA ON THE SCORES OF ACHIEVEMENT MOTIVATION OF SECONDARY SCHOOL STUDENTS

For finding out significant differences due to region and family size on the scores of different dimensions of achievement motivation of secondary school students, One Way ANOVA has been applied and the results are presented below.

4.9.1 SUMMARY OF ONE WAY ANOVA FOR REGION ON THE SCORES OF DIFFERENT DIMENSIONS OF ACHIEVEMENT MOTIVATION OF SECONDARY SCHOOL STUDENTS

The results of One Way ANOVA are presented by considering the following hypothesis:

Hypothesis 4 b- There is no significant difference in the achievement motivation of secondary school students w.r.t to region.

The Table 4.21 shows N, Mean, Std. deviation for various sub groups on the scores of different dimensions and the total score of achievement motivation of secondary school students w.r.t region.

TABLE 4.21: SUMMARY OF N, MEAN AND STD. DEVIATION ON THE SCORES OF DIFFERENT DIMENSIONS OF ACHIEVEMENT MOTIVATION WITH RESPECT TO REGION

Achievement Motivation	Variable	N	Mean	Std. Deviation
Work Methods	Majha	360	32.55	5.960
	Malwa	351	33.44	4.943
	Doaba	360	32.71	5.942
	Total	1071	32.90	5.649
Academic Challenge	Majha	360	30.85	4.989
	Malwa	351	31.51	4.109
	Doaba	360	30.80	5.176
	Total	1071	31.05	4.792
Attitude Towards Education and Teachers	Majha	360	21.55	4.866
	Malwa	351	22.43	4.168
	Doaba	360	22.46	4.422
	Total	1071	22.14	4.513
Sports And Dramatics	Majha	360	12.06	3.332
	Malwa	351	11.53	3.172
	Doaba	360	11.78	3.381
	Total	1071	11.79	3.301
General Interests	Majha	360	12.28	2.589
	Malwa	351	12.66	2.508
	Doaba	360	11.36	3.265
	Total	1071	12.10	2.861
Achievement Motivation Total	Majha	360	109.29	15.607
	Malwa	351	111.58	13.129
	Doaba	360	109.11	15.911
	Total	1071	109.98	14.977

The Table 4.22 shows the One Way ANOVA results for significant difference due to region on the scores of different dimensions and the total score of achievement motivation of secondary school students.

TABLE 4.22: SUMMARY OF ONE WAY ANOVA ON THE SCORES OF DIFFERENT DIMENSIONS OF ACHIEVEMENT MOTIVATION W.R.T REGION

Achievement Motivation	Source	Sum of Squares	Df	Mean Square	F	Sig.
Work Methods	Between Groups	161.308	2	80.654	2.535	0.08
	Within Groups	33979.4	1068	31.816		
	Total	34140.7	1070			
Academic Challenge	Between Groups	110.149	2	55.074	2.404	0.09
	Within Groups	24463.3	1068	22.906		
	Total	24573.5	1070			
Attitude Towards Education and Teachers	Between Groups	189.53	2	94.765	4.686	0.01**
	Within Groups	21600.3	1068	20.225		
	Total	21789.9	1070			
Sports and Dramatics	Between Groups	50.304	2	25.152	2.313	0.10
	Within Groups	11611.7	1068	10.872		
	Total	11662	1070			
General Interests	Between Groups	320.22	2	160.11	20.269	0.00**
	Within Groups	8436.49	1068	7.899		
	Total	8756.71	1070			
Achievement Motivation Total	Between Groups	1339.43	2	669.714	2.997	0.05*
	Within Groups	238657	1068	223.462		
	Total	239997	1070			
** Significant at 0.01 level of confidence						
* Significant at 0.05 level of confidence						

From the above table, it is clear that the F values for attitude towards education and teachers, and general interests dimensions and the total score of achievement motivation are found to be 4.686, 20.269 and 2.997 respectively at (2, 1068) df which are found to be significant either at 0.01 or 0.05 level of confidence

except work methods, academic challenge, and sports and dramatics dimensions of achievement motivation. Hence, the null hypothesis, “There is no significant difference in the achievement motivation of secondary school students w.r.t region” is rejected except work methods, academic challenge, and sports and dramatics dimensions of achievement motivation.

In order to find significant difference between sub groups of Majha, Malwa and Doaba for attitude towards education and teachers, and general interests dimensions and the total score of achievement motivation, Scheffe test has been used and the results are presented in Table 4.23.

TABLE 4.23: SUMMARY OF SCHEFFE POST HOC TEST ON THE SCORES OF ACHIEVEMENT MOTIVATION DUE TO REGION

Achievement Motivation	Region		Mean Difference (I-J)	Std. Error	Sig.
Attitude Towards Education and Teachers	Majha	Malwa	0.88*	0.34	0.03
	Majha	Doaba	0.90*	0.34	0.03
	Malwa	Doaba	0.03	0.34	1
General Interests	Majha	Malwa	0.38	0.21	0.20
	Majha	Doaba	0.92**	0.21	0.00
	Malwa	Doaba	1.30**	0.21	0.00
Achievement Motivation Total	Majha	Malwa	2.28	1.12	0.13
	Majha	Doaba	0.19	1.11	0.99
	Malwa	Doaba	2.47	1.12	0.09
** The mean difference is significant at the 0.01 level.					
* The mean difference is significant at the 0.05 level.					

From the Table 4.23, it is clear that pairs of sub groups of Majha-Malwa and Majha-Doaba on the scores of attitude towards education and teachers dimension of achievement motivation of secondary school students are found to be significant at 0.05 level of confidence. From mean analysis, it is found that students from Malwa (22.43) and Doaba (22.46) region have scored more on attitude towards education and teachers than students from Majha region (21.55). Meaning thereby, students from Malwa and Doaba region are having better attitude towards academics than students from Majha region.

The table shows that pairs of sub groups of Majha-Doaba and Malwa-Doaba on the scores of general interests dimension of achievement motivation of secondary school students are found to be significant at 0.01 level of confidence. From mean analysis, it is found that students from Majha (12.28) and Malwa (12.66) region have scored more on general interests than students from Doaba region (11.36). Meaning thereby, students from Majha and Malwa region have better viewpoint about life, and perception about using the leisure time constructively than students from Doaba region.

4.9.2 SUMMARY OF ONE WAY ANOVA FOR FAMILY SIZE ON THE SCORES OF DIFFERENT DIMENSIONS OF ACHIEVEMENT MOTIVATION OF SECONDARY SCHOOL STUDENTS

The results of One Way ANOVA are presented by considering the following hypothesis:

Hypothesis 4 c- There is no significant difference in the achievement motivation of secondary school students w.r.t to family size.

The Table 4.24 shows N, Mean, Std. deviation for various sub groups on the scores of different dimensions and the total score of achievement motivation of secondary school students w.r.t family size.

TABLE 4.24: SUMMARY OF N, MEAN AND STD. DEVIATION ON THE SCORES OF DIFFERENT DIMENSIONS OF ACHIEVEMENT MOTIVATION WITH RESPECT TO FAMILY SIZE

Achievement Motivation	Variable	N	Mean	Std. Deviation
Work Methods	3	39	32.44	6.193
	4	342	32.63	5.994
	5	288	33.11	5.480
	6	179	32.49	5.242
	7	70	33.86	4.953
	8	153	33.24	5.775
	Total	1071	32.90	5.649

Contd.

Achievement Motivation	Variable	N	Mean	Std. Deviation
Academic Challenge	3	39	31.59	4.339
	4	342	31.01	4.695
	5	288	31.00	4.483
	6	179	30.82	4.829
	7	70	31.59	5.369
	8	153	31.12	5.375
	Total	1071	31.05	4.792
Attitude Towards Education and Teachers	3	39	22.28	4.413
	4	342	22.00	4.611
	5	288	22.22	4.525
	6	179	21.87	4.551
	7	70	23.26	3.698
	8	153	22.09	4.576
	Total	1071	22.14	4.513
Sports And Dramatics	3	39	12.05	3.276
	4	342	11.69	3.318
	5	288	11.84	3.159
	6	179	11.86	3.239
	7	70	11.97	3.266
	8	153	11.69	3.646
	Total	1071	11.79	3.301
General Interests	3	39	12.13	2.802
	4	342	12.10	2.930
	5	288	12.33	2.768
	6	179	11.91	2.739
	7	70	12.47	2.827
	8	153	11.71	3.025
	Total	1071	12.10	2.861
Achievement Motivation Total	3	39	110.49	14.444
	4	342	109.44	15.416
	5	288	110.51	14.399
	6	179	108.93	14.299
	7	70	113.14	13.975
	8	153	109.86	16.337
	Total	1071	109.98	14.977

The Table 4.25 shows the One Way ANOVA results for significant difference due to family size on the scores of different dimensions and the total score of achievement motivation of secondary school students.

TABLE 4.25: SUMMARY OF ONE WAY ANOVA ON THE SCORES OF DIFFERENT DIMENSIONS OF ACHIEVEMENT MOTIVATION W.R.T FAMILY SIZE

Achievement Motivation	Source	Sum of Squares	Df	Mean Square	F	Sig.
Work Methods	Between Groups	157.765	5	31.553	0.989	0.423
	Within Groups	33982.9	1065	31.909		
	Total	34140.7	1070			
Academic Challenge	Between Groups	43.509	5	8.702	0.378	0.864
	Within Groups	24530	1065	23.033		
	Total	24573.5	1070			
Attitude Towards Education and Teachers	Between Groups	110.311	5	22.062	1.084	0.368
	Within Groups	21679.5	1065	20.356		
	Total	21789.9	1070			
Sports and Dramatics	Between Groups	11.341	5	2.268	0.207	0.959
	Within Groups	11650.6	1065	10.94		
	Total	11662	1070			
General Interests	Between Groups	54.233	5	10.847	1.327	0.250
	Within Groups	8702.47	1065	8.171		
	Total	8756.71	1070			
Achievement Motivation Total	Between Groups	1090.17	5	218.034	0.972	0.434
	Within Groups	238906	1065	224.325		
	Total	239997	1070			

From the above table, it is clear that the F values for work methods, academic challenge, sports and dramatics dimensions and the total score of achievement motivation of secondary school students are 0.989, 0.378, 0.207 and 0.972 respectively at (1065, 5) df which are not found to be significant even at the 0.05 level of confidence. The table also shows that the F values for attitude towards education and teachers, and general interests dimensions of achievement motivation of secondary school students are 1.084 and 1.327 respectively at (5, 1065) df which

are not found to be significant even at the 0.05 level of confidence. Hence, the null hypothesis, “There is no significant difference in the achievement motivation of secondary school students w.r.t to family size” is not rejected. Meaning thereby, family size does not influence the achievement motivation of students.

DISCUSSION ON RESULTS

From the results of the study, it is found that students from Malwa and Doaba region are having better attitude towards academics than students from Majha region. However, students from Majha and Malwa region have better viewpoint about life, and perception about using the leisure time constructively than students from Doaba region. The findings of the study revealed that family size does not influence the achievement motivation of students. This finding is supported by Ogwa (2018) who found that family size has no influence on the academic achievement motivation of senior secondary students. Similarly, Arulmoly and Elankumaran (2015) found no significant relationship between family size and academic achievement motivation of senior secondary students.

4.10 SUMMARY OF t-TEST FOR TYPE OF SCHOOL, SCHOOL BOARD, TYPE OF FAMILY, GENDER, SCHOOL SIZE AND LOCALE ON THE SCORES OF DIFFERENT DIMENSIONS OF LEADERSHIP DEVELOPMENT OF SECONDARY SCHOOL STUDENTS

For finding out significant differences due to type of school, school board, type of family, gender, school size and locale on the scores of different dimensions of leadership development of secondary school students, t-test has been applied by considering the following hypothesis:

Hypothesis 4 d- There is no significant difference in the leadership development w.r.t (i) type of school; (ii) school board; (iii) type of family; (iv) gender; (v) school size; (vi) locale of secondary school students.

The Table 4.26 shows N, Mean, Std. deviation for type of school, school board, type of family, gender, school size and locale and dimensions of leadership development of secondary school students i.e. consciousness of self, congruence, commitment, common purpose, collaboration, controversy with civility, citizenship and change.

TABLE 4.26: SUMMARY OF N, MEAN AND STD. DEVIATION DIFFERENTIALS ON THE SCORES OF DIFFERENT DIMENSIONS OF LEADERSHIP DEVELOPMENT OF SECONDARY SCHOOL STUDENTS FOR TYPE OF SCHOOL, SCHOOL BOARD, TYPE OF FAMILY, GENDER, SCHOOL SIZE AND LOCALE

Leadership Development	Variable	N	Mean	Std. Deviation
Type of School				
Consciousness of Self	Government	532	35.61	4.100
	Private	539	36.22	4.141
Congruence	Government	532	29.95	3.245
	Private	539	29.99	3.620
Commitment	Government	532	26.14	2.765
	Private	539	26.36	2.884
Common Purpose	Government	532	38.02	3.904
	Private	539	38.02	4.321
Collaboration	Government	532	34.28	3.446
	Private	539	33.84	3.970
Controversy with Civility	Government	532	39.47	4.495
	Private	539	39.10	4.485
Citizenship	Government	532	33.88	3.960
	Private	539	33.85	4.457
Change	Government	532	38.97	4.050
	Private	539	39.04	4.181
School Board				
Consciousness of Self	PSEB	532	36.42	3.985
	CBSE	539	35.42	4.212
Congruence	PSEB	532	30.62	3.323
	CBSE	539	29.33	3.429
Commitment	PSEB	532	26.79	2.792
	CBSE	539	25.72	2.760
Common Purpose	PSEB	532	38.52	4.349
	CBSE	539	37.53	3.815
Collaboration	PSEB	532	34.92	3.797
	CBSE	539	33.21	3.451
Controversy with Civility	PSEB	532	40.91	4.109
	CBSE	539	37.68	4.274
Citizenship	PSEB	532	34.51	4.322
	CBSE	539	33.23	4.011

Contd.

Leadership Development	Variable	N	Mean	Std. Deviation
Change	PSEB	532	39.00	4.264
	CBSE	539	39.01	3.966
Type of Family				
Consciousness of Self	Nuclear	661	35.62	4.257
	Joint	410	36.39	3.876
Congruence	Nuclear	661	29.87	3.494
	Joint	410	30.13	3.341
Commitment	Nuclear	661	26.08	2.879
	Joint	410	26.52	2.721
Common Purpose	Nuclear	661	37.84	4.234
	Joint	410	38.32	3.910
Collaboration	Nuclear	661	33.89	3.795
	Joint	410	34.34	3.593
Controversy with Civility	Nuclear	661	39.19	4.579
	Joint	410	39.43	4.349
Citizenship	Nuclear	661	33.69	4.303
	Joint	410	34.13	4.061
Change	Nuclear	661	38.99	4.137
	Joint	410	39.02	4.083
Gender				
Consciousness of Self	Female	621	36.32	3.874
	Male	450	35.36	4.402
Congruence	Female	621	30.27	3.236
	Male	450	29.55	3.660
Commitment	Female	621	26.54	2.679
	Male	450	25.86	2.976
Common Purpose	Female	621	38.36	3.839
	Male	450	37.56	4.435
Collaboration	Female	621	34.54	3.458
	Male	450	33.40	3.973
Controversy with Civility	Female	621	39.40	4.371
	Male	450	39.12	4.654
Citizenship	Female	621	34.26	4.012
	Male	450	33.31	4.427
Change	Female	621	39.27	3.974
	Male	450	38.64	4.279

Contd.

Leadership Development	Variable	N	Mean	Std. Deviation
School Size				
Consciousness of Self	Large	591	35.90	4.150
	Small	480	35.94	4.108
Congruence	Large	591	29.56	3.367
	Small	480	30.48	3.459
Commitment	Large	591	25.97	2.758
	Small	480	26.60	2.873
Common Purpose	Large	591	37.95	3.895
	Small	480	38.12	4.378
Collaboration	Large	591	33.61	3.620
	Small	480	34.62	3.778
Controversy with Civility	Large	591	38.54	4.721
	Small	480	40.20	4.010
Citizenship	Large	591	33.61	4.044
	Small	480	34.17	4.402
Change	Large	591	39.15	4.051
	Small	480	38.83	4.190
Locale				
Consciousness of Self	Urban	772	35.85	4.177
	Rural	299	36.08	4.007
Congruence	Urban	772	29.75	3.485
	Rural	299	30.55	3.244
Commitment	Urban	772	26.13	2.825
	Rural	299	26.56	2.812
Common Purpose	Urban	772	37.86	4.192
	Rural	299	38.44	3.894
Collaboration	Urban	772	33.80	3.754
	Rural	299	34.74	3.563
Controversy with Civility	Urban	772	38.93	4.432
	Rural	299	40.20	4.523
Citizenship	Urban	772	33.52	4.331
	Rural	299	34.76	3.762
Change	Urban	772	38.99	4.187
	Rural	299	39.03	3.928

The results of t-test for the significant difference in the scores of different dimensions of leadership development of secondary school students due to type of school, school board, type of family, gender, school size and locale are presented in Table 4.27.

TABLE 4.27: SUMMARY OF t-TEST FOR TYPE OF SCHOOL, SCHOOL BOARD, TYPE OF FAMILY, GENDER, SCHOOL SIZE AND LOCALE ON THE SCORES OF DIFFERENT DIMENSIONS OF LEADERSHIP DEVELOPMENT OF SECONDARY SCHOOL STUDENTS

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Type of School								
Consciousness of Self	Equal variances assumed	0.03	0.87	2.41	1069	0.02*	0.61	0.25
Congruence	Equal variances not assumed	6.21	0.01	0.22	1059	0.82	0.05	0.21
Commitment	Equal variances not assumed	3.96	0.047	1.28	1068	0.20	0.22	0.17
Common Purpose	Equal variances not assumed	5.60	0.02	0.01	1061	0.99	0.00	0.25
Collaboration	Equal variances not assumed	8.72	0.00	1.95	1052	0.05*	0.44	0.23
Controversy with Civility	Equal variances assumed	0.06	0.80	1.37	1069	0.17	0.38	0.27
Citizenship	Equal variances not assumed	3.97	0.047	0.12	1057	0.91	0.03	0.26
Change	Equal variances assumed	0.47	0.49	0.24	1069	0.81	0.06	0.25

Contd.

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
School Board								
Consciousness of Self	Equal variances assumed	1.99	0.16	4.00	1069	0.00**	1.00	0.25
Congruence	Equal variances assumed	0.03	0.87	6.29	1069	0.00**	1.30	0.21
Commitment	Equal variances assumed	0.00	0.94	6.34	1069	0.00**	1.08	0.17
Common Purpose	Equal variances not assumed	10.14	0.00	3.97	1047	0.00**	0.99	0.25
Collaboration	Equal variances assumed	3.35	0.07	7.70	1069	0.00**	1.71	0.22
Controversy with Civility	Equal variances assumed	1.18	0.28	12.62	1069	0.00**	3.23	0.26
Citizenship	Equal variances assumed	2.28	0.13	5.01	1069	0.00**	1.28	0.25
Change	Equal variances assumed	1.07	0.30	0.02	1069	0.98	0.01	0.25
Type of Family								
Consciousness of Self	Equal variances not assumed	4.75	0.03	3.01	928	0.00**	0.76	0.25
Congruence	Equal variances assumed	0.03	0.87	1.19	1069	0.24	0.26	0.22
Commitment	Equal variances assumed	0.10	0.76	2.47	1069	0.01**	0.44	0.18
Common Purpose	Equal variances assumed	0.20	0.65	1.85	1069	0.07	0.48	0.26

Contd.

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Collaboration	Equal variances assumed	0.32	0.57	1.95	1069	0.05*	0.45	0.23
Controversy with Civility	Equal variances assumed	2.43	0.12	0.86	1069	0.39	0.24	0.28
Citizenship	Equal variances assumed	1.59	0.21	1.66	1069	0.10	0.44	0.26
Change	Equal variances assumed	0.78	0.38	0.12	1069	0.90	0.03	0.26
Gender								
Consciousness of Self	Equal variances not assumed	9.52	0.00	3.73	891	0.00**	0.97	0.26
Congruence	Equal variances not assumed	9.73	0.00	3.34	894	0.00**	0.72	0.22
Commitment	Equal variances not assumed	5.64	0.02	3.83	905	0.00**	0.68	0.18
Common Purpose	Equal variances not assumed	7.30	0.01	3.09	881	0.00**	0.80	0.26
Collaboration	Equal variances not assumed	5.22	0.02	4.91	884	0.00**	1.14	0.23
Controversy with Civility	Equal variances assumed	1.09	0.30	0.99	1069	0.32	0.28	0.28
Citizenship	Equal variances assumed	1.88	0.17	3.67	1069	0.00**	0.95	0.26
Change	Equal variances assumed	3.16	0.08	2.49	1069	0.01**	0.63	0.25

Contd.

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2- tailed)	Mean Difference	Std. Error Difference
School Size								
Consciousness of Self	Equal variances assumed	0.19	0.66	0.18	1069	0.85	0.05	0.25
Congruence	Equal variances assumed	1.23	0.27	4.38	1069	0.00**	0.92	0.21
Commitment	Equal variances assumed	1.68	0.20	3.67	1069	0.00**	0.63	0.17
Common Purpose	Equal variances not assumed	10.83	0.00	0.67	968	0.50	0.17	0.26
Collaboration	Equal variances assumed	0.60	0.44	4.44	1069	0.00**	1.01	0.23
Controversy with Civility	Equal variances not assumed	11.75	0.00	6.24	1067	0.00**	1.67	0.27
Citizenship	Equal variances assumed	3.19	0.07	2.17	1069	0.03*	0.56	0.26
Change	Equal variances assumed	0.18	0.67	1.26	1069	0.21	0.32	0.25
Locale								
Consciousness of Self	Equal variances assumed	1.34	0.25	0.79	1069	0.43	0.22	0.28
Congruence	Equal variances assumed	0.62	0.43	3.46	1069	0.00**	0.81	0.23
Commitment	Equal variances assumed	0.01	0.94	2.19	1069	0.03*	0.42	0.19
Common Purpose	Equal variances assumed	1.73	0.19	2.06	1069	0.04*	0.58	0.28

Contd.

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Collaboration	Equal variances assumed	0.19	0.66	3.71	1069	0.00**	0.94	0.25
Controversy with Civility	Equal variances assumed	0.45	0.50	4.17	1069	0.00**	1.27	0.30
Citizenship	Equal variances not assumed	5.52	0.02	4.63	619	0.00**	1.24	0.27
Change	Equal variances assumed	0.57	0.45	0.14	1069	0.89	0.04	0.28
** Significant at 0.01 level of confidence								
* Significant at 0.05 level of confidence								

The Table 4.27 shows type of school wise differences on the scores of different dimensions of leadership development of secondary school students. It is clear from the table that t values for consciousness of self and collaboration are 2.41 and 1.95 respectively which are found to be significant at the 0.05 level of confidence. However, it is not found to be significant at 0.05 level of confidence for congruence, commitment, common purpose, controversy with civility, citizenship and change dimensions of leadership development. Hence, the null hypothesis, "There is no significant difference in the leadership development w.r.t type of school of secondary school students" is rejected for consciousness of self and collaboration dimensions of leadership development. From the mean scores, it is found that students studying in private schools have scored more on consciousness of self than students studying in government schools. Meaning thereby, private school students are more self-aware of their beliefs, values, attitudes and emotions that motivate them to take action than government school students. However, government school students have scored more on collaboration than private school students. Meaning thereby, government school students are more proficient in working with others in a common effort, sharing responsibility, authority and accountability than private school students.

From the table, school board wise differences on the scores of different dimensions of leadership development of secondary school students show that t values for consciousness of self, congruence, commitment, common purpose, collaboration, controversy with civility and citizenship are 4.00, 6.29, 6.34, 3.97, 7.70, 12.62 and 5.01 respectively which are found to be significant at the 0.01 level of confidence. However, it is not found to be significant at 0.05 level of confidence for change dimension of leadership development. Hence, the null hypothesis, “There is no significant difference in the leadership development w.r.t school board of secondary school students” is rejected for consciousness of self, congruence, commitment, common purpose, collaboration, controversy with civility and citizenship dimensions of leadership development. From the mean scores, it is found that PSEB board students have scored more on consciousness of self, congruence, commitment, common purpose, collaboration, controversy with civility and citizenship than CBSE board students. Meaning thereby, PSEB board students are more self-aware of their beliefs, values, attitudes and emotions that motivate them to take action; act more in ways that are consistent with their values and beliefs and they think, feel and behave with consistency, genuineness, authenticity and honesty towards others; are having more energy to serve the group and its goals, and can invest significantly in terms of intensity and duration in an idea or person; have exhibited highly on shared aims and values, and work for building groups’ vision; are more proficient in working with others in a common effort, sharing responsibility, authority and accountability; have recognized the fundamental realities of creative effort (a. differences in viewpoint & b. differences must be aired openly with civility) more; and are better at recognizing that members of communities are interdependent and not independent than CBSE board students.

From the table, type of family wise differences on the scores of different dimensions of leadership development of secondary school students show that t values for consciousness of self, commitment and collaboration are 3.01, 2.47 and 1.95 which are found to be significant either at the 0.01 or 0.05 level of confidence. However, it is not found to be significant at 0.05 level of confidence for congruence, common purpose, controversy with civility, citizenship and change dimensions of leadership development. Hence, the null hypothesis, “There is no significant

difference in the leadership development w.r.t type of family of secondary school students” is rejected for consciousness of self, commitment and collaboration dimensions of leadership development. From the mean scores, it is found that students belonging to joint families have scored more on consciousness of self, commitment and collaboration than students belonging to nuclear families. Meaning thereby, students from joint families are more self-aware of their beliefs, values, attitudes and emotions that motivate them to take action; are having more energy to serve the group and its goals, and can invest significantly in terms of intensity and duration in an idea or person; and are more proficient in working with others in a common effort, sharing responsibility, authority and accountability than students from nuclear families.

The table presents the gender wise differences on the scores of different dimensions of leadership development of secondary school students. It is clear from the table that t values for consciousness of self, congruence, commitment, common purpose, collaboration, citizenship and change are 3.73, 3.34, 3.83, 3.09, 4.91, 3.67 and 2.49 respectively which are found to be significant at the 0.01 level of confidence. However, it is not found to be significant at 0.05 level of confidence for controversy with civility dimension of leadership development. Hence, the null hypothesis, “There is no significant difference in the leadership development w.r.t gender of secondary school students” is rejected for consciousness of self, congruence, commitment, common purpose, collaboration, citizenship and change dimensions of leadership development. From the mean scores, it is found that female students have scored more on consciousness of self, congruence, commitment, common purpose, collaboration, citizenship and change than male students. Meaning thereby, female students are more self-aware of their beliefs, values, attitudes and emotions that motivate them to take action; act more in ways that are consistent with their values and beliefs and they think, feel and behave with consistency, genuineness, authenticity and honesty towards others; are having more energy to serve the group and its goals, and can invest significantly in terms of intensity and duration in an idea or person; have exhibited highly on shared aims and values, and work for building groups’ vision; are more proficient in working with others in a common effort, sharing responsibility, authority and accountability; are

better at recognizing that members of communities are interdependent and not independent; and have exhibited better understanding of the importance of making the world and society a better place for oneself and others than male students.

The table presents the school size wise differences on the scores of different dimensions of leadership development of secondary school students which show that t values for congruence, commitment, collaboration, controversy with civility and citizenship are 4.38, 3.67, 4.44, 6.24 and 2.17 respectively which are found to be significant either at the 0.01 or 0.05 level of confidence. However, it is not found to be significant at 0.05 level of confidence for consciousness of self, common purpose and change dimensions of leadership development. Hence, the null hypothesis, “There is no significant difference in the leadership development w.r.t school size of secondary school students” is rejected for congruence, commitment, collaboration, controversy with civility and citizenship dimensions of leadership development. From the mean scores, it is found that small school students have scored more on congruence, commitment, collaboration, controversy with civility and citizenship than large school students. Meaning thereby, small school students act more in ways that are consistent with their values and beliefs and they think, feel and behave with consistency, genuineness, authenticity and honesty towards others; are having more energy to serve the group and its goals, and can invest significantly in terms of intensity and duration in an idea or person; are more proficient in working with others in a common effort, sharing responsibility, authority and accountability; have recognized the fundamental realities of creative effort (a. differences in viewpoint & b. differences must be aired openly with civility) more; and are better at recognizing that members of communities are interdependent and not independent than large school students.

The table presents the locale wise differences on the scores of different dimensions of leadership development of secondary school students which show that t values for congruence, commitment, common purpose, collaboration, controversy with civility and citizenship are 3.46, 2.19, 2.06, 3.71, 4.17 and 4.63 respectively which are found to be significant either at the 0.01 or 0.05 level of confidence. However, it is not found to be significant at 0.05 level of confidence for consciousness of self and change dimensions of leadership development. Hence, the

null hypothesis, “There is no significant difference in the leadership development w.r.t locale of secondary school students” is rejected for congruence, commitment, common purpose, collaboration, controversy with civility and citizenship dimensions of leadership development. From the mean scores, it is found that rural area students have scored more on congruence, commitment, common purpose, collaboration, controversy with civility and citizenship than urban area students. Meaning thereby, rural area students act more in ways that are consistent with their values and beliefs and they think, feel and behave with consistency, genuineness, authenticity and honesty towards others; are having more energy to serve the group and its goals, and can invest significantly in terms of intensity and duration in an idea or person; have exhibited highly on shared aims and values, and work for building groups’ vision; are more proficient in working with others in a common effort, sharing responsibility, authority and accountability; have recognized the fundamental realities of creative effort (a. differences in viewpoint & b. differences must be aired openly with civility) more; and are better at recognizing that members of communities are interdependent and not independent than urban area students.

DISCUSSION ON RESULTS

From the results of the study, it is found that private school students are more self-aware of their beliefs, values, attitudes and emotions that motivate them to take action than government school students. However, government school students are more proficient in working with others in a common effort, sharing responsibility, authority and accountability than private school students. The findings revealed that PSEB board students are more self-aware of their beliefs, values, attitudes and emotions that motivate them to take action; act more in ways that are consistent with their values and beliefs and they think, feel and behave with consistency, genuineness, authenticity and honesty towards others; are having more energy to serve the group and its goals, and can invest significantly in terms of intensity and duration in an idea or person; have exhibited highly on shared aims and values, and work for building groups’ vision; are more proficient in working with others in a common effort, sharing responsibility, authority and accountability; have recognized the fundamental realities of creative effort (a. differences in viewpoint & b. differences must be aired openly with civility) more; and are better at recognizing

that members of communities are interdependent and not independent than CBSE board students. It is shown from the results that students from joint families are more self-aware of their beliefs, values, attitudes and emotions that motivate them to take action; are having more energy to serve the group and its goals, and can invest significantly in terms of intensity and duration in an idea or person; and are more proficient in working with others in a common effort, sharing responsibility, authority and accountability than students from nuclear families. It is found that female students are more self-aware of their beliefs, values, attitudes and emotions that motivate them to take action; act more in ways that are consistent with their values and beliefs and they think, feel and behave with consistency, genuineness, authenticity and honesty towards others; are having more energy to serve the group and its goals, and can invest significantly in terms of intensity and duration in an idea or person; have exhibited highly on shared aims and values, and work for building groups' vision; are more proficient in working with others in a common effort, sharing responsibility, authority and accountability; are better at recognizing that members of communities are interdependent and not independent; and have exhibited better understanding of the importance of making the world and society a better place for oneself and others than male students. This finding is supported by McKinley et al. (1993) who concluded that female students have better interpersonal relations skills than male students and Duncan (2000) who found that female students have rated themselves as receiving higher leadership life skills gain than males. Similarly, Gordon (1994) concluded that gender of students have a significant influence on leadership factors. It is shown that small school students act more in ways that are consistent with their values and beliefs and they think, feel and behave with consistency, genuineness, authenticity and honesty towards others; are having more energy to serve the group and its goals, and can invest significantly in terms of intensity and duration in an idea or person; are more proficient in working with others in a common effort, sharing responsibility, authority and accountability; have recognized the fundamental realities of creative effort (a. differences in viewpoint & b. differences must be aired openly with civility) more; and are better at recognizing that members of communities are interdependent and not independent than large school students. The findings of the study revealed that

rural area students act more in ways that are consistent with their values and beliefs and they think, feel and behave with consistency, genuineness, authenticity and honesty towards others; are having more energy to serve the group and its goals, and can invest significantly in terms of intensity and duration in an idea or person; have exhibited highly on shared aims and values, and work for building groups' vision; are more proficient in working with others in a common effort, sharing responsibility, authority and accountability; have recognized the fundamental realities of creative effort (a. differences in viewpoint & b. differences must be aired openly with civility) more; and are better at recognizing that members of communities are interdependent and not independent than urban area students. On the contrary, Gordon (1994) concluded that residence has no influence on the perceived leadership abilities of students. Duncan (2000) also found no significant relationship between place of residence and youth leadership life skills development.

4.11 SUMMARY OF ONE WAY ANOVA ON THE SCORES OF LEADERSHIP DEVELOPMENT OF SECONDARY SCHOOL STUDENTS

For finding out significant differences due to region and family size on the scores of different dimensions of leadership development of secondary school students, One Way ANOVA has been applied and the results are presented below.

4.11.1 SUMMARY OF ONE WAY ANOVA FOR REGION ON THE SCORES OF DIFFERENT DIMENSIONS OF LEADERSHIP DEVELOPMENT OF SECONDARY SCHOOL STUDENTS

The results of One Way ANOVA are presented by considering the following hypothesis:

Hypothesis 4 e- There is no significant difference in the leadership development of secondary school students w.r.t to region.

The Table 4.28 shows N, Mean, Std. deviation for various sub groups on the scores of different dimensions of leadership development of secondary school students w.r.t region.

TABLE 4.28: SUMMARY OF N, MEAN AND STD. DEVIATION ON THE SCORES OF DIFFERENT DIMENSIONS OF LEADERSHIP DEVELOPMENT WITH RESPECT TO REGION

Leadership Development	Variable	N	Mean	Std. Deviation
Consciousness of Self	Majha	360	35.98	4.171
	Malwa	351	36.16	3.815
	Doaba	360	35.62	4.369
	Total	1071	35.92	4.13
Congruence	Majha	360	30.31	3.367
	Malwa	351	30.17	3.509
	Doaba	360	29.44	3.381
	Total	1071	29.97	3.437
Commitment	Majha	360	26.24	2.81
	Malwa	351	26.53	2.796
	Doaba	360	25.99	2.854
	Total	1071	26.25	2.826
Common Purpose	Majha	360	38.63	3.757
	Malwa	351	37.69	4.633
	Doaba	360	37.74	3.865
	Total	1071	38.02	4.117
Collaboration	Majha	360	34.39	3.437
	Malwa	351	33.99	4.128
	Doaba	360	33.8	3.567
	Total	1071	34.06	3.724
Controversy with Civility	Majha	360	40.52	4.59
	Malwa	351	39.01	4.455
	Doaba	360	38.32	4.146
	Total	1071	39.28	4.492
Citizenship	Majha	360	34.46	4.081
	Malwa	351	33.94	4.611
	Doaba	360	33.19	3.842
	Total	1071	33.86	4.215
Change	Majha	360	39.39	3.949
	Malwa	351	39.01	4.326
	Doaba	360	38.62	4.041
	Total	1071	39	4.115

The Table 4.29 shows the One Way ANOVA results for significant difference due to region on the scores of different dimensions of leadership development of secondary school students.

TABLE 4.29: SUMMARY OF ONE WAY ANOVA ON THE SCORES OF DIFFERENT DIMENSIONS OF LEADERSHIP DEVELOPMENT W.R.T REGION

Leadership Development	Source	Sum of Squares	Df	Mean Square	F	Sig.
Consciousness of Self	Between Groups	54.091	2	27.046	1.588	0.21
	Within Groups	18194.346	1068	17.036		
	Total	18248.437	1070			
Congruence	Between Groups	156.659	2	78.33	6.700	0.00**
	Within Groups	12485.443	1068	11.69		
	Total	12642.103	1070			
Commitment	Between Groups	52.629	2	26.314	3.309	0.04*
	Within Groups	8493.304	1068	7.953		
	Total	8545.933	1070			
Common Purpose	Between Groups	199.115	2	99.558	5.927	0.00**
	Within Groups	17940.347	1068	16.798		
	Total	18139.462	1070			
Collaboration	Between Groups	66.109	2	33.054	2.390	0.09
	Within Groups	14772.947	1068	13.832		
	Total	14839.055	1070			
Controversy with Civility	Between Groups	911.04	2	455.52	23.526	0.00**
	Within Groups	20679.102	1068	19.362		
	Total	21590.142	1070			
Citizenship	Between Groups	290.899	2	145.45	8.297	0.00**
	Within Groups	18721.924	1068	17.53		
	Total	19012.824	1070			
Change	Between Groups	106.592	2	53.296	3.160	0.04*
	Within Groups	18010.385	1068	16.864		
	Total	18116.977	1070			
** Significant at 0.01 level of confidence						
* Significant at 0.05 level of confidence						

From the Table 4.29, it is clear that the F values for congruence, commitment, common purpose, controversy with civility, citizenship and change dimensions of leadership development are 6.700, 3.309, 5.927, 23.526, 8.297 and 3.160 respectively at (2, 1068) df which are found to be significant either at 0.01 or 0.05 level of confidence except consciousness of self and collaboration dimensions of leadership development. Hence, the null hypothesis, “There is no significant difference in the leadership development of secondary school students w.r.t region” is rejected except consciousness of self and collaboration dimensions of leadership development.

In order to find significant difference between sub groups of Majha, Malwa and Doaba for congruence, commitment, common purpose, controversy with civility, citizenship and change dimensions of leadership development, Scheffe test has been used and the results are presented in Table 4.30.

TABLE 4.30: SUMMARY OF SCHEFFE POST HOC TEST ON THE SCORES OF LEADERSHIP DEVELOPMENT DUE TO REGION

Leadership Development	Region		Mean Difference (I-J)	Std. Error	Sig.
Congruence	Majha (30.31)	Malwa (30.17)	0.13	0.26	0.88
	Majha (30.31)	Doaba (29.44)	0.87**	0.26	0.00
	Malwa (30.17)	Doaba (29.44)	0.74*	0.26	0.02
Commitment	Majha (26.24)	Malwa (26.53)	0.29	0.21	0.39
	Majha (26.24)	Doaba (25.99)	0.25	0.21	0.49
	Malwa (26.53)	Doaba (25.99)	0.54*	0.21	0.04
Common Purpose	Majha (38.63)	Malwa (37.69)	0.94**	0.31	0.01
	Majha (38.63)	Doaba (37.74)	0.89*	0.31	0.02
	Malwa (37.69)	Doaba (37.74)	0.05	0.31	0.99
Controversy With Civility	Majha (40.52)	Malwa (39.01)	1.51**	0.33	0.00
	Majha (40.52)	Doaba (38.32)	2.20**	0.33	0.00
	Malwa (39.01)	Doaba (38.32)	0.69	0.33	0.11

Contd.

Leadership Development	Region		Mean Difference (I-J)	Std. Error	Sig.
Citizenship	Majha (34.46)	Malwa (33.94)	0.51	0.31	0.26
	Majha (34.46)	Doaba (33.19)	1.26**	0.31	0.00
	Malwa (33.94)	Doaba (33.19)	0.75	0.31	0.06
Change	Majha (39.39)	Malwa (39.01)	0.38	0.31	0.48
	Majha (39.39)	Doaba (38.62)	0.77*	0.31	0.04
	Malwa (39.01)	Doaba (38.62)	0.40	0.31	0.44
** The mean difference is significant at the 0.01 level.					
* The mean difference is significant at the 0.05 level.					

From the Table 4.30, it is clear that pair of sub groups of Majha-Doaba on the scores of congruence, common purpose, controversy with civility, citizenship and change dimensions of leadership development of secondary school students is found to be significant either at 0.01 or 0.05 level of confidence. From mean analysis, it is found that students from Majha region have scored more on congruence, common purpose, controversy with civility, citizenship and change than students from Doaba region. Meaning thereby, students from Majha region act more in ways that are consistent with their values and beliefs, and they think, feel and behave with consistency, genuineness, authenticity and honesty towards others; have exhibited highly on shared aims and values, and work for building groups' vision; have recognized the fundamental realities of creative effort (a. differences in viewpoint & b. differences must be aired openly with civility) more; are better at recognizing that members of communities are interdependent and not independent; and have exhibited better understanding of the importance of making the world and society a better place for oneself and others than students from Doaba region.

From the table, it is clear that pair of sub groups of Majha-Malwa on the scores of common purpose and controversy with civility dimensions of leadership development of secondary school students is found to be significant at 0.01 level of confidence. From mean analysis, it is found that students from Majha region have

scored more on common purpose and controversy with civility than students from Malwa region. Meaning thereby, students from Majha region have exhibited highly on shared aims and values, and work for building groups' vision; and have recognized the fundamental realities of creative effort (a. differences in viewpoint & b. differences must be aired openly with civility) more than students from Malwa region.

From the table, it is clear that pair of sub groups of Malwa-Doaba on the scores of congruence and commitment dimensions of leadership development of secondary school students is found to be significant at 0.05 level of confidence. From mean analysis, it is found that students from Malwa region have scored more on congruence and commitment than students from Doaba region. Meaning thereby, students from Malwa region act more in ways that are consistent with their values and beliefs, and they think, feel and behave with consistency, genuineness, authenticity and honesty towards others; and are having more energy to serve the group and its goals, and can invest significantly in terms of intensity and duration in an idea or person than students from Doaba region.

4.11.2 SUMMARY OF ONE WAY ANOVA FOR FAMILY SIZE ON THE SCORES OF DIFFERENT DIMENSIONS OF LEADERSHIP DEVELOPMENT OF SECONDARY SCHOOL STUDENTS

The results of One Way ANOVA are presented by considering the following hypothesis:

Hypothesis 4 f- There is no significant difference in the leadership development of secondary school students w.r.t to family size.

The Table 4.31 shows N, Mean, Std. deviation for various sub groups on the scores of different dimensions of leadership development of secondary school students w.r.t family size.

TABLE 4.31: SUMMARY OF N, MEAN AND STD. DEVIATION ON THE SCORES OF DIFFERENT DIMENSIONS OF LEADERSHIP DEVELOPMENT WITH RESPECT TO FAMILY SIZE

Leadership Development	Variable	N	Mean	Std. Deviation
Consciousness of Self	3	39	36.05	4.039
	4	342	35.43	4.411
	5	288	36.29	3.796
	6	179	35.67	4.057
	7	70	36.01	4.272
	8	153	36.51	4.039
	Total	1071	35.92	4.13
Congruence	3	39	29.03	4.055
	4	342	30	3.536
	5	288	30.07	3.351
	6	179	29.57	3.426
	7	70	30.34	3.175
	8	153	30.27	3.301
	Total	1071	29.97	3.437
Commitment	3	39	26.44	2.125
	4	342	26.03	2.914
	5	288	26.32	2.836
	6	179	26.12	2.882
	7	70	26.44	2.937
	8	153	26.63	2.628
	Total	1071	26.25	2.826
Common Purpose	3	39	37.33	3.255
	4	342	37.88	4.27
	5	288	38.03	4.16
	6	179	37.69	3.929
	7	70	38.51	3.963
	8	153	38.65	4.136
	Total	1071	38.02	4.117

Contd.

Leadership Development	Variable	N	Mean	Std. Deviation
Collaboration	3	39	32.82	3.831
	4	342	33.89	3.823
	5	288	34.11	3.653
	6	179	34.15	3.657
	7	70	34.73	3.336
	8	153	34.27	3.813
	Total	1071	34.06	3.724
Controversy with Civility	3	39	39.69	4.143
	4	342	39.06	4.36
	5	288	38.99	4.36
	6	179	39.23	4.813
	7	70	41.34	4.201
	8	153	39.36	4.666
	Total	1071	39.28	4.492
Citizenship	3	39	33.18	3.663
	4	342	33.64	4.191
	5	288	33.86	4.418
	6	179	33.85	4.194
	7	70	34.7	3.601
	8	153	34.17	4.282
	Total	1071	33.86	4.215
Change	3	39	38.38	4.259
	4	342	38.9	3.755
	5	288	39.22	4.363
	6	179	38.72	4.495
	7	70	38.97	3.659
	8	153	39.36	4.113
	Total	1071	39	4.115

The Table 4.32 shows the One Way ANOVA results for significant difference due to family size on the scores of different dimensions of leadership development of secondary school students.

TABLE 4.32: SUMMARY OF ONE WAY ANOVA ON THE SCORES OF DIFFERENT DIMENSIONS OF LEADERSHIP DEVELOPMENT W.R.T FAMILY SIZE

Leadership Development	Source	Sum of Squares	Df	Mean Square	F	Sig.
Consciousness of Self	Between Groups	188.593	5	37.719	2.224	0.05*
	Within Groups	18059.844	1065	16.958		
	Total	18248.437	1070			
Congruence	Between Groups	89.859	5	17.972	1.525	0.18
	Within Groups	12552.244	1065	11.786		
	Total	12642.103	1070			
Commitment	Between Groups	47.417	5	9.483	1.188	0.31
	Within Groups	8498.516	1065	7.98		
	Total	8545.933	1070			
Common Purpose	Between Groups	122.831	5	24.566	1.452	0.20
	Within Groups	18016.631	1065	16.917		
	Total	18139.462	1070			
Collaboration	Between Groups	110.559	5	22.112	1.599	0.16
	Within Groups	14728.496	1065	13.83		
	Total	14839.055	1070			
Controversy with Civility	Between Groups	347.034	5	69.407	3.480	0.00**
	Within Groups	21243.108	1065	19.947		
	Total	21590.142	1070			
Citizenship	Between Groups	98.648	5	19.73	1.111	0.35
	Within Groups	18914.175	1065	17.76		
	Total	19012.824	1070			
Change	Between Groups	66.034	5	13.207	0.779	0.57
	Within Groups	18050.943	1065	16.949		
	Total	18116.977	1070			
** Significant at 0.01 level of confidence						
* Significant at 0.05 level of confidence						

The table shows that the F values for congruence, commitment, common purpose, collaboration, citizenship dimensions of leadership development are found to be 1.525, 1.188, 1.452, 1.599 and 1.111 at (5, 1065) df respectively and the F

value for change dimension of leadership development is found to be 0.779 at (1065, 5) df which are not found to be significant even at the 0.05 level of confidence. However, the F values for consciousness of self and controversy with civility dimensions of leadership development are found to be 2.224 and 3.480 at (5, 1065) df which are found to be significant either at 0.01 or 0.05 level of confidence. Hence, the null hypothesis, “There is no significant difference in the leadership development of secondary school students w.r.t to family size” is rejected for consciousness of self and controversy with civility dimensions of leadership development.

In order to find significant difference between sub groups of different family sizes for consciousness of self and controversy with civility dimensions of leadership development, Scheffe test has been used and the results are presented in Table 4.33.

TABLE 4.33: SUMMARY OF SCHEFFE POST HOC TEST ON THE SCORES OF LEADERSHIP DEVELOPMENT DUE TO FAMILY SIZE

Leadership Development	Family Size		Mean Difference (I-J)	Std. Error	Sig.
Consciousness of Self	3	4	0.62	0.70	0.98
	3	5	0.24	0.70	1.00
	3	6	0.38	0.73	1.00
	3	7	0.04	0.82	1.00
	3	8	0.46	0.74	1.00
	4	5	0.87	0.33	0.23
	4	6	0.24	0.38	1.00
	4	7	0.59	0.54	0.95
	4	8	1.08	0.40	0.20
	5	6	0.62	0.39	0.78
	5	7	0.28	0.55	1.00
	5	8	0.22	0.41	1.00
	6	7	0.34	0.58	1.00
	6	8	0.84	0.45	0.63
	7	8	0.50	0.59	0.98

Contd.

Leadership Development	Family Size		Mean Difference (I-J)	Std. Error	Sig.
Controversy With Civility	3	4	0.63	0.76	0.98
	3	5	0.71	0.76	0.97
	3	6	0.46	0.79	1.00
	3	7	1.65	0.89	0.64
	3	8	0.33	0.80	1.00
	4	5	0.08	0.36	1.00
	4	6	0.17	0.41	1.00
	4	7	2.28**	0.59	0.01
	4	8	0.30	0.43	0.99
	5	6	0.25	0.43	1.00
	5	7	2.36**	0.60	0.01
	5	8	0.37	0.45	0.98
	6	7	2.11*	0.63	0.05
	6	8	0.13	0.49	1.00
	7	8	1.98	0.64	0.09
	** The mean difference is significant at the 0.01 level.				
* The mean difference is significant at the 0.05 level.					

The Table 4.33 shows that pairs of sub groups of 4-7, 5-7 and 6-7 on the scores of controversy with civility dimension of leadership development of secondary school students are found to be significant either at 0.01 or 0.05 level of confidence. From mean analysis, it is found that students belonging to the family size of 7 (41.34) have scored more on controversy with civility than students belonging to the family size of 4 (39.06), 5 (38.99) and 6 (39.23) members. Meaning thereby, students with 7 members in the family have recognised the fundamental realities of creative effort (a. differences in viewpoint & b. differences must be aired openly with civility) more than students with 4, 5 and 6 members in the family.

DISCUSSION ON RESULTS

The findings of the study revealed that students from Majha region act more in ways that are consistent with their values and beliefs, and they think, feel and behave with consistency, genuineness, authenticity and honesty towards others; have

exhibited highly on shared aims and values, and work for building groups' vision; have recognized the fundamental realities of creative effort (a. differences in viewpoint & b. differences must be aired openly with civility) more; are better at recognizing that members of communities are interdependent and not independent; and have exhibited better understanding of the importance of making the world and society a better place for oneself and others than students from Doaba region. The results revealed that students from Majha region have exhibited highly on shared aims and values, and work for building groups' vision; and have recognized the fundamental realities of creative effort (a. differences in viewpoint & b. differences must be aired openly with civility) more than students from Malwa region. It is found that students from Malwa region act more in ways that are consistent with their values and beliefs, and they think, feel and behave with consistency, genuineness, authenticity and honesty towards others; and are having more energy to serve the group and its goals, and can invest significantly in terms of intensity and duration in an idea or person than students from Doaba region. From the results of the study, it is found that students with 7 members in the family have recognised the fundamental realities of creative effort (a. differences in viewpoint & b. differences must be aired openly with civility) more than students with 4, 5 and 6 members in the family.

4.12 SUMMARY OF CORRELATION BETWEEN CLASSROOM MANAGEMENT STYLES AND INSTITUTIONAL SUPPORT

The correlation between classroom management styles and institutional support has been calculated and results are presented by considering the following hypothesis:

Hypothesis 5 a- There is no significant correlation between classroom management styles and institutional support provided to students in secondary schools.

The Table 4.34 shows the coefficient of correlation between four classroom management styles i.e. authoritarian, laissez-faire, democratic and indifferent, and three dimensions of institutional support i.e. academic support (academic advising, learning support and academic support total), non-academic support (informational support, care and encouragement and non-academic support total) and institutional

facilities (learning environment, basic infrastructure, extended facilities and institutional facilities total) for the total sample of 1071 secondary school students.

TABLE 4.34: SUMMARY OF CORRELATION BETWEEN CLASSROOM MANAGEMENT STYLES AND INSTITUTIONAL SUPPORT

C	AA	LS	AST	IS	CAE	NAST	LE	BI	EF	IFT
A	-.124**	-.160**	-.148**	-.078*	-.181**	-.126**	-.120**	-.252**	-.324**	-.308**
L	.398**	.360**	.413**	.437**	.413**	.466**	.263**	.313**	.208**	.344**
D	.430**	.419**	.458**	.364**	.426**	.421**	.184**	.263**	.178**	.276**
I	.019	-.051	-.007	.089**	-.022	.053	-.072*	-.167**	-.175**	-.184**

** Correlation is significant at the 0.01 level (2-tailed).
 * Correlation is significant at the 0.05 level (2-tailed).
 C-Correlations, A-Authoritarian, L-Laissez-faire, D-Democratic, I-Indifferent
 AA- Academic Advising, LS- Learning Support, AST- Academic Support Total, IS- Informational Support, CAE- Care and Encouragement, NAST- Non Academic Support Total, LE- Learning Environment, BI- Basic Infrastructure, EF- Extended Facilities, IFT- Institutional Facilities Total

Correlation between authoritarian dimension of classroom management style and the dimensions of institutional support for secondary school students is found significant either at the 0.01 or 0.05 level of confidence i.e. academic advising (-.124**), learning support (-.160**), academic support total (-.148**), informational support (-.078*), care and encouragement (-.181**), non-academic support total (-.126**), learning environment (-.120**), basic infrastructure (-.252**), extended facilities (-.324**), institutional facilities total (-.308**). This indicates that there is significant negative relationship between authoritarian classroom management style and institutional support for secondary school students. It means that more the teachers exhibit authoritarian classroom management style as perceived by students, the less the institutional support. Vice-versa wherein ill equipped institutional support is there in schools, the teachers are more likely to exhibit authoritarian classroom management style.

Correlation between laissez-faire dimension of classroom management style and the dimensions of institutional support for secondary school students is found significant at the 0.01 level of confidence i.e. academic advising (.398**), learning support (.360**), academic support total (.413**), informational support (.437**), care and encouragement (.413**), non-academic support total (.466**), learning

environment (.263**), basic infrastructure (.313**), extended facilities (.208**), institutional facilities total (.344**). This indicates that there is significant positive relationship between laissez-faire classroom management style and institutional support for secondary school students. It means that more the teachers exhibit laissez-faire classroom management style as perceived by students, the more the institutional support. Vice-versa wherein more of institutional support is provided in schools, the teachers are more likely to exhibit laissez-faire classroom management style.

Correlation between democratic dimension of classroom management style and the dimensions of institutional support for secondary school students is found significant at the 0.01 level of confidence i.e. academic advising (.430**), learning support (.419**), academic support total (.458**), informational support (.364**), care and encouragement (.426**), non-academic support total (.421**), learning environment (.184**), basic infrastructure (.263**), extended facilities (.178**), institutional facilities total (.276**). This indicates that there is significant positive relationship between democratic classroom management style and institutional support for secondary school students. It means that more the teachers exhibit democratic classroom management style as perceived by students, the more the institutional support. Vice-versa wherein more of institutional support is provided in schools, the teachers are more likely to exhibit democratic classroom management style.

Correlation between indifferent dimension of classroom management style and dimensions of institutional support for secondary school students is found significant either at the 0.01 or 0.05 level of confidence i.e. informational support (.089**), learning environment (-.072*), basic infrastructure (-.167**), extended facilities (-.175**), institutional facilities total (-.184**) except five dimensions of institutional support i.e. academic advising (.019), learning support (-.051), academic support total (-.007), care and encouragement (-.022), non-academic support total (.053) which are not found to be significant even at 0.05 level of confidence. This indicates that there is significant negative relationship between indifferent classroom management style and learning environment, basic infrastructure, extended facilities and institutional facilities total dimensions of

institutional support for secondary school students. It means that more the teachers exhibit indifferent classroom management style as perceived by students, the less the institutional facilities. Vice-versa wherein ill equipped institutional facilities are there in schools, the teachers are more likely to exhibit indifferent classroom management style. The result also indicates that there is significant positive relationship between indifferent classroom management style and informational support dimension of institutional support for secondary school students. It means that more the informational support are provided in schools, the teachers are likely to exhibit indifferent classroom management style.

Thus, the correlations between the authoritarian, laissez-faire, democratic and indifferent styles of classroom management and the dimensions of institutional support for secondary school students are found to be significant. Hence, the null hypothesis, “There is no significant correlation between classroom management styles and institutional support provided to students in secondary schools” is rejected. The correlation between authoritarian classroom management style and institutional support is found to be negative which means that more the teachers exhibit authoritarian classroom management style as perceived by students, the less the institutional support. Vice-versa wherein less and ill equipped institutional support are there in schools, the teachers are more likely to exhibit authoritarian classroom management style. The correlation between indifferent classroom management style and institutional support is found to be negative which means that more the teachers exhibit indifferent classroom management style as perceived by students, the less the institutional support. Vice-versa wherein less and ill equipped institutional support are there in schools, the teachers are more likely to exhibit indifferent classroom management style. The correlation between laissez-faire classroom management style and institutional support is found to be positive which means that more the teachers exhibit laissez-faire classroom management style as perceived by students, the more the institutional support. Vice-versa wherein more of institutional support is provided in schools, the teachers are more likely to exhibit laissez-faire classroom management style. The correlation between democratic classroom management style and institutional support is found to be positive which

means that more the teachers exhibit democratic classroom management style as perceived by students, the more the institutional support. Vice-versa wherein more of institutional support is provided in schools, the teachers are more likely to exhibit democratic classroom management style.

DISCUSSION ON RESULTS

From the results of the study, it is found that the correlation between authoritarian classroom management style and institutional support is found to be negative which means that more the teachers exhibit authoritarian classroom management style as perceived by students, the less the institutional support. Vice-versa wherein less and ill equipped institutional support are there in schools, the teachers are more likely to exhibit authoritarian classroom management style. Similarly, the correlation between indifferent classroom management style and institutional support is also found to be negative which means that more the teachers exhibit indifferent classroom management style as perceived by students, the less the institutional support. Vice-versa wherein less and ill equipped institutional support are there in schools, the teachers are more likely to exhibit indifferent classroom management style. The results revealed that the correlation between laissez-faire classroom management style and institutional support is found to be positive which means that more the teachers exhibit laissez-faire classroom management style as perceived by students, the more the institutional support. Vice-versa wherein more of institutional support is provided in schools, the teachers are more likely to exhibit laissez-faire classroom management style. Likewise, the correlation between democratic classroom management style and institutional support is also found to be positive which means that more the teachers exhibit democratic classroom management style as perceived by students, the more the institutional support. Vice-versa wherein more of institutional support is provided in schools, the teachers are more likely to exhibit democratic classroom management style. Thus, the findings of the present study have revealed the significant correlation between classroom management styles and institutional support provided to students in secondary schools.

4.13 SUMMARY OF CORRELATION BETWEEN CREDIBILITY OF TEACHERS AND INSTITUTIONAL SUPPORT

The correlation between credibility of teachers and institutional support has been calculated and results are presented by considering the following hypothesis:

Hypothesis 5 b- There is no significant correlation between credibility of teachers and institutional support provided to students in secondary schools.

The Table 4.35 shows the coefficient of correlation between three dimensions of credibility of teachers i.e. competence, goodwill and trustworthiness, and three dimensions of institutional support i.e. academic support (academic advising, learning support and academic support total), non-academic support (informational support, care and encouragement and non-academic support total) and institutional facilities (learning environment, basic infrastructure, extended facilities and institutional facilities total) for the total sample of 1071 secondary school students.

TABLE 4.35: SUMMARY OF CORRELATION BETWEEN CREDIBILITY OF TEACHERS AND INSTITUTIONAL SUPPORT

C	AA	LS	AST	IS	CAE	NAST	LE	BI	EF	IFT
C	.306**	.310**	.331**	.289**	.323**	.328**	.165**	.254**	.176**	.264**
G	.414**	.338**	.416**	.412**	.414**	.449**	.203**	.245**	.165**	.269**
T	.307**	.292**	.324**	.321**	.344**	.358**	.195**	.291**	.228**	.315**

** Correlation is significant at the 0.01 level (2-tailed).
C-Correlations, C-Competence, G-Goodwill, T-Trustworthiness
AA- Academic Advising, LS- Learning Support, AST- Academic Support Total, IS- Informational Support, CAE- Care and Encouragement, NAST- Non-Academic Support Total, LE- Learning Environment, BI- Basic Infrastructure, EF- Extended Facilities, IFT- Institutional Facilities Total

Correlation between competence dimension of teacher credibility and the dimensions of institutional support for secondary school students is found significant at the 0.01 level of confidence i.e. academic advising (.306**), learning support (.310**), academic support total (.331**), informational support (.289**), care and encouragement (.323**), non-academic support total (.328**), learning environment (.165**), basic infrastructure (.254**), extended facilities (.176**), institutional facilities total (.264**). This indicates that there is significant positive relationship

between competence dimension of teacher credibility and institutional support for secondary school students. It means that more the teachers are perceived by students as credible in terms of competence, the more the institutional support. Vice-versa wherein more of the institutional support is provided in schools, the teachers are perceived as competent by the students.

Correlation between goodwill dimension of teacher credibility and the dimensions of institutional support for secondary school students is found significant at the 0.01 level of confidence i.e. academic advising (.414**), learning support (.338**), academic support total (.416**), informational support (.412**), care and encouragement (.414**), non-academic support total (.449**), learning environment (.203**), basic infrastructure (.245**), extended facilities (.165**), institutional facilities total (.269**). This indicates that there is significant positive relationship between goodwill dimension of teacher credibility and institutional support for secondary school students. It means that more the teachers are perceived by students as credible in terms of goodwill, the more the institutional support. Vice-versa wherein more of the institutional support is provided in schools, the teachers are perceived as credible in terms of goodwill by the students.

Correlation between trustworthiness dimension of teacher credibility and the dimensions of institutional support for secondary school students is found significant at the 0.01 level of confidence i.e. academic advising (.307**), learning support (.292**), academic support total (.324**), informational support (.321**), care and encouragement (.344**), non-academic support total (.358**), learning environment (.195**), basic infrastructure (.291**), extended facilities (.228**), institutional facilities total (.315**). This indicates that there is significant positive relationship between trustworthiness dimension of teacher credibility and institutional support for secondary school students. It means that more the teachers are perceived by students as credible in terms of trustworthiness, the more the institutional support. Vice-versa wherein more of the institutional support is provided in schools, the teachers are perceived as trustworthy by the students.

Thus, the significant and positive correlations are found between the dimensions of credibility of teachers and the dimensions of institutional support for secondary school students. Hence, the null hypothesis, “There is no significant correlation between credibility of teachers and institutional support provided to students in secondary schools” is rejected. It means that more the teachers are perceived as credible by the students, the more the institutional support. Vice-versa wherein more of the institutional support is provided in schools, the teachers are perceived as credible by the students.

DISCUSSION ON RESULTS

The results revealed the significant and positive correlation between credibility of teachers and institutional support provided to students in secondary schools. It is found that more the teachers are perceived as credible by the students, the more the institutional support. Vice-versa wherein more of the institutional support is provided in schools, the teachers are perceived as credible by the students.

4.14 SUMMARY OF CORRELATION BETWEEN CLASSROOM MANAGEMENT STYLES AND CREDIBILITY OF TEACHERS

The correlation between classroom management styles and credibility of teachers has been calculated and results are presented by considering the following hypothesis:

Hypothesis 5 c- There is no significant correlation between classroom management styles and credibility of teachers.

The Table 4.36 shows the coefficient of correlation between four classroom management styles i.e. authoritarian, laissez-faire, democratic and indifferent, and three dimensions of credibility of teachers i.e. competence, goodwill and trustworthiness for the total sample of 1071 secondary school students.

TABLE 4.36: SUMMARY OF CORRELATION BETWEEN CLASSROOM MANAGEMENT STYLES AND CREDIBILITY OF TEACHERS

Correlations	Authoritarian	Laissez-faire	Democratic	Indifferent
Competence	-.280**	.418**	.423**	-.092**
Goodwill	-.231**	.518**	.477**	-.018
Trustworthiness	-.262**	.436**	.383**	-.099**
** Correlation is significant at the 0.01 level (2-tailed).				

Correlation between authoritarian dimension of classroom management style and the dimensions of credibility of teachers for secondary school students is found significant at the 0.01 level of confidence i.e. competence (-.280**), goodwill (-.231**) and trustworthiness (-.262**). This indicates that there is significant negative relationship between authoritarian classroom management style and credibility of teachers for secondary school students. It means that students who perceive their teachers as authoritarian do not perceive their teachers as credible. Meaning thereby that the more the teachers act as authoritarian, the lesser the students perceive them as credible.

Correlation between laissez-faire dimension of classroom management style and the dimensions of credibility of teachers for secondary school students is found significant at the 0.01 level of confidence i.e. competence (.418**), goodwill (.518**) and trustworthiness (.436**). This indicates that there is significant positive relationship between laissez-faire classroom management style and credibility of teachers for secondary school students. It means that students who perceive their teachers as laissez-faire also perceive their teachers as credible. Meaning thereby that more the teachers act as laissez-faire, the more the students perceive them as credible.

Correlation between democratic dimension of classroom management style and the dimensions of credibility of teachers for secondary school students is found significant at the 0.01 level of confidence i.e. competence (.423**), goodwill (.477**) and trustworthiness (.383**). This indicates that there is significant positive relationship between democratic classroom management style and credibility of teachers for secondary school students. It means that students who

perceive their teachers as democratic also perceive their teachers as credible. Meaning thereby that more the teachers act as democratic, the more the students perceive them as credible.

Correlation between indifferent dimension of classroom management style and the dimensions of credibility of teachers for secondary school students is found significant at the 0.01 level of confidence i.e. competence (-.092**) and trustworthiness (-.099**) except one dimension of teacher credibility i.e. goodwill (-.018) which is not found to be significant even at 0.05 level of confidence. This indicates that there is significant negative relationship between indifferent classroom management style and competence and trustworthiness dimensions of teacher credibility for secondary school students. It means that students who perceive their teachers as indifferent do not perceive their teachers as competent and trustworthy. Meaning thereby that the more the teachers act as indifferent, the lesser the students perceive them as credible in terms of competence and trustworthiness.

The correlations between the dimensions of classroom management styles and the dimensions of credibility of teachers for secondary school students are found to be significant. Hence, the null hypothesis, "There is no significant correlation between classroom management styles and credibility of teachers" is rejected. The correlation between authoritarian classroom management style and credibility of teachers is found to be negative which means that students who perceive their teachers as authoritarian do not perceive their teachers as credible. Meaning thereby, the more the teachers act as authoritarian, the lesser the students perceive them as credible. The correlation between indifferent classroom management style and credibility of teachers is found to be negative which means that students who perceive their teachers as indifferent do not perceive their teachers as credible. Meaning thereby, the more the teachers act as indifferent, the lesser the students perceive them as credible. The correlation between laissez-faire classroom management style and credibility of teachers is found to be positive which means that students who perceive their teachers as laissez-faire also perceive their teachers as credible. Meaning thereby that more the teachers act as laissez-faire, the more the students perceive them as credible. The correlation between democratic classroom management style and credibility of teachers is found to be positive which means

that students who perceive their teachers as democratic also perceive their teachers as credible. Meaning thereby that more the teachers act as democratic, the more the students perceive them as credible.

DISCUSSION ON RESULTS

The results show the significant correlation between classroom management styles and credibility of teachers. It is concluded that the correlation between authoritarian classroom management style and credibility of teachers is found to be negative which means that students who perceive their teachers as authoritarian do not perceive their teachers as credible. Meaning thereby that the more the teachers act as authoritarian, the lesser the students perceive them as credible. Similarly, the correlation between indifferent classroom management style and credibility of teachers is also found to be negative which means that students who perceive their teachers as indifferent do not perceive their teachers as credible. Meaning thereby that the more the teachers act as indifferent, the lesser the students perceive them as credible. However, the correlation between laissez-faire classroom management style and credibility of teachers is found to be positive which means that students who perceive their teachers as laissez-faire also perceive their teachers as credible. Meaning thereby that more the teachers act as laissez-faire, the more the students perceive them as credible. Similarly, the correlation between democratic classroom management style and credibility of teachers is found to be positive which means that students who perceive their teachers as democratic also perceive their teachers as credible. Meaning thereby that more the teachers act as democratic, the more the students perceive them as credible.

4.15 SUMMARY OF CORRELATION BETWEEN

A. CLASSROOM MANAGEMENT STYLES AND ACHIEVEMENT MOTIVATION

B. CREDIBILITY OF TEACHERS AND ACHIEVEMENT MOTIVATION

C. INSTITUTIONAL SUPPORT AND ACHIEVEMENT MOTIVATION

The correlation between achievement motivation and the pairs of classroom management styles, credibility of teachers and institutional support has been calculated and results are presented by considering the following hypothesis:

Hypothesis 6- There is no significant correlation between achievement motivation of students, and (i) classroom management styles; (ii) credibility of teachers; (iii) institutional support.

The Table 4.37 shows the coefficient of correlation among four classroom management styles i.e. authoritarian, laissez-faire, democratic and indifferent, credibility of teachers, institutional support, and achievement motivation for the total sample of 1071 secondary school students.

TABLE 4.37: SUMMARY OF CORRELATION AMONG CLASSROOM MANAGEMENT STYLES, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT, AND ACHIEVEMENT MOTIVATION

Correlations	Achievement Motivation
Authoritarian	-.240**
Laissez-faire	.289**
Democratic	.380**
Indifferent	-.196**
Credibility of Teachers	.279**
Institutional Support	.413**
** Correlation is significant at the 0.01 level (2-tailed).	

Correlation between authoritarian dimension of classroom management style and achievement motivation is found significant at 0.01 level of confidence i.e. achievement motivation (-.240**). This indicates that there is significant negative relationship between authoritarian classroom management style and achievement motivation of secondary school students. It means that students who perceive their teachers' classroom management style as authoritarian tend to have low achievement motivation and vice versa.

Correlation between laissez-faire dimension of classroom management style and achievement motivation is found significant at 0.01 level of confidence i.e.

achievement motivation (.289**). This indicates that there is significant positive relationship between laissez-faire classroom management style and achievement motivation of secondary school students. It means that students who perceive their teachers' classroom management style as laissez-faire tend to have high achievement motivation and vice versa.

Correlation between democratic dimension of classroom management style and achievement motivation is found significant at 0.01 level of confidence i.e. achievement motivation (.380**). This indicates that there is significant positive relationship between democratic classroom management style and achievement motivation of secondary school students. It means that students who perceive their teachers' classroom management style as democratic tend to have high achievement motivation and vice versa.

Correlation between indifferent dimension of classroom management style and achievement motivation is found significant at 0.01 level of confidence i.e. achievement motivation (-.196**). This indicates that there is significant negative relationship between indifferent classroom management style and achievement motivation of secondary school students. It means that students who perceive their teachers' classroom management style as indifferent tend to have low achievement motivation and vice versa.

Correlation between credibility of teachers and the achievement motivation is found significant at the 0.01 level of confidence i.e. achievement motivation (.279**). This indicates that there is significant positive relationship between credibility of teachers and the achievement motivation of secondary school students. It means that students who perceive their teachers as credible tend to have high achievement motivation and vice versa.

Correlation between institutional support and the achievement motivation is found significant at the 0.01 level of confidence i.e. achievement motivation (.413**). This indicates that there is significant positive relationship between institutional support and the achievement motivation of secondary school students. It means that students who perceive more institutional support tend to have high achievement motivation and vice versa.

Thus, the correlations between four classroom management styles and achievement motivation of students; credibility of teachers and achievement motivation of students; and institutional support and achievement motivation of students are found to be significant. Hence, the null hypothesis, “There is no significant correlation between achievement motivation of students, and (i) classroom management styles; (ii) credibility of teachers; (iii) institutional support” is rejected. The correlation between authoritarian classroom management style and achievement motivation of students is found to be negative which means that students who perceive their teachers’ classroom management style as authoritarian tend to have low achievement motivation and vice versa. Similarly, the correlation between indifferent classroom management style and achievement motivation of students is found to be negative which means that students who perceive their teachers’ classroom management style as indifferent tend to have low achievement motivation and vice versa. However, the correlation between laissez-faire classroom management style and achievement motivation of students is found to be positive which means that students who perceive their teachers’ classroom management style as laissez-faire tend to have high achievement motivation and vice versa. The correlation between democratic classroom management style and achievement motivation of students is found to be positive which means that students who perceive their teachers’ classroom management style as democratic tend to have high achievement motivation and vice versa. The correlation between credibility of teachers and achievement motivation of students is found to be positive which means that students who perceive their teachers as credible tend to have high achievement motivation and vice versa. The correlation between institutional support and achievement motivation of students is found to be positive which means that students who perceive more institutional support tend to have high achievement motivation and vice versa.

DISCUSSION ON RESULTS

The findings of the study revealed that the correlation between authoritarian classroom management style and achievement motivation of students is found to be negative which means that students who perceive their teachers’ classroom management style as authoritarian tend to have low achievement motivation and

vice versa. Similarly, the correlation between indifferent classroom management style and achievement motivation of students is found to be negative which means that students who perceive their teachers' classroom management style as indifferent tend to have low achievement motivation and vice versa. However, the correlation between laissez-faire classroom management style and achievement motivation of students is found to be positive which means that students who perceive their teachers' classroom management style as laissez-faire tend to have high achievement motivation and vice versa. Similarly, the correlation between democratic classroom management style and achievement motivation of students is found to be positive which means that the students who perceive their teachers' classroom management style as democratic tend to have high achievement motivation and vice versa. Thus, the study revealed the significant correlation between classroom management styles and achievement motivation of students. This finding is supported by Asgari et al. (2016) who found that the achievement motivation of graduate students increases with the use of the interactive classroom management style and reduces with the use of the interventionist classroom management style.

The results revealed that the correlation between credibility of teachers and achievement motivation of students is found to be positive which means that students who perceive their teachers as credible tend to have high achievement motivation and vice versa. This finding is consistent with the result of Frymier and Thompson (1992) who concluded that teacher credibility is positively and significantly associated with undergraduate students' motivation to learn. Likewise, Teven and McCroskey (1997) concluded that when instructors are perceived as credible, there is an increase in motivation among university students. Myers and Martin (2006) also summarized that students who perceive their teachers as having high credibility are more motivated to learn. Pogue and Ahyun (2006) found that students experience more motivation with highly credible teachers. Similarly, Finn et al. (2009) found that students have reported greater motivation to learn when they perceive their teachers as credible.

The findings show that the correlation between institutional support and achievement motivation of students is found to be positive which means that students who perceive more institutional support provided by the schools tend to

have high achievement motivation and vice versa. This result is in line with the findings of Rao and Reddy (2016) who concluded that high school students with good school environment are better in their achievement motivation and Akomolafe and Adesua (2016) who found a significant relationship between physical facilities and senior secondary school students' level of motivation.

4.16 SUMMARY OF CORRELATION BETWEEN

A. CLASSROOM MANAGEMENT STYLES AND LEADERSHIP DEVELOPMENT

B. CREDIBILITY OF TEACHERS AND LEADERSHIP DEVELOPMENT

C. INSTITUTIONAL SUPPORT AND LEADERSHIP DEVELOPMENT

The correlation between leadership development and the pairs of classroom management styles, credibility of teachers and institutional support has been calculated and results are presented by considering the following hypothesis:

Hypothesis 7- There is no significant correlation between leadership development of students, and (i) classroom management styles; (ii) credibility of teachers; (iii) institutional support.

The Table 4.38 shows the coefficient of correlation among four classroom management styles i.e. authoritarian, laissez-faire, democratic and indifferent, credibility of teachers, institutional support, and leadership development for the total sample of 1071 secondary school students.

TABLE 4.38: SUMMARY OF CORRELATION AMONG CLASSROOM MANAGEMENT STYLES, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT, AND LEADERSHIP DEVELOPMENT

Correlations	Leadership Development
Authoritarian	-.099**
Laissez-faire	.245**
Democratic	.280**
Indifferent	-0.02
Credibility of Teachers	.254**
Institutional Support	.498**
** Correlation is significant at the 0.01 level (2-tailed).	

Correlation between authoritarian dimension of classroom management style and leadership development is found significant at 0.01 level of confidence i.e. leadership development (-.099**). This indicates that there is significant negative relationship between authoritarian classroom management style and leadership development of secondary school students. It means that students who perceive their teachers' classroom management style as authoritarian tend to have low leadership development and vice versa.

Correlation between laissez-faire dimension of classroom management style and leadership development is found significant at 0.01 level of confidence i.e. leadership development (.245**). This indicates that there is significant positive relationship between laissez-faire classroom management style and leadership development of secondary school students. It means that students who perceive their teachers' classroom management style as laissez-faire tend to have high leadership development and vice versa.

Correlation between democratic dimension of classroom management style and leadership development is found significant at 0.01 level of confidence i.e. leadership development (.280**). This indicates that there is significant positive relationship between democratic classroom management style and leadership development of secondary school students. It means that students who perceive their teachers' classroom management style as democratic tend to have high leadership development and vice versa.

Correlation between indifferent dimension of classroom management style and leadership development is not found to be significant even at 0.05 level of confidence i.e. leadership development (-0.02). This indicates that there is no significant relationship between indifferent classroom management style and leadership development of secondary school students.

Correlation between teacher credibility and the leadership development is found significant at the 0.01 level of confidence i.e. leadership development (.254**). This indicates that there is significant positive relationship between teacher credibility and the leadership development of secondary school students. It means

that students who perceive their teachers as credible tend to have high leadership development and vice versa.

Correlation between institutional support and the leadership development is found significant at the 0.01 level of confidence i.e. leadership development (.498**). This indicates that there is significant positive relationship between institutional support and the leadership development of secondary school students. It means that students who perceive more institutional support tend to have high leadership development and vice versa.

Thus, the significant correlation is found between classroom management styles and leadership development of students except one classroom management style i.e. indifferent classroom management style. The correlations between credibility of teachers and leadership development of students; and institutional support and leadership development of students are found to be significant. Hence, the null hypothesis, “There is no significant correlation between leadership development of students, and (i) classroom management styles; (ii) credibility of teachers; (iii) institutional support” is rejected except indifferent classroom management style. The correlation between authoritarian classroom management style and leadership development of students is found to be negative which means that students who perceive their teachers’ classroom management style as authoritarian tend to have low leadership development and vice versa. The correlation between laissez-faire classroom management style and leadership development of students is found to be positive which means that students who perceive their teachers’ classroom management style as laissez-faire tend to have high leadership development and vice versa. Similarly, the correlation between democratic classroom management style and leadership development of students is found to be positive which means that students who perceive their teachers’ classroom management style as democratic tend to have high leadership development and vice versa. The correlation between credibility of teachers and leadership development of students is found to be positive which means that students who perceive their teachers as credible tend to have high leadership development and vice versa. The correlation between institutional support and leadership development of students is found to be positive which means that

students who perceive more institutional support tend to have high leadership development and vice versa.

DISCUSSION ON RESULTS

The results of the study revealed that the correlation between authoritarian classroom management style and leadership development of students is found to be negative which means that students who perceive their teachers' classroom management style as authoritarian tend to have low leadership development and vice versa. This finding is supported by Wenning (1998) who reported that authoritarian style produces students who are ineffective at social interaction and somewhat inactive. However, the correlation between laissez-faire classroom management style and leadership development of students is found to be positive which means that students who perceive their teachers' classroom management style as laissez-faire tend to have high leadership development and vice versa. Similarly, it is shown that the correlation between democratic classroom management style and leadership development of students is found to be positive which means that students who perceive their teachers' classroom management style as democratic tend to have high leadership development and vice versa.

It is shown from the results that the correlation between credibility of teachers and leadership development of students is found to be positive which means that students who perceive their teachers as credible tend to have high leadership development and vice versa. The findings show that the correlation between institutional support and leadership development of students is found to be positive which means that students who perceive more institutional support tend to have high leadership development and vice versa. This finding is supported by McKinley et al. (1993) who reported that students' participation in student council, student organizations and activities enhance their administration and communications skills. Foreman and Retallick (2012) found that the more time spent each week involved in extracurricular activities, the higher the scores are on the socially responsible leadership scale.

4.17 SUMMARY OF CORRELATION BETWEEN ACHIEVEMENT MOTIVATION AND LEADERSHIP DEVELOPMENT

The correlation between achievement motivation and leadership development of students has been calculated and results are presented by considering the following hypothesis:

Hypothesis 8- There is no significant correlation between achievement motivation and leadership development of students in secondary schools.

The Table 4.39 shows the coefficient of correlation between eight dimensions of leadership development i.e. consciousness of self, congruence, commitment, common purpose, collaboration, controversy with civility, citizenship and change, and five dimensions i.e. work methods, academic challenge, attitude towards education and teachers, sports and dramatics, general interests and total score of achievement motivation for the total sample of 1071 secondary school students.

TABLE 4.39: SUMMARY OF CORRELATION BETWEEN ACHIEVEMENT MOTIVATION AND LEADERSHIP DEVELOPMENT

Correlations	Work Methods	Academic Challenge	Attitude Towards Education and Teachers	Sports and Dramatics	General Interests	Total
Consciousness of Self	.339**	.267**	.231**	.188**	.255**	.373**
Congruence	.359**	.252**	.214**	.211**	.251**	.375**
Commitment	.372**	.305**	.244**	.213**	.270**	.410**
Common Purpose	.335**	.272**	.217**	.195**	.240**	.368**
Collaboration	.393**	.306**	.247**	.267**	.245**	.426**
Controversy With Civility	.158**	.100**	0.019	.193**	.191**	.176**
Citizenship	.335**	.285**	.209**	.267**	.280**	.393**
Change	.308**	.229**	.255**	.113**	.255**	.340**
** Correlation is significant at the 0.01 level (2-tailed).						

Correlation between consciousness of self dimension of leadership development and dimensions of achievement motivation for secondary school students is found significant at 0.01 level of confidence i.e. work methods (.339**), academic challenge (.267**), attitude towards education and teachers (.231**), sports and dramatics (.188**), general interests (.255**) and total (.373**). This indicates that there is significant positive relationship between consciousness of self and achievement motivation for secondary school students. It means that students who have high achievement motivation tend to have high consciousness of self and vice versa.

Correlation between congruence dimension of leadership development and dimensions of achievement motivation for secondary school students is found significant at the 0.01 level of confidence i.e. work methods (.359**), academic challenge (.252**), attitude towards education and teachers (.214**), sports and dramatics (.211**), general interests (.251**) and total (.375**). This indicates that there is significant positive relationship between congruence and achievement motivation for secondary school students. It means that students who have high achievement motivation tend to have high congruence and vice versa.

Correlation between commitment dimension of leadership development and dimensions of achievement motivation for secondary school students is found significant at the 0.01 level of confidence i.e. work methods (.372**), academic challenge (.305**), attitude towards education and teachers (.244**), sports and dramatics (.213**), general interests (.270**) and total (.410**). This indicates that there is significant positive relationship between commitment and achievement motivation for secondary school students. It means that students who have high achievement motivation tend to have high commitment and vice versa.

Correlation between common purpose dimension of leadership development and dimensions of achievement motivation for secondary school students is found significant at the 0.01 level of confidence i.e. work methods (.335**), academic challenge (.272**), attitude towards education and teachers (.217**), sports and dramatics (.195**), general interests (.240**) and total (.368**). This indicates that there is significant positive relationship between common purpose and achievement

motivation for secondary school students. It means that students who have high achievement motivation tend to have high common purpose and vice versa

Correlation between collaboration dimension of leadership development and dimensions of achievement motivation for secondary school students is found significant at the 0.01 level of confidence i.e. work methods (.393**), academic challenge (.306**), attitude towards education and teachers (.247**), sports and dramatics (.267**), general interests (.245**) and total (.426**). This indicates that there is significant positive relationship between collaboration and achievement motivation for secondary school students. It means that students who have high achievement motivation tend to have high collaboration and vice versa.

Correlation between controversy with civility dimension of leadership development and dimensions of achievement motivation for secondary school students is found significant at the 0.01 level of confidence i.e. work methods (.158**), academic challenge (.100**), sports and dramatics (.193**), general interests (.191**) and total (.176**) except one dimension of achievement motivation i.e. attitude towards education and teachers (.019) which is not found to be significant even at 0.05 level of confidence. This indicates that there is significant positive relationship between controversy with civility and achievement motivation for secondary school students. It means that students who have high achievement motivation tend to have high controversy with civility and vice versa.

Correlation between citizenship dimension of leadership development and dimensions of achievement motivation for secondary school students is found significant at the 0.01 level of confidence i.e. work methods (.335**), academic challenge (.285**), attitude towards education and teachers (.209**), sports and dramatics (.267**), general interests (.280**) and total (.393**). This indicates that there is significant positive relationship between citizenship and achievement motivation for secondary school students. It means that students who have high achievement motivation tend to have high citizenship and vice versa.

Correlation between change dimension of leadership development and dimensions of achievement motivation for secondary school students is found significant at the 0.01 level of confidence i.e. work methods (.308**), academic

challenge (.229**), attitude towards education and teachers (.255**), sports and dramatics (.113**), general interests (.255**) and total (.340**). This indicates that there is significant positive relationship between change and achievement motivation for secondary school students. It means that students who have high achievement motivation tend to have high change and vice versa.

Thus, the correlation between the dimensions of leadership development and the dimensions and total score of achievement motivation for secondary school students is found to be significant. Hence, the null hypothesis, “There is no significant correlation between achievement motivation and leadership development of students in secondary schools” is rejected. The correlation between leadership development and achievement motivation is found to be positive which means that students who have high achievement motivation tend to have high leadership development and vice versa.

DISCUSSION ON RESULTS

The results of the study revealed the significant and positive correlation between achievement motivation and leadership development of students in secondary schools. It means that students who have high achievement motivation tend to have high leadership development and vice versa.

4.18 SUMMARY OF REGRESSION ANALYSIS FOR THE SCORES OF ACHIEVEMENT MOTIVATION OF STUDENTS

To ascertain the conjoint contribution of independent variables i.e. classroom management styles, credibility of teachers and institutional support to the total variance of dependent variable i.e. achievement motivation, multiple regression analysis has been computed. The results are presented by considering the following hypothesis 9a, hypothesis 9b, hypothesis 9c and hypothesis 9d keeping in view different classroom management styles.

Hypothesis 9 a- There is no significant impact of authoritarian classroom management style, credibility of teachers and institutional support on the achievement motivation of students.

The Table 4.40 shows how much is the contribution of each independent variable in explaining the total variation (19.5%) and also whether all the three contribute to total variance.

TABLE 4.40: MODEL SUMMARY OF MULTIPLE REGRESSION ANALYSIS BETWEEN THE PREDICTOR VARIABLES (AUTHORITARIAN CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) AND OUTCOME VARIABLE (ACHIEVEMENT MOTIVATION) OF STUDENTS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.441 ^a	0.195	0.192	2.69191
a. Predictors: (Constant), Institutional Support, Authoritarian Classroom Management Style, Credibility of Teachers				

The three variables authoritarian classroom management style, credibility of teachers and institutional support are able to explain 19.5% of the variance in the dependent variable. In order to understand that the variation due to independent variables is able to report a regression equation fitting the data ANOVA analysis is presented below.

TABLE 4.41: SUMMARY OF ANOVA ANALYSIS BETWEEN THE PREDICTOR VARIABLES (AUTHORITARIAN CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) AND OUTCOME VARIABLE (ACHIEVEMENT MOTIVATION) OF STUDENTS

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1867.985	3	622.662	85.927	.000 ^b
	Residual	7731.879	1067	7.246		
	Total	9599.864	1070			
a. Dependent Variable: Achievement Motivation						
b. Predictors: (Constant), Institutional Support, Authoritarian Classroom Management Style, Credibility of Teachers						

The dependent variable is predicted well by the three independent variables, since, the p value 0.000 (< 0.05) is less than 0.05 level. Thus, it can be said that the data is a good fit to frame a regression equation. In order to frame the equation, coefficients table is given below.

**TABLE 4.42: SUMMARY OF RELATIVE CONTRIBUTION OF PREDICTOR VARIABLES
(AUTHORITARIAN CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF
TEACHERS, INSTITUTIONAL SUPPORT) IN OUTCOME VARIABLE
(ACHIEVEMENT MOTIVATION) OF STUDENTS**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.385	0.906		13.67	0.000
	Authoritarian Classroom Management Style	-0.047	0.010	-0.133	-4.581	0.000
	Credibility of Teachers	0.065	0.029	0.073	2.287	0.022
	Institutional Support	0.212	0.019	0.344	10.874	0.000
a. Dependent Variable: Achievement Motivation						

From the table above, it is clear that all the three independent variables are found to be significantly contributing to the total variance since the p values for the respective variables i.e. authoritarian classroom management style p value = 0.000 (<0.05), credibility of teachers p value = 0.022 (<0.05), institutional support p value = 0.000 (<0.05) are found significant. Hence, the regression equation for the achievement motivation can be presented as

$$\text{Achievement motivation} = 12.385 - 0.047 \times \text{authoritarian classroom management style} + 0.065 \times \text{credibility of teachers} + 0.212 \times \text{institutional support}$$

Hence, the null hypothesis “There is no significant impact of authoritarian classroom management style, credibility of teachers and institutional support on the achievement motivation of students” is rejected. Meaning thereby, authoritarian classroom management style, credibility of teachers and institutional support have significant impact on the achievement motivation of secondary school students. Further, it is found that when teachers’ exhibit authoritarian classroom management style, it contributes negatively to the achievement motivation of students whereas credibility of teachers and institutional support contribute positively to the achievement motivation of students.

Hypothesis 9 b- There is no significant impact of laissez-faire classroom management style, credibility of teachers and institutional support on the achievement motivation of students.

The Table 4.43 shows how much is the contribution of each independent variable in explaining the total variation (18.3%) and also whether all the three contribute to total variance.

TABLE 4.43: MODEL SUMMARY OF MULTIPLE REGRESSION ANALYSIS BETWEEN THE PREDICTOR VARIABLES (LAISSEZ-FAIRE CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) AND OUTCOME VARIABLE (ACHIEVEMENT MOTIVATION) OF STUDENTS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.427 ^a	0.183	0.180	2.71192
a. Predictors: (Constant), Institutional Support, Credibility of Teachers, Laissez-faire Classroom Management Style				

The three variables laissez-faire classroom management style, credibility of teachers and institutional support are able to explain 18.3% of the variance in the dependent variable. In order to understand that the variation due to independent variables is able to report a regression equation fitting the data ANOVA analysis is presented below.

TABLE 4.44: SUMMARY OF ANOVA ANALYSIS BETWEEN THE PREDICTOR VARIABLES (LAISSEZ-FAIRE CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) AND OUTCOME VARIABLE (ACHIEVEMENT MOTIVATION) OF STUDENTS

Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	1752.626	3	584.209	79.436	.000 ^b
	Residual	7847.237	1067	7.354		
	Total	9599.864	1070			
a. Dependent Variable: Achievement Motivation						
b. Predictors: (Constant), Institutional Support, Credibility of Teachers, Laissez-faire Classroom Management Style						

The dependent variable is predicted well by the three independent variables, since, the p value 0.000 (< 0.05) is less than 0.05 level. Thus, it can be said that the data is a good fit to frame a regression equation. In order to frame the equation, coefficients table is given below.

TABLE 4.45: SUMMARY OF RELATIVE CONTRIBUTION OF PREDICTOR VARIABLES (LAISSEZ-FAIRE CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) IN OUTCOME VARIABLE (ACHIEVEMENT MOTIVATION) OF STUDENTS

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.307	0.783		13.158	0.000
	Laissez-faire Classroom Management Style	0.038	0.017	0.077	2.235	0.026
	Credibility of Teachers	0.067	0.030	0.076	2.222	0.026
	Institutional Support	0.207	0.021	0.337	9.979	0.000
a. Dependent Variable: Achievement Motivation						

From the table above, it is clear that all the three independent variables are found to be significantly contributing to the total variance since the p values for the respective variables i.e. laissez-faire classroom management style p value = 0.026 (<0.05), credibility of teachers p value = 0.026 (<0.05), institutional support p value = 0.000 (<0.05) are found significant. Hence, the regression equation for the achievement motivation can be presented as

$$\text{Achievement motivation} = 10.307 + 0.038 \times \text{laissez-faire classroom management style} + 0.067 \times \text{credibility of teachers} + 0.207 \times \text{institutional support}$$

Hence, the null hypothesis “There is no significant impact of laissez-faire classroom management style, credibility of teachers and institutional support on the achievement motivation of students” is rejected. Meaning thereby, laissez-faire classroom management style, credibility of teachers and institutional support have significant impact on the achievement motivation of secondary school students.

Hypothesis 9 c- There is no significant impact of democratic classroom management style, credibility of teachers and institutional support on the achievement motivation of students.

The Table 4.46 shows how much is the contribution of each independent variable in explaining the total variation (21.4%) and also whether all the three contribute to total variance.

TABLE 4.46: MODEL SUMMARY OF MULTIPLE REGRESSION ANALYSIS BETWEEN THE PREDICTOR VARIABLES (DEMOCRATIC CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) AND OUTCOME VARIABLE (ACHIEVEMENT MOTIVATION) OF STUDENTS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.463 ^a	0.214	0.212	2.65872
a. Predictors: (Constant), Institutional Support, Democratic Classroom Management Style, Credibility of Teachers				

The three variables democratic classroom management style, credibility of teachers and institutional support are able to explain 21.4% of the variance in the dependent variable. In order to understand that the variation due to independent variables is able to report a regression equation fitting the data ANOVA analysis is presented below.

TABLE 4.47: SUMMARY OF ANOVA ANALYSIS BETWEEN THE PREDICTOR VARIABLES (DEMOCRATIC CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) AND OUTCOME VARIABLE (ACHIEVEMENT MOTIVATION) OF STUDENTS

Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	2057.435	3	685.812	97.019	.000 ^b
	Residual	7542.428	1067	7.069		
	Total	9599.864	1070			
a. Dependent Variable: Achievement Motivation						
b. Predictors: (Constant), Institutional Support, Democratic Classroom Management Style, Credibility of Teachers						

The dependent variable is predicted well by the three independent variables, since, the p value 0.000 (< 0.05) is less than 0.05 level. Thus, it can be said that the data is a good fit to frame a regression equation. In order to frame the equation, coefficients table is given below.

TABLE 4.48: SUMMARY OF RELATIVE CONTRIBUTION OF PREDICTOR VARIABLES (DEMOCRATIC CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) IN OUTCOME VARIABLE (ACHIEVEMENT MOTIVATION) OF STUDENTS

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.561	0.805		10.633	0.000
	Democratic Classroom Management Style	0.119	0.017	0.228	6.951	0.000
	Credibility of Teachers	0.024	0.029	0.027	0.822	0.411
	Institutional Support	0.179	0.020	0.291	8.88	0.000
a. Dependent Variable: Achievement Motivation						

From the table above, it is clear that the two independent variables are found to be significantly contributing to the total variance since the p values for the respective variables i.e. democratic classroom management style p value = 0.000 (<0.05), institutional support p value = 0.000 (<0.05) are found significant. Hence, the regression equation for the achievement motivation can be presented as

$$\text{Achievement motivation} = 8.561 + 0.119 \times \text{democratic classroom management style} + 0.179 \times \text{institutional support}$$

Hence, the null hypothesis “There is no significant impact of democratic classroom management style, credibility of teachers and institutional support on the achievement motivation of students” is partially rejected. Meaning thereby, democratic classroom management style and institutional support have significant impact on the achievement motivation of secondary school students. However, credibility of teachers is not predicting the achievement motivation of the students which means that credibility of teachers has no significant impact on achievement motivation of secondary school students.

Hypothesis 9 d- There is no significant impact of indifferent classroom management style, credibility of teachers and institutional support on the achievement motivation of students.

The Table 4.49 shows how much is the contribution of each independent variable in explaining the total variation (20.6%) and also whether all the three contribute to total variance.

TABLE 4.49: MODEL SUMMARY OF MULTIPLE REGRESSION ANALYSIS BETWEEN THE PREDICTOR VARIABLES (INDIFFERENT CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) AND OUTCOME VARIABLE (ACHIEVEMENT MOTIVATION) OF STUDENTS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.454 ^a	0.206	0.204	2.67235
a. Predictors: (Constant), Institutional Support, Indifferent Classroom Management Style, Credibility of Teachers				

The three variables indifferent classroom management style, credibility of teachers and institutional support are able to explain 20.6% of the variance in the dependent variable. In order to understand that the variation due to independent variables is able to report a regression equation fitting the data ANOVA analysis is presented below.

TABLE 4.50: SUMMARY OF ANOVA ANALYSIS BETWEEN THE PREDICTOR VARIABLES (INDIFFERENT CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) AND OUTCOME VARIABLE (ACHIEVEMENT MOTIVATION) OF STUDENTS

Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	1979.916	3	659.972	92.414	.000 ^b
	Residual	7619.948	1067	7.141		
	Total	9599.864	1070			
a. Dependent Variable: Achievement Motivation						
b. Predictors: (Constant), Institutional Support, Indifferent Classroom Management Style, Credibility of Teachers						

The dependent variable is predicted well by the three independent variables, since, the p value 0.000 (< 0.05) is less than 0.05 level. Thus, it can be said that the data is a good fit to frame a regression equation. In order to frame the equation, coefficients table is given below.

TABLE 4.51: SUMMARY OF RELATIVE CONTRIBUTION OF PREDICTOR VARIABLES (INDIFFERENT CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) IN OUTCOME VARIABLE (ACHIEVEMENT MOTIVATION) OF STUDENTS

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.169	0.833		14.600	0.000
	Indifferent Classroom Management Style	-0.106	0.017	-0.166	-6.080	0.000
	Credibility of Teachers	0.083	0.028	0.093	2.974	0.003
	Institutional Support	0.22	0.019	0.358	11.458	0.000
a. Dependent Variable: Achievement Motivation						

From the table above, it is clear that all the three independent variables are found to be significantly contributing to the total variance since the p values for the respective variables i.e. indifferent classroom management style p value = 0.000 (<0.05), credibility of teachers p value = 0.003 (<0.05), institutional support p value = 0.000 (<0.05) are found significant. Hence, the regression equation for the achievement motivation can be presented as

$$\text{Achievement motivation} = 12.169 - 0.106 \times \text{indifferent classroom management style} + 0.083 \times \text{credibility of teachers} + 0.220 \times \text{institutional support}$$

Hence, the null hypothesis “There is no significant impact of indifferent classroom management style, credibility of teachers and institutional support on the achievement motivation of students” is rejected. Meaning thereby, indifferent classroom management style, credibility of teachers and institutional support have significant impact on the achievement motivation of secondary school students. Further, it is found that when teachers’ exhibit indifferent classroom management style, it contributes negatively to the achievement motivation of students whereas

credibility of teachers and institutional support contribute positively to the achievement motivation of students.

DISCUSSION ON RESULTS

It is shown from the results that authoritarian classroom management style, credibility of teachers and institutional support have significant impact on the achievement motivation of secondary school students. It is found that when teachers' exhibit authoritarian classroom management style, it contributes negatively to the achievement motivation of students whereas credibility of teachers and institutional support contribute positively to the achievement motivation of students. The findings revealed that laissez-faire classroom management style, credibility of teachers and institutional support have significant impact on the achievement motivation of secondary school students. The results revealed that the hypothesis "There is no significant impact of democratic classroom management style, credibility of teachers and institutional support on the achievement motivation of students" is partially rejected. Meaning thereby, democratic classroom management style and institutional support have significant impact on the achievement motivation of secondary school students. However, credibility of teachers is not predicting the achievement motivation of the students which means that credibility of teachers has no significant impact on achievement motivation of secondary school students. From the results of the study, it is found that indifferent classroom management style, credibility of teachers and institutional support have significant impact on the achievement motivation of secondary school students. It is found that when teachers' exhibit indifferent classroom management style, it contributes negatively to the achievement motivation of students whereas credibility of teachers and institutional support contribute positively to the achievement motivation of students.

4.19 SUMMARY OF REGRESSION ANALYSIS FOR THE SCORES OF LEADERSHIP DEVELOPMENT OF STUDENTS

To ascertain the conjoint contribution of independent variables i.e. classroom management styles, credibility of teachers and institutional support to the total variance of dependent variable i.e. leadership development, multiple regression analysis has been computed. The results are presented by considering the following

hypothesis 10a, hypothesis 10b, hypothesis 10c, and hypothesis 10d keeping in view different classroom management styles.

Hypothesis 10 a- There is no significant impact of authoritarian classroom management style, credibility of teachers and institutional support on the leadership development of students.

The Table 4.52 shows how much is the contribution of each independent variable in explaining the total variation (24.9%) and also whether all the three contribute to total variance.

TABLE 4.52: MODEL SUMMARY OF MULTIPLE REGRESSION ANALYSIS BETWEEN THE PREDICTOR VARIABLES (AUTHORITARIAN CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) AND OUTCOME VARIABLE (LEADERSHIP DEVELOPMENT) OF STUDENTS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.499 ^a	0.249	0.247	2.44851

a. Predictors: (Constant), Institutional Support, Authoritarian Classroom Management Style, Credibility of Teachers

The three variables authoritarian classroom management style, credibility of teachers and institutional support are able to explain 24.9% of the variance in the dependent variable. In order to understand that the variation due to independent variables is able to report a regression equation fitting the data ANOVA analysis is presented below.

TABLE 4.53: SUMMARY OF ANOVA ANALYSIS BETWEEN THE PREDICTOR VARIABLES (AUTHORITARIAN CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) AND OUTCOME VARIABLE (LEADERSHIP DEVELOPMENT) OF STUDENTS

Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	2122.382	3	707.461	118.004	.000 ^b
	Residual	6396.881	1067	5.995		
	Total	8519.263	1070			

a. Dependent Variable: Leadership Development
b. Predictors: (Constant), Institutional Support, Authoritarian Classroom Management Style, Credibility of Teachers

The dependent variable is predicted well by the three independent variables, since, the p value 0.000 (< 0.05) is less than 0.05 level. Thus, it can be said that the data is a good fit to frame a regression equation. In order to frame the equation, coefficients table is given below.

TABLE 4.54: SUMMARY OF RELATIVE CONTRIBUTION OF PREDICTOR VARIABLES (AUTHORITARIAN CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) IN OUTCOME VARIABLE (LEADERSHIP DEVELOPMENT) OF STUDENTS

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	21.656	0.824		26.278	0.000
	Authoritarian Classroom Management Style	0.010	0.009	0.031	1.096	0.273
	Credibility of Teachers	0.019	0.026	0.023	0.742	0.458
	Institutional Support	0.287	0.018	0.495	16.166	0.000
a. Dependent Variable: Leadership Development						

From the table above, it is clear that one independent variable is found to be significantly contributing to the total variance since the p value for the respective variable i.e. institutional support p value = 0.000 (<0.05) is found significant. Hence, the regression equation for the leadership development can be presented as

$$\text{Leadership development} = 21.656 + 0.287 \times \text{institutional support}$$

Hence, the null hypothesis “There is no significant impact of authoritarian classroom management style, credibility of teachers and institutional support on the leadership development of students” is partially rejected. Meaning thereby, institutional support has significant impact on the leadership development of secondary school students. However, authoritarian classroom management style and credibility of teachers are not predicting the leadership development of the students which means that authoritarian classroom management style and credibility of teachers have no significant impact on leadership development.

Hypothesis 10 b- There is no significant impact of laissez-faire classroom management style, credibility of teachers and institutional support on the leadership development of students.

The Table 4.55 shows how much is the contribution of each independent variable in explaining the total variation (24.9%) and also whether all the three contribute to total variance.

TABLE 4.55: MODEL SUMMARY OF MULTIPLE REGRESSION ANALYSIS BETWEEN THE PREDICTOR VARIABLES (LAISSEZ-FAIRE CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) AND OUTCOME VARIABLE (LEADERSHIP DEVELOPMENT) OF STUDENTS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.499 ^a	0.249	0.246	2.44936
a. Predictors: (Constant), Institutional Support, Credibility of Teachers, Laissez-faire Classroom Management Style				

The three variables laissez-faire classroom management style, credibility of teachers and institutional support are able to explain 24.9% of the variance in the dependent variable. In order to understand that the variation due to independent variables is able to report a regression equation fitting the data ANOVA analysis is presented below.

TABLE 4.56: SUMMARY OF ANOVA ANALYSIS BETWEEN THE PREDICTOR VARIABLES (LAISSEZ-FAIRE CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) AND OUTCOME VARIABLE (LEADERSHIP DEVELOPMENT) OF STUDENTS

Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	2117.958	3	705.986	117.677	.000 ^b
	Residual	6401.305	1067	5.999		
	Total	8519.263	1070			
a. Dependent Variable: Leadership Development						
b. Predictors: (Constant), Institutional Support, Credibility of Teachers, Laissez-faire Classroom Management Style						

The dependent variable is predicted well by the three independent variables, since, the p value 0.000 (< 0.05) is less than 0.05 level. Thus, it can be said that the data is a good fit to frame a regression equation. In order to frame the equation, coefficients table is given below.

TABLE 4.57: SUMMARY OF RELATIVE CONTRIBUTION OF PREDICTOR VARIABLES (LAISSEZ-FAIRE CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) IN OUTCOME VARIABLE (LEADERSHIP DEVELOPMENT) OF STUDENTS

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	22.104	0.707		31.243	0.000
	Laissez-faire Classroom Management Style	-0.011	0.016	-0.023	-0.680	0.497
	Credibility of Teachers	0.020	0.027	0.024	0.742	0.458
	Institutional Support	0.289	0.019	0.498	15.389	0.000
a. Dependent Variable: Leadership Development						

From the table above, it is clear that one independent variable is found to be significantly contributing to the total variance since the p value for the respective variable i.e. institutional support p value = 0.000 (<0.05) is found significant. Hence, the regression equation for the leadership development can be presented as

$$\text{Leadership development} = 22.104 + 0.289 \times \text{institutional support}$$

Hence, the null hypothesis “There is no significant impact of laissez-faire classroom management style, credibility of teachers and institutional support on the leadership development of students” is partially rejected. Meaning thereby, institutional support has significant impact on the leadership development of secondary school students. However, laissez-faire classroom management style and credibility of teachers are not predicting the leadership development of the students which means that laissez-faire classroom management style and credibility of teachers have no significant impact on leadership development.

Hypothesis 10 c- There is no significant impact of democratic classroom management style, credibility of teachers and institutional support on the leadership development of students.

The Table 4.58 shows how much is the contribution of each independent variable in explaining the total variation (25%) and also whether all the three contribute to total variance.

TABLE 4.58: MODEL SUMMARY OF MULTIPLE REGRESSION ANALYSIS BETWEEN THE PREDICTOR VARIABLES (DEMOCRATIC CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) AND OUTCOME VARIABLE (LEADERSHIP DEVELOPMENT) OF STUDENTS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.500 ^a	0.250	0.248	2.44665
a. Predictors: (Constant), Institutional Support, Democratic Classroom Management Style, Credibility of Teachers				

The three variables democratic classroom management style, credibility of teachers and institutional support are able to explain 25% of the variance in the dependent variable. In order to understand that the variation due to independent variables is able to report a regression equation fitting the data ANOVA analysis is presented below.

TABLE 4.59: SUMMARY OF ANOVA ANALYSIS BETWEEN THE PREDICTOR VARIABLES (DEMOCRATIC CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) AND OUTCOME VARIABLE (LEADERSHIP DEVELOPMENT) OF STUDENTS

Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	2132.103	3	710.701	118.725	.000 ^b
	Residual	6387.16	1067	5.986		
	Total	8519.263	1070			
a. Dependent Variable: Leadership Development						
b. Predictors: (Constant), Institutional Support, Democratic Classroom Management Style, Credibility of Teachers						

The dependent variable is predicted well by the three independent variables, since, the p value 0.000 (< 0.05) is less than 0.05 level. Thus, it can be said that the data is a good fit to frame a regression equation. In order to frame the equation, coefficients table is given below.

TABLE 4.60: SUMMARY OF RELATIVE CONTRIBUTION OF PREDICTOR VARIABLES (DEMOCRATIC CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) IN OUTCOME VARIABLE (LEADERSHIP DEVELOPMENT) OF STUDENTS

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	21.744	0.741		29.345	0.000
	Democratic Classroom Management Style	0.026	0.016	0.054	1.681	0.093
	Credibility of Teachers	-0.002	0.027	-0.002	-0.059	0.953
	Institutional Support	0.274	0.019	0.473	14.800	0.000
a. Dependent Variable: Leadership Development						

From the table above, it is clear that one independent variable is found to be significantly contributing to the total variance since the p value for the respective variable i.e. institutional support p value = 0.000 (<0.05) is found significant. Hence, the regression equation for the leadership development can be presented as

$$\text{Leadership development} = 21.744 + 0.274 \times \text{institutional support}$$

Hence, the null hypothesis “There is no significant impact of democratic classroom management style, credibility of teachers and institutional support on the leadership development of students” is partially rejected. Meaning thereby, institutional support has significant impact on the leadership development of secondary school students. However, democratic classroom management style and credibility of teachers are not predicting the leadership development of the students which means that democratic classroom management style and credibility of teachers have no significant impact on leadership development.

Hypothesis 10 d- There is no significant impact of indifferent classroom management style, credibility of teachers and institutional support on the leadership development of students.

The Table 4.61 shows how much is the contribution of each independent variable in explaining the total variation (24.8%) and also whether all the three contribute to total variance.

TABLE 4.61: MODEL SUMMARY OF MULTIPLE REGRESSION ANALYSIS BETWEEN THE PREDICTOR VARIABLES (INDIFFERENT CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) AND OUTCOME VARIABLE (LEADERSHIP DEVELOPMENT) OF STUDENTS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.498 ^a	0.248	0.246	2.44966
a. Predictors: (Constant), Institutional Support, Indifferent Classroom Management Style, Credibility of Teachers				

The three variables indifferent classroom management style, credibility of teachers and institutional support are able to explain 24.8% of the variance in the dependent variable. In order to understand that the variation due to independent variables is able to report a regression equation fitting the data ANOVA analysis is presented below.

TABLE 4.62: SUMMARY OF ANOVA ANALYSIS BETWEEN THE PREDICTOR VARIABLES (INDIFFERENT CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) AND OUTCOME VARIABLE (LEADERSHIP DEVELOPMENT) OF STUDENTS

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2116.372	3	705.457	117.560	.000 ^b
	Residual	6402.892	1067	6.001		
	Total	8519.263	1070			
a. Dependent Variable: Leadership Development						
b. Predictors: (Constant), Institutional Support, Indifferent Classroom Management Style, Credibility of Teachers						

The dependent variable is predicted well by the three independent variables, since, the p value 0.000 (< 0.05) is less than 0.05 level. Thus, it can be said that the data is a good fit to frame a regression equation. In order to frame the equation, coefficients table is given below.

TABLE 4.63: SUMMARY OF RELATIVE CONTRIBUTION OF PREDICTOR VARIABLES (INDIFFERENT CLASSROOM MANAGEMENT STYLE, CREDIBILITY OF TEACHERS, INSTITUTIONAL SUPPORT) IN OUTCOME VARIABLE (LEADERSHIP DEVELOPMENT) OF STUDENTS

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	21.991	0.764		28.783	0.000
	Indifferent Classroom Management Style	0.007	0.016	0.012	0.445	0.657
	Credibility of Teachers	0.014	0.026	0.017	0.554	0.580
	Institutional Support	0.284	0.018	0.491	16.156	0.000
a. Dependent Variable: Leadership Development						

From the table above, it is clear that one independent variable is found to be significantly contributing to the total variance since the p value for the respective variable i.e. institutional support p value = 0.000 (<0.05) is found significant. Hence, the regression equation for the leadership development can be presented as

$$\text{Leadership development} = 21.991 + 0.284 \times \text{institutional support}$$

Hence, the null hypothesis “There is no significant impact of indifferent classroom management style, credibility of teachers and institutional support on the leadership development of students” is partially rejected. Meaning thereby, institutional support has significant impact on the leadership development of secondary school students. However, indifferent classroom management style and credibility of teachers are not predicting the leadership development of the students which means that indifferent classroom management style and credibility of teachers have no significant impact on leadership development.

DISCUSSION ON RESULTS

From the results of the study, it is found that that the null hypothesis “There is no significant impact of authoritarian classroom management style, credibility of teachers and institutional support on the leadership development of students” is partially rejected. Meaning thereby, institutional support has significant impact on the leadership development of secondary school students. However, authoritarian classroom management style and credibility of teachers are not predicting the leadership development of the students which means that authoritarian classroom management style and credibility of teachers have no significant impact on leadership development. The results revealed that the null hypothesis “There is no significant impact of laissez-faire classroom management style, credibility of teachers and institutional support on the leadership development of students” is partially rejected. Meaning thereby, institutional support has significant impact on the leadership development of secondary school students. However, laissez-faire classroom management style and credibility of teachers are not predicting the leadership development of the students which means that laissez-faire classroom management style and credibility of teachers have no significant impact on leadership development. The findings revealed that the null hypothesis “There is no significant impact of democratic classroom management style, credibility of teachers and institutional support on the leadership development of students” is partially rejected. Meaning thereby, institutional support has significant impact on the leadership development of secondary school students. However, democratic classroom management style and credibility of teachers are not predicting the leadership development of the students which means that democratic classroom management style and credibility of teachers have no significant impact on leadership development. It is shown from the results that the null hypothesis “There is no significant impact of indifferent classroom management style, credibility of teachers and institutional support on the leadership development of students” is partially rejected. Meaning thereby, institutional support has significant impact on the leadership development of secondary school students. However, indifferent classroom management style and credibility of teachers are not predicting the leadership development of the students which means that indifferent classroom management style and credibility of teachers have no significant impact on leadership development.

CHAPTER – V
CONCLUSIONS, LIMITATIONS, RECOMMENDATIONS,
EDUCATIONAL IMPLICATIONS AND SUGGESTIONS
FOR FUTURE RESEARCH

5.1 CONCLUSIONS

In the present study, objective wise conclusions have been drawn from the results which are presented below:

Objective 1- To compare the classroom management styles of teachers w.r.t (i) type of school; (ii) school board; (iii) gender of the teacher; (iv) subject of teaching; (v) school size of secondary school students.

- 1) Classroom management styles of teachers are not associated with type of school, subject of teaching and school size of secondary school students.
- 2) PSEB board students have perceived democratic classroom management style of teachers more than CBSE board students.
- 3) Significant differences are not found in the different classroom management styles i.e. authoritarian, laissez-faire, democratic and indifferent for male and female teachers as perceived by students.

Objective 2- To compare the credibility of teachers w.r.t (i) type of school; (ii) gender; (iii) school board; (iv) gender of the teacher; (v) school size; (vi) subject of teaching; (vii) region of secondary school students.

- 1) No significant differences are found on credibility of teachers with respect to type of school, gender of the teacher and subject of teaching.
- 2) The teachers are perceived to be more credible by female students for all the dimensions i.e. competence, goodwill and trustworthiness than male students. Similarly for **English teachers**, female students have perceived them to be more **competent** than male students. Among **Mathematics teachers**, female students have perceived them to be more credible on **goodwill and trustworthiness** than male students. Among **Science teachers**, female

students have perceived them to be more credible on **competence and trustworthiness** than male students.

- 3) PSEB board students have perceived goodwill and trustworthiness dimensions of credibility of teachers more than CBSE board students.
- 4) Students studying in small schools have perceived credibility of teachers (competence, goodwill & trustworthiness) more than students studying in large schools.
- 5) Students from Majha and Malwa region have perceived goodwill of their teachers more than students from Doaba region.

Objective 3- To compare the institutional support provided to students w.r.t (i) gender; (ii) type of school; (iii) school board; (iv) school size; (v) region of secondary school students.

- 1) Female students have perceived academic support, non-academic support and institutional facilities provided by the schools more than male students.
- 2) Government school students have perceived non-academic support more than private school students.
- 3) Private school students have perceived institutional facilities more than government school students.
- 4) PSEB board students have perceived academic support, non-academic support and the facilities related to classrooms with platforms, adequate spacing and ventilation provided by the schools more than CBSE board students.
- 5) CBSE board students have perceived library facilities and comfort in classrooms provided by the schools more than PSEB board students.
- 6) Students from small schools have perceived academic support, non-academic support and the facilities related to classrooms with platforms, adequate spacing and ventilation provided by the schools more than students from large schools.
- 7) Students from large schools have perceived library facilities and comfort in classrooms provided by the schools more than students from small schools.
- 8) Students from Majha and Malwa region have perceived academic support, motivation provided by the schools and services and resources provided by the

school to promote and facilitate their physical, social and emotional development more than students from Doaba region.

- 9) Students from Majha region have perceived help, advice, guidance, suggestions and useful information provided by schools more than students from Doaba region.
- 10) Students from Majha region have perceived the facilities related to classrooms with platforms, adequate spacing and ventilation provided by the schools more than students from Malwa region.
- 11) Students from Malwa region have perceived library facilities and comfort in classrooms provided by schools more than students from Majha region.

Objective 4- To compare the achievement motivation and leadership development w.r.t (i) type of school; (ii) school board; (iii) type of family; (iv) gender; (v) school size; (vi) locale; (vii) region; (viii) family size of secondary school students.

Achievement Motivation

- 1) No significant differences are found on the achievement motivation of students with respect to type of family and family size.
- 2) Private school students are having better attitude towards academics than government school students.
- 3) CBSE board students are having better attitude towards academics than PSEB board students.
- 4) PSEB board students have more interest towards sports and dramatics than CBSE board students.
- 5) Female students are having higher achievement motivation than male students. It is also found true for work methods, academic challenge, attitude towards education and teachers, and general interests dimensions of achievement motivation.
- 6) Small school students have more interest towards sports and dramatics than large school students.
- 7) Large school students have better viewpoint about life, and perception about using the leisure time constructively than small school students.

- 8) Urban area students have better viewpoint about life, and perception about using the leisure time constructively than rural area students.
- 9) Students from Malwa and Doaba region are having better attitude towards academics than students from Majha region.
- 10) Students from Majha and Malwa region have better viewpoint about life, and perception about using the leisure time constructively than students from Doaba region.

Leadership Development

- 11) Private school students are more self-aware of their beliefs, values, attitudes and emotions that motivate them to take action than government school students.
- 12) Government school students are more proficient in working with others in a common effort, sharing responsibility, authority and accountability than private school students.
- 13) PSEB board students are having more consciousness of self (are more self-aware of their beliefs, values, attitudes and emotions that motivate them to take action); congruence (act more in ways that are consistent with their values and beliefs and they think, feel and behave with consistency, genuineness, authenticity and honesty towards others); commitment (are having more energy to serve the group and its goals, and can invest significantly in terms of intensity and duration in an idea or person); common purpose (have exhibited highly on shared aims and values, and work for building groups' vision); collaboration (are more proficient in working with others in a common effort, sharing responsibility, authority and accountability); controversy with civility (have recognized the fundamental realities of creative effort more); and citizenship (are better at recognizing that members of communities are interdependent and not independent) than CBSE board students.
- 14) Students from joint families are having more consciousness of self (are more self-aware of their beliefs, values, attitudes and emotions that motivate them to take action); commitment (are having more energy to serve the group and its goals, and can invest significantly in terms of intensity and duration in an idea or person); and collaboration (are more proficient in working with others in a

common effort, sharing responsibility, authority and accountability) than students from nuclear families.

- 15) Female students are having more consciousness of self (are more self-aware of their beliefs, values, attitudes and emotions that motivate them to take action); congruence (act more in ways that are consistent with their values and beliefs and they think, feel and behave with consistency, genuineness, authenticity and honesty towards others); commitment (are having more energy to serve the group and its goals, and can invest significantly in terms of intensity and duration in an idea or person); common purpose (have exhibited highly on shared aims and values, and work for building groups' vision); collaboration (are more proficient in working with others in a common effort, sharing responsibility, authority and accountability); citizenship (are better at recognizing that members of communities are interdependent and not independent); and change (have exhibited better understanding of the importance of making the world and society a better place for oneself and others) than male students.
- 16) Small school students are having more congruence (act more in ways that are consistent with their values and beliefs and they think, feel and behave with consistency, genuineness, authenticity and honesty towards others); commitment (are having more energy to serve the group and its goals, and can invest significantly in terms of intensity and duration in an idea or person); collaboration (are more proficient in working with others in a common effort, sharing responsibility, authority and accountability); controversy with civility (have recognized the fundamental realities of creative effort more); and citizenship (are better at recognizing that members of communities are interdependent and not independent) than large school students.
- 17) Rural area students are having more congruence (act more in ways that are consistent with their values and beliefs and they think, feel and behave with consistency, genuineness, authenticity and honesty towards others); commitment (are having more energy to serve the group and its goals, and can invest significantly in terms of intensity and duration in an idea or person); common purpose (have exhibited highly on shared aims and values, and work for building groups' vision); collaboration (are more proficient in working

with others in a common effort, sharing responsibility, authority and accountability); controversy with civility (have recognized the fundamental realities of creative effort more); and citizenship (are better at recognizing that members of communities are interdependent and not independent) than urban area students.

- 18) Students from Majha region are having more congruence (act more in ways that are consistent with their values and beliefs, and they think, feel and behave with consistency, genuineness, authenticity and honesty towards others); common purpose (have exhibited highly on shared aims and values, and work for building groups' vision); controversy with civility (have recognized the fundamental realities of creative effort i.e. differences in viewpoint & differences must be aired openly with civility more); citizenship (are better at recognizing that members of communities are interdependent and not independent); and change (have exhibited better understanding of the importance of making the world and society a better place for oneself and others) than students from Doaba region.
- 19) Students from Majha region are having more common purpose (have exhibited highly on shared aims and values, and work for building groups' vision); and controversy with civility (have recognized the fundamental realities of creative effort i.e. differences in viewpoint & differences must be aired openly with civility more) than students from Malwa region.
- 20) Students from Malwa region are having more congruence (act more in ways that are consistent with their values and beliefs, and they think, feel and behave with consistency, genuineness, authenticity and honesty towards others); and commitment (are having more energy to serve the group and its goals, and can invest significantly in terms of intensity and duration in an idea or person) than students from Doaba region.
- 21) Students belonging to the family size of 7 members have recognised the fundamental realities of creative effort (a. differences in viewpoint & b. differences must be aired openly with civility) more than students belonging to the family size of 4, 5 and 6 members.

Objective 5- To study the inter-relationship between (i) classroom management styles and institutional support provided to the students; (ii) credibility of teachers and institutional support provided to the students; (iii) classroom management styles and credibility of teachers.

- 1) The correlation between authoritarian classroom management style and institutional support is found to be significant and negative which means that more the teachers exhibit authoritarian classroom management style as perceived by students, the less the institutional support. Vice-versa wherein less and ill equipped institutional support are there in schools, the teachers are more likely to exhibit authoritarian classroom management style.
- 2) The correlation between indifferent classroom management style and institutional support is also found to be significant and negative which means that more the teachers exhibit indifferent classroom management style as perceived by students, the less the institutional support. Vice-versa wherein less and ill equipped institutional support are there in schools, the teachers are more likely to exhibit indifferent classroom management style.
- 3) The correlation between laissez-faire classroom management style and institutional support is found to be significant and positive which means that more the teachers exhibit laissez-faire classroom management style as perceived by students, the more the institutional support. Vice-versa wherein more of institutional support is provided in schools, the teachers are more likely to exhibit laissez-faire classroom management style.
- 4) The correlation between democratic classroom management style and institutional support is also found to be significant and positive which means that more the teachers exhibit democratic classroom management style as perceived by students, the more the institutional support. Vice-versa wherein more of institutional support is provided in schools, the teachers are more likely to exhibit democratic classroom management style.
- 5) The correlation between credibility of teachers and institutional support provided to students in schools is found to be significant and positive which means that more the teachers are perceived as credible by the students, the more the institutional support. Vice-versa wherein more of the institutional

support is provided in schools, the teachers are perceived as more credible by the students.

- 6) The correlation between authoritarian classroom management style and credibility of teachers is found to be significant and negative which means that students who perceive their teachers as authoritarian do not perceive their teachers as credible. Meaning thereby, the more the teachers act as authoritarian, the lesser the students perceive them as credible.
- 7) The correlation between indifferent classroom management style and credibility of teachers is also found to be significant and negative which means that students who perceive their teachers as indifferent do not perceive their teachers as credible. Meaning thereby, the more the teachers act as indifferent, the lesser the students perceive them as credible.
- 8) The correlation between laissez-faire classroom management style and credibility of teachers is found to be significant and positive which means that students who perceive their teachers as laissez-faire also perceive their teachers as credible. Meaning thereby, more the teachers act as laissez-faire, the more the students perceive them as credible.
- 9) The correlation between democratic classroom management style and credibility of teachers is found to be significant and positive which means that students who perceive their teachers as democratic also perceive their teachers as credible. Meaning thereby, more the teachers act as democratic, the more the students perceive them as credible.

Objective 6- To study the inter-relationship between achievement motivation of students, and (i) classroom management styles; (ii) credibility of teachers; (iii) institutional support.

- 1) The correlation between authoritarian classroom management style and achievement motivation of students is found to be significant and negative which means that students who perceive their teachers' classroom management style as authoritarian tend to have low achievement motivation and vice versa.
- 2) The correlation between indifferent classroom management style and achievement motivation of students is also found to be significant and negative

which means that students who perceive their teachers' classroom management style as indifferent tend to have low achievement motivation and vice versa.

- 3) The correlation between laissez-faire classroom management style and achievement motivation of students is found to be significant and positive which means that students who perceive their teachers' classroom management style as laissez-faire tend to have high achievement motivation and vice versa.
- 4) The correlation between democratic classroom management style and achievement motivation of students is found to be significant and positive which means that students who perceive their teachers' classroom management style as democratic tend to have high achievement motivation and vice versa.
- 5) The correlation between credibility of teachers and achievement motivation of students is found to be significant and positive which means that students who perceive their teachers as credible tend to have high achievement motivation and vice versa.
- 6) The correlation between institutional support and achievement motivation of students is found to be significant and positive which means that students who perceive more institutional support tend to have high achievement motivation and vice versa.

Objective 7- To study the inter-relationship between leadership development of students, and (i) classroom management styles; (ii) credibility of teachers; (iii) institutional support.

- 1) The correlation between authoritarian classroom management style and leadership development of students is found to be significant and negative which means that students who perceive their teachers' classroom management style as authoritarian tend to have low leadership development and vice versa.
- 2) The correlation between laissez-faire classroom management style and leadership development of students is found to be significant and positive which means that students who perceive their teachers' classroom

management style as laissez-faire tend to have high leadership development and vice versa.

- 3) The correlation between democratic classroom management style and leadership development of students is found to be significant and positive which means that students who perceive their teachers' classroom management style as democratic tend to have high leadership development and vice versa.
- 4) The correlation between credibility of teachers and leadership development of students is found to be significant and positive which means that students who perceive their teachers as credible tend to have high leadership development and vice versa.
- 5) The correlation between institutional support and leadership development of students is found to be significant and positive which means that students who perceive more institutional support tend to have high leadership development and vice versa.

Objective 8- To study the inter-relationship between achievement motivation and leadership development of students.

The correlation between achievement motivation and leadership development of students in secondary schools is found to be significant and positive which means that students who have high achievement motivation tend to have high leadership development and vice versa.

Objective 9- To predict the role of classroom management styles, credibility of teachers and institutional support on the achievement motivation of students.

- 1) Authoritarian classroom management style, credibility of teachers and institutional support have significant impact on the achievement motivation of secondary school students. It is concluded that when teachers' exhibit authoritarian classroom management style, it contributes negatively to the achievement motivation of students whereas credibility of teachers and institutional support contribute positively to the achievement motivation of students.

- 2) Laissez-faire classroom management style, credibility of teachers and institutional support have significant impact on the achievement motivation of secondary school students.
- 3) Democratic classroom management style and institutional support have significant impact on the achievement motivation of secondary school students. However, credibility of teachers is not predicting the achievement motivation of the students which means that credibility of teachers has no significant impact on achievement motivation of secondary school students.
- 4) Indifferent classroom management style, credibility of teachers and institutional support have significant impact on the achievement motivation of secondary school students. It is concluded that when teachers' exhibit indifferent classroom management style, it contributes negatively to the achievement motivation of students whereas credibility of teachers and institutional support contribute positively to the achievement motivation of students.

Objective 10- To predict the role of classroom management styles, credibility of teachers and institutional support on the leadership development of students.

- 1) Institutional support has significant impact on the leadership development of secondary school students. However, authoritarian classroom management style and credibility of teachers are not predicting the leadership development of the students which means that authoritarian classroom management style and credibility of teachers have no significant impact on leadership development.
- 2) Institutional support has significant impact on the leadership development of secondary school students. However, laissez-faire classroom management style and credibility of teachers are not predicting the leadership development of the students which means that laissez-faire classroom management style and credibility of teachers have no significant impact on leadership development.
- 3) Institutional support has significant impact on the leadership development of secondary school students. However, democratic classroom management style and credibility of teachers are not predicting the leadership development of the

students which means that democratic classroom management style and credibility of teachers have no significant impact on leadership development.

- 4) Institutional support has significant impact on the leadership development of secondary school students. However, indifferent classroom management style and credibility of teachers are not predicting the leadership development of the students which means that indifferent classroom management style and credibility of teachers have no significant impact on leadership development.

5.2 LIMITATIONS

The limitations of the study are those characteristics of design or methodology that influenced the explanation or interpretation of the results. The researcher found the following limitations for the present study:

- 1) Lack of cooperation from the principals of schools in the process of data collection was the big obstacle and it took more time than required for data collection.
- 2) Number of male students was found to be less as compared to female students.
- 3) The researcher collected the data from senior secondary schools as well as secondary schools. With the increase in the number of the classes, the strength of the school also gets increased. Moreover, senior secondary schools function with more infrastructure in terms of labs and also more number of specialised teachers. So, the institutional support perceived by the students could not be yielding similar perceptions.

5.3 RECOMMENDATIONS

On the basis of the results of the current study the key recommendations are:

- 1) It has been found that if the teachers exhibit democratic classroom management style, it will increase the institutional support. So, teachers are required to learn the techniques of democratic classroom management style in order to enhance the institutional support provided by schools for students. Similar results are reported for laissez-faire classroom management style and institutional support.

- 2) The study has reported that teachers exhibiting authoritarian classroom management style tend to decrease the institutional support provided by schools for students. Therefore, there is a need that teachers avoid using the techniques of authoritarian classroom management style. Similar results are reported for indifferent classroom management style and institutional support.
- 3) The result has indicated that when students perceive their teachers' as credible, it enhances the institutional support for students. So, focus should be laid on establishing credibility.
- 4) It has been found that the teachers should be discouraged to exhibit authoritarian classroom management style, so that it cannot harm their credibility. Similar results are reported for indifferent classroom management style and credibility of teachers.
- 5) The study recommends that teachers can be encouraged to learn the techniques of democratic classroom management style as it helps to establish and maintain their high credibility. Similar results are reported for laissez-faire classroom management style and teacher credibility.
- 6) Students tend to have low achievement motivation when their teachers' act as an authoritarian or indifferent teacher, thus, these two styles must be discouraged.
- 7) The study recommends for the use of democratic and laissez-faire classroom management style as both styles increase the achievement motivation of students.
- 8) As institutional support tend to increase the achievement motivation of students, therefore schools should attempt to provide good institutional support to their students.
- 9) It is recommended that teachers should establish their credibility as it contributes positively to the achievement motivation of students.
- 10) The results indicated that teachers should not exhibit authoritarian classroom management style as it lowers the leadership development of students.
- 11) Democratic and laissez-faire classroom management styles increase the leadership development of students, therefore, the study recommends the use of both these styles.

- 12) The study recommends that high credibility of teachers increase the leadership development of students, so teachers should establish their credibility.
- 13) Institutional support increases the leadership development of students, therefore schools should provide good institutional support to their students.
- 14) The results reported that achievement motivation and leadership development of students are significantly and positively related with each other, so efforts must be done to increase the achievement motivation of students because it will further their leadership development and vice-versa.
- 15) It is indicated that authoritarian and indifferent classroom management styles have negative impact on the achievement motivation of students, whereas democratic and laissez-faire classroom management styles, credibility of teachers and institutional support contribute positively to students' achievement motivation. Therefore, teachers should be discouraged to use authoritarian and indifferent classroom management styles.
- 16) The results reported that institutional support contributes positively to the achievement motivation and leadership development of secondary school students. Hence, the study recommends that schools should provide good institutional support to students in order to enhance their leadership development and achievement motivation.

5.4 EDUCATIONAL IMPLICATIONS

One of the important implications regarding the leadership development among secondary school students is that the institutional support predicts the leadership development among school students. Therefore, schools should focus on providing the institutional support adequately which includes academic support, non-academic support and institutional facilities to nurture leadership among students. The academic advising, learning support, informational support, care and encouragement, learning environment, basic infrastructure and extended facilities together form the institutional support and should be given adequately to students. If the teachers advise their students, provide them supplementary help and encouragement for teamwork to succeed in academics, and the school provides useful information, guidance, motivation, proper infrastructure, facilities and learning environment for students' progress, it will automatically develop leadership

values and skills among students. The institutional support also nurtures high achievement motivation among school students. Therefore, government should work for ensuring and schools should work for providing good institutional support. The research has contributed that private schools should provide useful information, guidance and motivation to their students; government schools should improve infrastructure, facilities and learning environment for students' progress; CBSE board schools should work on providing supplementary help, advice, and encouragement for teamwork, useful information, guidance and motivation to their students for their success; PSEB board schools should improve extended facilities for students; large schools should focus on providing academic support and non-academic support adequately to their students; and small schools should improve extended facilities for students; schools in Doaba region of Punjab should focus on providing the adequate academic and non-academic support for students; schools in Malwa region of Punjab should maintain good learning environment to facilitate students; and schools in Majha region of Punjab should give better extended facilities to students.

Another important implication regarding the achievement motivation among secondary school students is that if the teachers exhibit democratic and laissez-faire classroom management styles, the achievement motivation of students is going to be high. Therefore, it is suggested to the policy makers to train the teachers to maintain discipline in the classroom, to form relationship with students, to establish rules and to provide classroom learning environment democratically and laissez-fairly. This will help in making the students highly motivated and achievement oriented. The research has highlighted that teachers from CBSE board should employ democratic classroom management style. The research has also contributed that authoritarian and indifferent classroom management styles of teachers are playing a negative role in the achievement motivation of the students, therefore, teachers should not follow these both styles. The study has implied that government should focus on recruiting teachers after proper mechanisms to evaluate the teachers on goodwill, competence and trustworthiness. Since, these components are perceived by students to play a positive role in their achievement motivation which will ultimately help in developing high achievers in the society. Teachers can be trained by providing

workshops on life skills focusing on developing competence, goodwill and trustworthiness. The research has contributed that teachers should behave in a caring, competent and honest manner to build their credibility for male students; teachers from CBSE board should work for improving their goodwill and trustworthiness; teachers from large schools should focus on improving their competence, goodwill and trustworthiness; and teachers from Doaba region should improve their goodwill for the progress of students.

The study has highlighted that where institutional support is not provided adequately, the teachers are going to exhibit authoritarian and indifferent classroom management styles which further make the teachers less credible, thus it will decrease the achievement motivation of students. If the institutional support is good, the teachers are likely to exhibit democratic and laissez-faire classroom management styles which further make the teachers more credible, thus it will ultimately increase the achievement motivation and leadership development among school students.

It has been also found that those students, who have high achievement motivation, also consider themselves good on leadership development and vice versa. The research has contributed that government schools should focus on improving students' attitude towards academics; PSEB board schools should focus on improving students' attitude towards academics; CBSE board schools should focus on creating students' interest towards sports and dramatics; schools should focus on improving rural area students' general viewpoints about life; schools should focus on improving the achievement motivation of male students; schools in Majha region of Punjab should focus on improving students' attitude towards academics; and schools in Doaba region of Punjab should focus on improving the students' general viewpoints about life. The research has also highlighted that government schools should create self-awareness among students; private schools should develop collaboration among students; CBSE board schools should inculcate the qualities of self-awareness, consistency and genuineness in values and behaviour, commitment, collaboration, citizenship, sharing of aims, tackling the controversy with respect among students; nuclear families should encourage self-awareness, commitment and collaboration among their children; schools should try

to develop self-awareness, commitment, collaboration, citizenship, sharing of aims, consistency and genuineness in values and behaviour, and understanding of making the society a better place among male students; schools should develop the qualities of commitment, collaboration, citizenship, tackling the controversy with respect, and consistency and genuineness in values and behaviour and sharing of aims among urban area students; schools in Doaba region of Punjab should focus on inculcating the values of citizenship, commitment, consistency and genuineness in values and behaviour, sharing of aims, tackling the controversy with respect and understanding of making the society a better place among their students; and schools in Malwa region of Punjab should focus on inculcating the values of sharing of aims and tackling the controversy with respect among their students.

5.5 SUGGESTIONS FOR FUTURE RESEARCH

Based on this research the following suggestions have been made for future research:

- 1) The present study was confined to Punjab State only and still very few studies have been conducted on classroom management styles, credibility of teachers, institutional support and leadership development in India. Hence, the generalisability of the results is restricted. It is suggested that replica studies can be taken up choosing the sample from other states of India also.
- 2) As validation of the scales was done on the sample of Punjab state only, it is suggested that validation of the scales should be done by taking the sample from other states of India too.
- 3) In this study, institutional support has been found as one of the major independent variable which impacted the leadership development of secondary school students positively, future studies can be conducted on college and university students with more extensive survey of different types of support and facilities provided and required in the institutions.
- 4) The future research can be done on studying the relationship of classroom management styles and credibility of teachers with other student variables i.e. affective learning, academic performance, emotional well being, study habits, student misbehaviour, learning styles, classroom discipline problems, student

skills and interest, and teacher variables i.e. teaching strategies, teaching approaches, teacher immediacy etc.

- 5) In the future, experimental research can be conducted on classroom management styles and students' learning outcomes.

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APPENDIX – I

SECTION – A

Please fill in the following information:						
Name:						
Class:	9 th <input type="checkbox"/>	10 th <input type="checkbox"/>	Gender:	Male <input type="checkbox"/>	Female <input type="checkbox"/>	
Age:	13yrs <input type="checkbox"/>	14yrs <input type="checkbox"/>	15yrs <input type="checkbox"/>	16yrs <input type="checkbox"/>	17yrs <input type="checkbox"/>	
Residential address:	Rural <input type="checkbox"/>	Urban <input type="checkbox"/>	Type of Family:	Joint <input type="checkbox"/>	Nuclear <input type="checkbox"/>	
Family Size:	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>
Family Income:	0-5000 <input type="checkbox"/>	6000-10000 <input type="checkbox"/>	11000-15000 <input type="checkbox"/>			
(per month)	16000-20000 <input type="checkbox"/>	21000-25000 <input type="checkbox"/>	26000-30000 <input type="checkbox"/>			
	31000 & above <input type="checkbox"/>					
Name of School:						
School Address:						
Type of school:	Govt. <input type="checkbox"/>	Private <input type="checkbox"/>	School Board:	PSEB <input type="checkbox"/>	CBSE <input type="checkbox"/>	

SECTION-B

Please Fill in the following information:	
Name of the teacher:	Qualification of the teacher:
Gender of the teacher:	Age of the teacher:
Subject:	Teaching experience: School Size:

APPENDIX – II

AMS (n-Ach)

Instructions: This scale consists of a number of statements and for every statement, the possible responses are divided into five categories which are: Always, Frequently, Sometimes, Rarely and Never. Read each statement carefully and put a tick under the category which, in your opinion, best expresses your feelings about the statement.

S.N.	Statement	Always	Frequently	Some times	Rarely	Never
1	I pay full attention to the work in the class.	A	F	S	R	N
2	I work hard for hours together to be successful in whatever I undertake.	A	F	S	R	N
3	I aspire to get excellent results in all academic competitions.	A	F	S	R	N
4	I regularly take down notes in the class and complete my assignments.	A	F	S	R	N
5	I plan to study carefully all the year round in an effort to get good marks in all the subjects in all the tests.	A	F	S	R	N
6	I believe in work first and play later.	A	F	S	R	N
7	I do a lot of preparation at home for the next day's work in the class.	A	F	S	R	N
8	It is true that my teachers think of me as a sincere and hard working student.	A	F	S	R	N
9	I try to get associated with top most persons in the field of my choice.	A	F	S	R	N
10	My friends consider me dull and shirker.*	A	F	S	R	N
11	I set standards for myself and then strive to achieve them.	A	F	S	R	N
12	I wish to specialize and become top most in the field of my liking.	A	F	S	R	N
13	I like to experiment and create new things and surprise people.	A	F	S	R	N
14	On getting low marks, I feel disappointed and determine to work hard to do better next time.	A	F	S	R	N

* Negative item

S.N.	Statement	Always	Frequently	Some times	Rarely	Never
15	I think, I find my lessons meaningful and interesting.	A	F	S	R	N
16	I agree that the present course of my study will help making my future life a success.	A	F	S	R	N
17	I think my teachers are competent in their work.	A	F	S	R	N
18	I try my utmost to please my teacher through work and not through flattery.	A	F	S	R	N
19	I wish to carry my mission forward inspite of facing a lot of criticism.	A	F	S	R	N
20	I feel very much frustrated if I do not get a chance to complete in the field of my choice.	A	F	S	R	N
21	I am ready to leave the job half done and try a new one.*	A	F	S	R	N
22	I prefer to go to a party rather than prepare for an examination next week.*	A	F	S	R	N
23	I think, it is better to gossip away in the canteen than to attend the classes.*	A	F	S	R	N
24	When the teacher is teaching, I like to read stories/novels/comics or make cartoons in the class.*	A	F	S	R	N
25	The school/college haunts me and I want to leave it at the very first opportunity.*	A	F	S	R	N
26	I like to create nuisance in the class and annoy the teacher.*	A	F	S	R	N
27	I like to compete in dramatics.	A	F	S	R	N
28	I have a strong desire to be a champion in games/sports/athletics.	A	F	S	R	N
29	I have tried to get in the sports team of my school/college, to represent my team in other states or countries.	A	F	S	R	N

* Negative item

S.N.	Statement	Always	Frequently	Some times	Rarely	Never
30	I believe sports develop initiative, leadership and discipline.	A	F	S	R	N
31	I love to read more and more to find unknown regions of knowledge.	A	F	S	R	N
32	I like to ask questions regarding every information given in tables and charts in the books rather than leave them as such and read further.	A	F	S	R	N
33	I think of life to be an intellectual challenge.	A	F	S	R	N
34	I love to have some adventure in my leisure hour.	A	F	S	R	N

APPENDIX – III

SRLS-R2

Instructions: Indicate your agreement or disagreement with each of following statements by ticking the category that most closely represents your opinion about that statement. Tick from the following alternatives: “Strongly Agree”, “Agree”, “Neither Agree nor Disagree”, “Disagree”, and “Strongly Disagree”.

S.N.	Statement	Strongly agree	Agree	Neither Agree nor Disagree	Disagree	Strongly disagree
1	I am open to others’ ideas.	SA	A	NA/ND	D	SD
2	Creativity can come from conflict.	SA	A	NA/ND	D	SD
3	I value differences in others.	SA	A	NA/ND	D	SD
4	I am able to articulate my priorities.	SA	A	NA/ND	D	SD
5	Hearing differences in opinions enriches my thinking.	SA	A	NA/ND	D	SD
6	I have low self-esteem.*	SA	A	NA/ND	D	SD
7	I struggle when group members have ideas that are different from mine.*	SA	A	NA/ND	D	SD
8	Transition makes me uncomfortable.*	SA	A	NA/ND	D	SD
9	I am usually self-confident.	SA	A	NA/ND	D	SD
10	I am seen as someone that works well with others.	SA	A	NA/ND	D	SD
11	Greater harmony can come out of disagreements.	SA	A	NA/ND	D	SD
12	I am comfortable initiating new ways of looking at things.	SA	A	NA/ND	D	SD
13	My behaviors are congruent with my beliefs.	SA	A	NA/ND	D	SD
14	I am committed to a collective purpose in those groups to which I belong.	SA	A	NA/ND	D	SD
15	It is important to develop a common direction in a group in order to get anything done.	SA	A	NA/ND	D	SD

* Negative item

S.N.	Statement	Strongly agree	Agree	Neither Agree nor Disagree	Disagree	Strongly disagree
16	I respect opinions other than my own.	SA	A	NA/ND	D	SD
17	Change brings new life to an organization.	SA	A	NA/ND	D	SD
18	The things about which I feel passionate have priority in my life.	SA	A	NA/ND	D	SD
19	I contribute to the goals of the group.	SA	A	NA/ND	D	SD
20	There is energy in doing something a new way.	SA	A	NA/ND	D	SD
21	I am uncomfortable when someone disagrees with me.*	SA	A	NA/ND	D	SD
22	I know myself pretty well.	SA	A	NA/ND	D	SD
23	I am willing to devote time and energy to things that are important to me.	SA	A	NA/ND	D	SD
24	I stick with others through the difficult times.	SA	A	NA/ND	D	SD
25	When there is a conflict between two people, one will win and the other will lose.*	SA	A	NA/ND	D	SD
26	Change makes me uncomfortable.*	SA	A	NA/ND	D	SD
27	It is important to me to act on my beliefs.	SA	A	NA/ND	D	SD
28	I am focused on my responsibilities.	SA	A	NA/ND	D	SD
29	I can make a difference when I work with others on a task.	SA	A	NA/ND	D	SD
30	I actively listen to what others have to say.	SA	A	NA/ND	D	SD
31	I think it is important to know other people's priorities.	SA	A	NA/ND	D	SD
32	My actions are consistent with my values.	SA	A	NA/ND	D	SD
33	I believe I have responsibilities to my community.	SA	A	NA/ND	D	SD
34	I could describe my personality.	SA	A	NA/ND	D	SD
35	I have helped to shape the mission of a group.	SA	A	NA/ND	D	SD

* Negative item

S.N.	Statement	Strongly agree	Agree	Neither Agree nor Disagree	Disagree	Strongly disagree
36	New ways of doing things frustrate me.*	SA	A	NA/ND	D	SD
37	Common values drive an organization.	SA	A	NA/ND	D	SD
38	I give time to make a difference for someone else.	SA	A	NA/ND	D	SD
39	I work well in changing environments.	SA	A	NA/ND	D	SD
40	I work with others to make my communities better places.	SA	A	NA/ND	D	SD
41	I can describe how I am similar to other people.	SA	A	NA/ND	D	SD
42	I enjoy working with others towards common goals.	SA	A	NA/ND	D	SD
43	I am open to new ideas.	SA	A	NA/ND	D	SD
44	I have the power to make a difference in my community.	SA	A	NA/ND	D	SD
45	I look for new ways to do something.	SA	A	NA/ND	D	SD
46	I am willing to act for the rights of others.	SA	A	NA/ND	D	SD
47	I participate in activities that contribute to the common good.	SA	A	NA/ND	D	SD
48	Others would describe me as a cooperative group member.	SA	A	NA/ND	D	SD
49	I am comfortable with conflicts.	SA	A	NA/ND	D	SD
50	I can identify the differences between positive and negative change.	SA	A	NA/ND	D	SD
51	I can be counted on to do my part.	SA	A	NA/ND	D	SD
52	Being seen as a person of integrity is important to me.	SA	A	NA/ND	D	SD
53	I follow through on my promises.	SA	A	NA/ND	D	SD
54	I hold myself accountable for responsibilities I agree to.	SA	A	NA/ND	D	SD
55	I believe I have a civic responsibility to the greater public.	SA	A	NA/ND	D	SD

* Negative item

S.N.	Statement	Strongly agree	Agree	Neither Agree nor Disagree	Disagree	Strongly disagree
56	Self-reflection is difficult for me.*	SA	A	NA/ND	D	SD
57	Collaboration produces better results.	SA	A	NA/ND	D	SD
58	I know the purpose of the groups to which I belong.	SA	A	NA/ND	D	SD
59	I am comfortable expressing myself.	SA	A	NA/ND	D	SD
60	My contributions are recognized by others in the groups I belong to.	SA	A	NA/ND	D	SD
61	I work well when I know the collective values of a group.	SA	A	NA/ND	D	SD
62	I share my ideas with others.	SA	A	NA/ND	D	SD
63	My behaviors reflect my beliefs.	SA	A	NA/ND	D	SD
64	I am genuine.	SA	A	NA/ND	D	SD
65	I am able to trust the people with whom I work.	SA	A	NA/ND	D	SD
66	I value opportunities that allow me to contribute to my community.	SA	A	NA/ND	D	SD
67	I support what the group is trying to accomplish.	SA	A	NA/ND	D	SD
68	It is easy for me to be truthful.	SA	A	NA/ND	D	SD

* Negative item

APPENDIX – IV

CMSS

Instructions: Read each statement carefully and tick the category against it which you accept most. Tick from the following alternatives, “Always”, “Often”, “Sometimes”, “Seldom”, and “Never”.

S.N.	Statement	Always	Often	Some times	Seldom	Never
1	My teacher believes that students should follow directions without asking questions even if required.	AL	OF	SO	SE	NE
2	Students are not allowed to express their views freely in the classroom.	AL	OF	SO	SE	NE
3	Students do not express their thoughts when the teacher has a strict facial expression.	AL	OF	SO	SE	NE
4	My teacher does not discuss his/her expectations with students.	AL	OF	SO	SE	NE
5	Students are not allowed to raise their doubts while the teacher is teaching.	AL	OF	SO	SE	NE
6	My teacher does not deal with students fairly.	AL	OF	SO	SE	NE
7	My teacher embarrasses students in the class.	AL	OF	SO	SE	NE
8	My teacher does not support student’s point of view.	AL	OF	SO	SE	NE
9	My teacher forces students to follow his/her instructions without arguing.	AL	OF	SO	SE	NE
10	My teacher forgives students on making inadvertent mistakes.	AL	OF	SO	SE	NE
11	My teacher joins students to participate in extracurricular activities.	AL	OF	SO	SE	NE
12	My teacher allows students to select activity/assignment/project as per their interest and the relevance to the syllabus.	AL	OF	SO	SE	NE
13	My teacher shares his/her experiences with students.	AL	OF	SO	SE	NE
14	My teacher and students enjoy the relationship of mutual respect and trust.	AL	OF	SO	SE	NE

S.N.	Statement	Always	Often	Some times	Seldom	Never
15	My teacher believes that students learn best when they get freedom to do comfortably.	AL	OF	SO	SE	NE
16	Students' opinions are accepted in the classroom.	AL	OF	SO	SE	NE
17	My teacher treats students as his friends.	AL	OF	SO	SE	NE
18	My teacher believes in structured classroom setting (assigned seating in rows).	AL	OF	SO	SE	NE
19	My teacher believes in a conducive atmosphere for learning in the classroom.	AL	OF	SO	SE	NE
20	My teacher's caring attitude prompts the students to remain disciplined in the class.	AL	OF	SO	SE	NE
21	My teacher holds discussion with students in the classroom to solve their problems.	AL	OF	SO	SE	NE
22	My teacher welcomes questions from students.	AL	OF	SO	SE	NE
23	My teacher boosts students to do better academically when they do not perform well.	AL	OF	SO	SE	NE
24	My teacher praises good manners of students.	AL	OF	SO	SE	NE
25	My teacher creates interest for learning by encouraging students.	AL	OF	SO	SE	NE
26	My teacher cooperates with students to solve problems in the school.	AL	OF	SO	SE	NE
27	My teacher engages students in enforcement of classroom rules.	AL	OF	SO	SE	NE
28	My teacher considers emotional well-being of students more important than classroom control.	AL	OF	SO	SE	NE
29	My teacher accepts all kinds of students' behavior.	AL	OF	SO	SE	NE
30	My teacher does not care at all to discipline students in the classroom.	AL	OF	SO	SE	NE
31	My teacher does not mind students looking around in classroom and out of windows.	AL	OF	SO	SE	NE
32	My teacher considers the class preparation useless.	AL	OF	SO	SE	NE
33	My teacher doesn't want to impose any rules on students.	AL	OF	SO	SE	NE

APPENDIX – V

TCS

Instructions: On the scale below, indicate your feelings about your teacher. Numbers 1 and 7 indicate a very strong feeling. Numbers 2 and 6 indicate a strong feeling. Numbers 3 and 5 indicate a fairly weak feeling. Number 4 indicates you are undecided.

S.N.	Statement	Very Strong feeling	Strong feeling	Fairly weak feeling	Undecided	Fairly weak feeling	Strong feeling	Very Strong feeling	Statement
1	Inexpert	1	2	3	4	5	6	7	Expert
2	Informed*	1	2	3	4	5	6	7	Uninformed
3	Incompetent	1	2	3	4	5	6	7	Competent
4	Bright*	1	2	3	4	5	6	7	Stupid
5	Cares about me*	1	2	3	4	5	6	7	Doesn't care about me
6	Concerned with me*	1	2	3	4	5	6	7	Not concerned with me
7	Insensitive	1	2	3	4	5	6	7	Sensitive
8	Not understanding	1	2	3	4	5	6	7	Understanding
9	Untrustworthy	1	2	3	4	5	6	7	Trustworthy
10	Honorable*	1	2	3	4	5	6	7	Dishonorable
11	Unethical	1	2	3	4	5	6	7	Ethical
12	Phony	1	2	3	4	5	6	7	Genuine

* Negative item

APPENDIX – VI

IS

Instructions: Indicate your agreement or disagreement with each of following statements by ticking the category from the alternatives: “Strongly Agree”, “Agree”, “Neutral”, “Disagree”, and “Strongly Disagree” that most closely represents your opinion about that statement.

PART-A

S.N.	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	My teachers provide information related to subjects.	SA	A	N	D	SD
2	My teachers provide adequate advice and information for the preparation of examinations.	SA	A	N	D	SD
3	My teachers discuss ideas for assignments, class projects and tests in the classroom.	SA	A	N	D	SD
4	My teachers provide immediate feedback to students for their improvement.	SA	A	N	D	SD
5	My teachers provide detailed remarks about academic achievements of students.	SA	A	N	D	SD
6	My teachers carefully correct my homework.	SA	A	N	D	SD
7	When I perform well in tests, my teachers appreciate me.	SA	A	N	D	SD
8	My teachers encourage students for teamwork.	SA	A	N	D	SD
9	My teachers focus on the understanding of important concepts.	SA	A	N	D	SD
10	My teachers motivate students to ask questions in the classroom.	SA	A	N	D	SD
11	My teachers clarify the concepts which are not understood by students.	SA	A	N	D	SD

PART-B

S.N.	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	A regular schedule of physical fitness is followed in the school.	SA	A	N	D	SD
2	My school provides guidance and counseling to students.	SA	A	N	D	SD
3	My school provides information about jobs and career opportunities.	SA	A	N	D	SD
4	My school provides financial assistance to needy students.	SA	A	N	D	SD
5	My school resolves grievances and complaints of students after a detailed review of the same.	SA	A	N	D	SD
6	My teachers keep the dignity of students.	SA	A	N	D	SD
7	My school encourages students for participation in activities inside the school premises.	SA	A	N	D	SD
8	My teachers motivate students.	SA	A	N	D	SD
9	My teachers show genuine concern for students' development.	SA	A	N	D	SD
10	My teachers spend time with students whenever they need.	SA	A	N	D	SD

PART-C

S.N.	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Classrooms have platforms for the standing of classroom teachers.	SA	A	N	D	SD
2	Classes are overcrowded that hamper students' attention.*	SA	A	N	D	SD
3	Classrooms are well ventilated.	SA	A	N	D	SD
4	The classrooms of my school have adequate seating arrangements.	SA	A	N	D	SD
5	Classrooms are not provided with good blackboard.*	SA	A	N	D	SD
6	Provisions are there for placing of dusters and chinks near the black board.	SA	A	N	D	SD
7	Proper electricity is not available in all classrooms.*	SA	A	N	D	SD
8	Classrooms are not equipped with ceiling fans.*	SA	A	N	D	SD
9	There is well equipped library in my school.	SA	A	N	D	SD
10	I have to wait to receive a book from the library.*	SA	A	N	D	SD

* Negative item

LIST OF PUBLICATION

- 1) Amanpreet Kaur, “A View on Teachers’ Management Style of Students”, *‘Latest Trends in Teacher Education’*, ISBN: 978-93-83911-34-9, SG Publishers, Jalandhar, 2015, pp. 69-73.
- 2) Dr. Vijay Kumar Chechi and Amanpreet Kaur, “Achievement Motivation- A Literature Review”, *Research Guru, Online Journal of Multidisciplinary Subjects*. 2018 Dec Vol. 12, Issue 3, pp. 61-71.

PAPER PRESENTED AT INTERNATIONAL CONFERENCES:

- 1) Amanpreet Kaur and Dr. Vijay Kumar Chechi, “Institutional Support: Role and Types”, 18th APG Meet & International Conference on “Re-envisioning Globalization, Development and New World Order: Perspectives from Developing Countries” held on 27th-28th October, 2017 at Lovely Professional University, Phagwara.
- 2) Amanpreet Kaur and Dr. Vijay Kumar Chechi, “Understanding Leadership and its Development in Education”, International Multi-Stream Conference on Research & Society, held on 29th October, 2017 at Gujranwala Guru Nanak Institute of Management & Technology, Civil Lines, Ludhiana.