TEACHERS SELF EFFICACY AND STUDNETS ACADEMIC ACHIEVEMENT AT SECONDARY SCHOOL LEVEL IN PAKISTAN

Muhammad Gulistan

06-SS/Ph.D (Edu/03)

DEPARTMENT OF EDUCATION
INTERNATIONAL ISLAMIC UNIVERSITY
ISLAMABAD
2015

- Teachers self-efficacy -- School level
- Student academic achievement
- Teacher, student relationship
- Theses

TEACHERS SELF EFFICACY AND STUDNETS ACADEMIC ACHIEVEMENT AT SECONDARY SCHOOL LEVEL IN PAKISTAN

By

Muhammad Gulistan

06-SS/Ph.D (Edu/03)

A thesis submitted in partial fulfillment of
The requirements for the degree of

Doctor of Philosophy

In

Education

DEPARTMENT OF EDUCATION
INTERNATIONAL ISLAMIC UNIVERSITY,
ISLAMABAD
2015

APPROVAL SHEET

Thesis titled **"Teachers Self Efficacy and Students Academic Achievement at Secondary School Level in Pakistan"** submitted by Muhammad Gulistan, Registration No. 06-FSS/PHDEDU/F03 in partial fulfillment for the requirement of PhD degree in Education is accepted by the Department of Education, Faculty of Social Sciences, International Islamic University Islamabad for the award of Ph.D degree in Education.

Viva Voce Committee:

Supervisor: _____
(Prof. Dr. A. R. Saghir)

Internal Examiner : _____
(Prof. Dr. N. B. Jumani)

External Examiner I: _____
(Dr. Fouzia Khurshid)

External Examiner II: _____
(Dr. Ayesha Akber)

Dated:31/03/2015

Chairman _____
Department of Education,
International Islamic University,
Islamabad.

Dean _____
Faculty of Social Sciences,
International Islamic University,
Islamabad.

Dedicated
To

My parents and family members

whose love, patience and

sacrifice proved to be an unfailing

source of inspiration.

ACKNOWLEDGEMENT

All praise be to Almighty Allah, The Cherisher and Sustainer of the worlds, Who guides us from darkness to light. All respects be for His Holy Prophet, Hazrat Muhammad (Peace be upon him) who enabled us to recognize our Creator.

I feel extremely grateful to my supervisor, Professor Dr. A.R. Saghir, for his kind guidance, keen interest, sympathetic attitude, valuable suggestions and encouragement towards the completion of this thesis.

I am extremely thankful to Professor Dr. N. B. Jumani, Head of Education Department, International Islamic University, Islamabad for his kind guidance and cooperation. I am really thankful to my respected teachers Professor Dr. Maqsood Alam Bukhari, Prof. Dr. Brig (R) Allah Buksh Malik, Prof. Dr. S. M. Hassan, and Professor Dr. Khalid Hassan Bukhari for their everlasting guidance during my study workshops and research work.

I would like to express my special thanks to Assistant Professor Dr. Assad Rizvi Department of Education International Islamic University Islamabad for his kind guidance and cooperation in collection of data from Karachi and remote areas of Baluchistan. I also wish to express my thanks to Mr. Mushtaq Ahmad Department, of Statistics Allama Iqbal Open University, Islamabad for his kind guidance and cooperation.

Last but not the least, thanks are also for my family members whose prayers, love, moral support, patience and kind cooperation brought every success in my life.

MUHAMMAD GULISTAN

ABSTRACT

This study explored out the relationship between teachers' self-efficacy and students' academic achievement at secondary school level. The study encompassed teachers' behavior in the classroom environment during teaching learning process. The objectives of the study were: (i). To measure district wise relationship between teachers' self efficacy and students' academic achievement. (ii). To measure district wise relationship between teachers' self-efficacy and students' academic achievement gender wise. and (iii). To measure district wise relationship between teachers' self efficacy and students' academic achievement location wise. The following null hypotheses were formulated: H_0: (1) There is no significant relationship between teachers' self efficacy and students' academic achievement. H_0: (2) There is no significant relationship between teachers' self efficacy and students' academic achievement gender wise in the subject of Mathematics. H_0: (3) There is no significant relationship between teachers' self efficacy and students' academic achievement gender wise in the subject of English. H_0: (4) There is no significant relationship between teachers' self-efficacy and students' academic achievement location wise in the subject of Mathematics. H_0: (5) There is no significant relationship between teachers' self-efficacy and students' academic achievement location wise in the subject of English. The sample of the study consisted of 3072 participants with a break up of 512 teachers and 2560 students from all over the country. The study was delimited to the following levels: (1). The study was delimited to sixteen districts of Pakistan. (2). Only public sector secondary schools were included. To collect teachers' opinions about their teaching self-efficacy, Teacher Sense of Efficacy Scale (long form) developed by Tschannen – Moran and Hoy (2001), was used. The present study involved interval data with two variables i.e. teachers' efficacy scores and

students' academic achievement scores. The Pearson r Product Moment was to measure relationship between both the variables. Major findings and conclusions of the study were drawn accordingly. The correlation between teachers' efficacy scores and students' academic achievement scores were observed highly context specific. Relationship between female teachers' efficacy scores and their related female students' academic achievement scores in the subject of English was found higher as compared to relationship between male English teachers' efficacy and their related male students' academic achievement in the subject of English. Moderate gender differences were observed in the subject of English and Mathematics as well. Location wise differences (rural and urban) in relationship were also recorded. It is therefore, recommended that in teacher training program essentials for development of teachers' self efficacy may be incorporated.

CONTENTS

LIST OF TABLES

LIST OF ABBREVIATIONS

BISE	Board of Intermediate and Secondary Education
NAASP	National Association of Secondary Schools Principals
OFSTED	Office for Standards in Education, Children's Services and skills
S S C	Secondary School Certificate
SES	Social Economic Status
STEBI	Science Teaching Efficacy Beliefs Instrument

LIST OF APPENDICES

CHAPTER 1

INTRODUCTION

The role of classroom teacher is of critical significance in promoting learning. The teacher is the point of contact between the education system and pupil. Medley (1986) stated that the impact of any educational program or innovation on the pupil operates through the pupil's teacher. Thus maximizing teacher effectiveness is a major goal of education. All teachers make some difference in their students' lives. Some teachers consistently have a greater and more positive influence than others. They seem to relate to students' better and to be more successful in helping their students gain meaningful learning from their instruction (Stein, 1988).

For over a century educational researchers have attempted to identify effective teachers. Early research defined effective teachers as those who received high ratings from their superiors. Most of the researchers attempted to link administrative ratings with such traits as teacher's cooperativeness, dependability, emotional stability, expressiveness, forcefulness, judgment, mental alertness, personal magnetism, physical drive and ethical behavior. Coleman et al (1966).

Coleman and colleagues (1966) conducted a study "The Equality of Educational Opportunity". They concluded that Socio Economic Status (SES) of the pupils and community wherein the school was located influenced all other variables in its relationship to students achievement. They found that 75 percent of a student's success in school was as a result of student's socio economic background.

Over the last many years the construct of teacher efficacy has evolved from Rotter's (1966) Locus of Control Theory and Bandura's (1977), (1986) and (1997) Social Cognitive Theory. However, the meaning and measure of teacher efficacy has been the subject of considerable debate among scholars and researchers.

Some educators assumed that Rotter's internal locus of control and Bandura's perceived self-efficacy are the same. Bandura (1977) clarified the difference between these two concepts. Beliefs about one's capability to produce certain actions (perceived self-efficacy) are not the same as beliefs about whether actions affect outcomes (locus of control). Indeed perceived self-efficacy and locus of control bear no empirical relationship with each other. Further perceived self-efficacy is a much stronger predictor of behavior than locus of control.

According to Bandura (1977) self-efficacy has been defined as "a generative capability in which cognitive, social, emotional and behavioral sub skills must be organized and effectively orchestrated to serve innumerable purposes"(p.3). Self-efficacy mediates between an individual's ability and purposive action. Perceived self-efficacy influences the course of action adopted, effort invested, endurance and resilience in the face of obstacles and failures coping and the level of accomplishments. Bandura, (2001) says that self-efficacy is a crucial mechanism in individual agency. He states that planning, forethought which includes outcome expectations, self-evaluation, motivation and self-regulation are crucial to exercising agency.

Research studies show that teachers' sense of efficacy has strong effects upon students' motivation. Students' sense of efficacy is also strongly related to students' academic outcomes such as achievement. Midgley et al. (1989) stated that teachers' sense of efficacy is positively related to teachers' behavior in the classroom. It affects

the effort they put in to teaching, the goals they set, and their level of aspiration. Teachers with a strong sense of efficacy are open to new ideas and more willing to experiment with new methods to better meet the needs of their students. According to Gusky (1988), teachers having high sense of personal teaching efficacy are more likely to show great level of planning and organization. On the other hand, low teacher efficacy leads to low students' efficacy and therein low academic achievement. Teachers' self-perceptions about their capabilities are one of the vital factors that impacts students' performance and academic achievement positively or negatively. Students' achievement really reflects teachers' worth and skills to transmit knowledge and experience for the promotion of students' learning to a desired level. Any educational system is grounded in teachers' capabilities for the quality of instruction.

Teachers' beliefs about their abilities to teach their students in a given situation to a desired level is one of the most prominent factors that impacts the academic achievement level of the learners. Teachers' self-efficacy for teaching their students is the main component that renders central role to implement curriculum. It is an evident fact that the learning quality and academic achievement level of learners greatly impacted the way teachers perceive about their capabilities that reflect their sense of responsibilities for students' learning outcomes.

The major issue in the educational system of Pakistan is to enhance teachers' professional competencies that improve students' learning. The quality of instruction needs to be improved that consequently promotes meaningful learning and academic achievement to a desired level.

The situation mentioned above motivated the researcher to take up research work to find out the relationship between teachers' self-efficacy and students' academic achievement in the examination.

1.1 STATEMENT OF THE PROBLEM

Efficacy of the teachers teaching different subjects is directly related to the performance of their students in the examinations. Over the years the desired results are not achieved in terms of students' performance in the subjects of English and mathematics at secondary level. This is a reflection on teachers' efficacy.

Keeping in mind the profound influence of teachers self-efficacy on students' academic achievement the present study focused on the topic "Teachers self-efficacy and students' academic achievement at secondary level in Pakistan".

Accordingly, the problem under investigation involved an extensive review of related literature. It was followed by identification of sample, preparation and validation of instrument for data collection. The data collected was analyzed using Pearson r Product Moment and report was written.

1.2 OBJECTIVES OF THE STUDY

1. To measure district wise relationship between teachers' self-efficacy and students' academic achievement.
2. To measure district wise relationship between teachers' self-efficacy and students' academic achievement gender wise.
3. To measure district wise relationship between teachers' self-efficacy and students' academic achievement location wise.

1.3 HYPOTHESES OF THE STUDY

The following were the null hypotheses of the study:

Ho_1: There is no significant relationship between teachers' self-efficacy and students' academic achievement.

Ho_2: There is no significant relationship between teachers' self-efficacy and students' academic achievement gender wise in the subject of mathematics.

Ho_3: There is no significant relationship between teachers' self-efficacy and students' academic achievement gender wise in the subject of English.

Ho_4: There is no significant relationship between teachers' self-efficacy and students' academic achievement location wise in the subject of mathematics.

Ho_5: There is no significant relationship between teachers' self-efficacy and students' academic achievement location wise in the subject of English.

1.4 SIGNIFICANCE OF THE STUDY

The study may be helpful for the following categories of the professionals:

1 The study may provide guidelines to the teacher course developers for designing course to promote teachers' effectiveness in terms of teachers' self-efficacy.

2 The study may be useful for teacher training personnel to incorporate effective teaching strategies to build up teacher self-efficacy to enhance their teaching effectiveness.

3 Findings of the study may provide guidance to the teachers regarding the effectiveness of self-efficacy beliefs of teachers in promoting desired learning outcomes. This is likely to have positive impact on enhancement of their self-efficacy.

4 Other researchers doing research work in the field of teacher self-efficacy may quote the data of self-efficacy generated in this study.

5 This study is also likely to inspire future researchers for undertaking research on teachers' self-efficacy and other related aspects from different angles not covered in the present study.

1.5 METHODOLOGY

The study focused upon assessing the self-efficacy beliefs of teachers at secondary school level and their impact on students' academic achievement in Pakistan. The study involved to measure teachers' efficacy beliefs about their teaching behaviors in the classroom.

1.5.1 Population

Population of the study consisted of the following.

1. All the teachers teaching secondary classes in public sector secondary schools in all provinces of Pakistan. Therein estimated number was 34152.
2. All the students who appeared in the annual 2009 Secondary School Certificate examination of various boards of intermediate and secondary education (BISE) in all the provinces of Pakistan. Therein the estimated number was 308947.

1.5.2 Sample

The sample of the study consisted of 3072 participants with a break up of 512 teachers and 2560 students from all over the country.

1.5.3 Delimitations

In view of time and resource constraints, the study was delimited as under:-

1. The study was delimited to sixteen districts of Pakistan.
2. Only public sector secondary schools were included.

1.5.4 Research Instrument

The latest tool for data collection teacher efficacy tool developed by Tschannen – Moran and Hoy, (2001) was adopted as this tool was very suitable for measuring teachers' beliefs about their personal capabilities in the context of Pakistan. A questionnaire was developed in Urdu Language based on Tschannen – Moran and Hoy, (2001) teacher efficacy scale as above.

Developed tool was then pilot tested and consulted with the supervisor and experts committee. Thus, finalized tool was applied for data collection. Five point likert scale was used to collect the teachers' efficacy beliefs. Student academic achievement scores were obtained from their relevant school record.

1.5.5 Data Collection

The researcher travelled through target area of sample in order to administer the questionnaire to get high rate of return. The researcher personally visited most of the sample areas throughout the country. In order to collect teachers' opinion about their efficacy beliefs the researcher used Tschanner-Moran and Hoy, (2001) efficacy tool that was developed in Urdu for this purpose. Data about students' academic achievement were collected from the relevant school record of the target schools. The data collection particularly from the province of Baluchistan was a challenging task due to unrest in that province. So the researcher had to several attempts to collect data from remote areas of Baluchastan. Data collection particularly from female schools caused a lot of problems.

1.5.6 Data Analysis

In order to draw the conclusion, the collected data were analyzed and presented in the form of tables. To analyze the data, Pearson r Product Moment was used.

Definitions of Terms

The following definitions of terms were used in the present study.

Self-efficacy

Self-efficacy referred to the teachers' score on the instrument given at annex-1.

Academic achievement

Academic achievement referred to students' performance in secondary school certificate examination 2009 conducted by Boards of Intermediate and Secondary Education (BISE) in all four provinces of the country.

Location

Location referred to indicate the area i.e. rural area or urban area; where from sample of the study was taken.

CHAPTER 2

REVIEW OF LITERATURE

Meaning and Nature of Self-Efficacy

The construct of perceived self-efficacy is derived from social cognitive theory that individuals are capable of making use of their agency or purposefully, pursuing courses of action to achieve their goals that appear challenging, rewarding and attainable. Human agency operates in a process called triadic reciprocal causation. Reciprocal causation proposes that human agency results in future behavior as a function of three interrelated forces; influences of environment, human behavior, and internal personal factors like cognitive, affective and biological processes. These three factors influence each other equally. Human individuals are the products of interaction between the external, the internal and individuals' present and past behavior.

The idea of teacher efficacy is grounded in self-efficacy, associated with social cognitive theory. Bandura (1997) defined self-efficacy as "Perceived self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p.3).

Perceived self-efficacy is the origin for individuals' beliefs to act, respond and to make choices. Bandura (1997) explained further as "Perceived self-efficacy is not a measure of the skills one has but a belief about what one can do under different sets of conditions with whatever skills one possesses" (p.37). According to Pajares (1997),

self-efficacy beliefs are very important as connected with the ability to judge human behavior. Due to varying beliefs about capabilities, individuals may operate badly, appropriately or extraordinarily according to different contexts and conditions. According to Pajares (1996), self-efficacy is very important as to consume energy and to maintain continuity while confronting difficulties to perform a particular task. Self-efficacy is different from other self-referent thoughts. Some people have confusion about the nature of teacher-efficacy. They supposed that Rotter's internal locus of control and Bandura's perceived self-efficacy are alike concepts. Bandura (1997) clearly differentiated the concept of self-efficacy from Rotter's internal locus of control. Confidence about one's ability to perform particular actions (perceived self-efficacy) is different from beliefs about whether actions affect outcomes (locus of control). In fact, both the concepts have no empirical relationship between them. Moreover, perceived self-efficacy is a powerful predictor of behavior than locus of control. Rotter's scheme of internal- external locus of control is connected with casual beliefs about the relationship between actions and outcomes and not with self-efficacy. Self-efficacy is the part of larger construct called social cognitive theory. It is further explained in detail in the following section.

2.1 SOCIAL COGNITIVE THEORY

The concept of self-efficacy is the essential part of social cognitive theory presented by Bandura (1977). As Rackley, quoted (Woolfolk, 2003), the social cognitive theory works to make a demarcation between enactive and vicarious learning. Performing actions and experiencing the results is enactive learning. Whereas, learning by observing others is vicarious learning.

According to Bandura (1986, 1997), as quoted by. Rackly the social cognitive theory is based on supposition that human beings are capable of actively organizing their

lives, and not passive to be dependent on environmental factors. As such, people choose to pay attention to actively participate in or ignore the given situation.

Bandura (1997) explained personal agency as "The power to originate actions for given purposes is the key feature of personal agency" (p.3).

Individual human agency comprised of three groups of factors including behavior, environment and personal factors (cognitive, emotion and biological conditions). These three factors as a group were called triadic reciprocal causation by Bandura (1997). Behavior is influenced by many different factors and behavior also, can affect those factors. Internal personal factors (cognition, emotion, etc.) and the environment exert bi-directional causal influence on each other. According to Bandura (1997), "In agentic transactions, people are both producers and products of social systems". As Egger quoted Bandura (2002) social cognitive theory also recognizes proxy agency and collective agency. Proxy agency entails one's dependence on a social organization for resources, expert knowledge and skills. Whereas collective agency refers to group action to accomplish what cannot be done alone. Detail of the sources of self-efficacy discussed in the following section.

2.1.1 Sources of Self-Efficacy

According to Bandura (1995) there are four sources of information that impact self-efficacy, these include mastery experiences, emotional or physiological condition, vicarious experiences and social persuasion.

1. **Mastery Experiences**

According to Woolfolk (2003), as quoted by Rackley in her study, the strong most source of efficacy information is mastery experiences that an individual direct experiences. Efficacy-beliefs are promoted strongly when an individual successfully

accomplishes a given task in a particular context or exhibits behavior or skill, whereas failure of previous performance decreases self-efficacy.

2. **Emotional and Physiological Conditions**

Physiological and emotional conditions such as stress, excitement and so forth impact individuals' beliefs about their capabilities to perform a particular task. According to Bandura (1995) the strength of physical and emotional reactions is not so crucial, as the beliefs of these reactions and understanding them. Individuals' beliefs about their abilities impact the extent to which they experience stress and depression in adverse circumstances and also their motivational standard (A. Bandura, in press). Since anxiety arousal basis on the individuals' beliefs upon their capabilities to control stressing factors, the more strong belief one has upon his or her capabilities more control he or she may display over hardships. Individuals who believe to confront successfully adverse circumstances, they evoke not negative thinking. Conversely, having belief low control over threats offers high anxiety arousal.

As Robin Rackley quoted Pintrich and Schunk (2002) in her study, task related arousal affects self-efficacy beliefs. Individuals who undertake task with managing deficiencies may exhibit worries that lower their efficacy. Whereas, being excited to accomplish the task successfully raises efficacy.

3. **Vicarious Experiences**

Observing others and modeling their behavior assists to shape efficacy beliefs. Seeing others intentional performance particularly perceiving them important impacts self-efficacy. When an individual observes a model doing an action successfully, self-efficacy of the observer increases. On the other hand poor modeling decreases observer's efficacy. According to Tschannen-Moran *et al.* (1998), the more closely observer identifies with the model the greater will be the impact on self-efficacy.

3. Social Persuasion

Social persuasion is another efficacy related source of information. According to Pajares (1997) the effectiveness of verbal comments from significant others though not as powerful source of efficacy information as mastery or vicarious experiences, impact individual's efficacy beliefs. As Egger quoted in her study Bandura (1997), Individual's self-efficacy will be sustained and strengthened if related important persons make real, constructive and fair comments about individual's capabilities to perform successfully. Moreover, positive constructive comments act as a source of encouragement and motivation for an individual to do harder effort to complete the given task. Whereas, negative opinions and unkind comments or doubtful remarks from important others make weaker one's efficacy beliefs (Bandura, 1986). Egger also referred Mulholland & Wallace (2001), In addition to mastery experiences; social persuasion has powerful effects on self-efficacy concepts as found in a study of an elementary science teacher's year.

2.1.2 Teacher Efficacy

Teacher's perception of efficacy is grounded in self-efficacy, directly connected to the process of teaching task. Teachers having high sense of efficacy beliefs perceive themselves capable of teaching to most difficult students successfully. They experiment innovative instructional practices, confront hardships, put harder efforts and invest more time to promote their students' learning. Whereas, less efficacious teachers perceive that they have less impact over their students' learning due to managing deficiencies for students' motivation and achievement. Woolfolk (1998) stated teaching efficacy as "a teacher's belief that he or she can reach even the most difficult students and help them learn" (p.393).

2.2 HISTORICAL OVERVIEW OF TEACHER SELF-EFFICACY

The concept of teacher efficacy came out of two different parts of research. Efficacy research started with the research conducted by Rand Corporation. The researchers produced two items grounded in Rotter's (1966) locus of control theory. Item 1 read, "when it comes right down to it, a teacher really cannot do much because most of a student's motivation and performance depends on his or her home environment" (Armor *et al.*, 1976, P.159). Item 2 read, "If I try really hard, I can get through to teach even the most difficult or unmotivated students" (Armore *et al.* P.160). The study was conducted to gauge teachers' belief to control over students motivation and performance. Five point Likert rating scale was used to collect teachers' responses. Teachers showing fair approval about first item expressed their beliefs in external circumstances overpowering their ability to affect students. But those who showed determination on the second item exhibited confidence in their capabilities to exert control over students' performance and achievement.

Over a period of two decades investigation, researchers turned to Bandura's social learning cognitive theory of self-efficacy (Shaughnessy, 2004). Self-efficacy concept presented by Bandura evolved from person's belief about his or her capability to perform action to achieve goals. Some researchers assumed that Rotter's internal locus of control and Bandura's perceived self-efficacy are the same construct. Both the concepts, Rotter's internal locus of control and bandura's perceived self-efficacy carry no theoretical or practical relationship. Bandura (1997) made clarification of misconceived assumption about these two concepts. Bandura stated that beliefs of one's abilities to perform certain actions (perceived self-efficacy) is not the same as beliefs about whether actions affect outcomes (locus of control).Verily perceived self-efficacy is practically different from locus of control. In other words perceived self-

efficacy reflects clear-cut determination to perform an action successfully. Therefore, perceived self-efficacy is a better predictor of behavior than locus of control.

2.2.1 Measurement of Teacher Efficacy

For the purpose of validating teacher efficacy construct and its measurement Gibson and Dembo (1984) based on the Rand two-item scale, developed 30-item scale that yielded two efficacy factors: personal teaching efficacy and general teaching efficacy. When they administered Teacher Efficacy Scale to elementary teachers and observed them in the classroom, they found differences in the performance of high efficacious teachers and low efficacious teachers. Teachers who rated them high in their beliefs about their capabilities to teach their students, they consumed maximum time in whole class teaching and did spend less time instructing small groups. Moreover they encouraged and led their students to create exact answers, rather than criticizing students for incorrect responses.

Ashton and web (1982) and Dembo (1984) identified that the two dimensions of efficacy can operate independently. For example, the teachers who believe that teaching is a potent factor in students' learning may believe either that they are effective or they are not capable of teaching their students well. Another situation may exist, teachers may perceive that teaching in general can have less effect on students but they themselves can impact greatly students learning.

A revised version of 20 items out of 30 items on the base of data analysis Gibson and Dembo (1984) offered to use for the research purpose in the future. For most research studies research scholars availed an abbreviated form of Gibson & Dembo scale comprising on 16 items. For example Soodak and Podell (1993) and Woolfolk and Hoy (1990) used version of 16 items. Similarly Hoy and Woolfolk (1993) used more briefed form of 10 items. According to these researchers it was due

to the certain items loading onto more than one factor or neither factor significantly. These are the inconsistent facts, therefore Hoy and Woolfolk recommended investigators to conduct their own factor analysis.

To determine how to gauge best teachers' efficacy beliefs, Tschannen-Moran *et al.* deeply studied measurement of efficacy scales, which grounded in Bandura's theory of self-efficacy. Their studied measures were, Teacher self-Efficacy Scale offered by (Bandura, 1997), the Ashton Vignettes (Ashton, Burhm & Crocker, 1984). For the purpose of measuring science teachers' efficacy beliefs an instrument developed by Riggs and Enrochs (1990) called Science Teaching Efficacy Beliefs Instrument (STEBI) also studied by the Tschannen-Moran and others.

Different scholars attempted varied methods best suited for the purpose. For example Mone, Baker, and Jeffries (1995) taken items from many different instruments and shaped them in a refined form scale.

2.3 CULTURAL EFFECT ON TEACHER EFFICACY

Culture of a particular area may also impact teachers' behavior positively or negatively. As Rutter *et al.* (1979) suggested that teachers may establish norm of mutual reverence and behaviors at their own which may become a strong prevailing trait of the school and be proved a source of satisfaction and self-esteem for teachers (p.179). Public opinion and behavior toward teachers act as vital external social factors that impact greatly teachers' self-efficacy. According to Louis (1990) cultural values play vital role that cause teachers' respect and status, as a result teachers' sense of efficacy is impacted positively or negatively (p.30).

Wilson and Corcoron (1988) described that teachers hold beliefs that school success was closely related with respect for teaching (p.88). Louis (1990) commented that community comprised of a variety of individuals and groups holding differential set

of feelings, behaviors and beliefs. It is not possible that teachers earn respect from all individuals (p.32).

McLaughlin and Talbert (1990) concluded that teacher's positive behavior, firm confidence and accurate thinking about the task of teaching impact effectively teaching and learning practices in the classroom. It may positively result in promoting teachers' respect and social status in the society. The same views put forth by Metz (1993) that teachers who view instruction valuable and give importance to meaningful teaching and learning consume their energy and utilize worth and spend considerable extra time in teaching, may earn a respectable status in society. In other words teachers respect and social status is associated with their students' academic performance and achievement (p.130).

2.4 EFFICACIOUS TEACHERS' BEHAVIOR

Teachers having high level efficacy beliefs upon their capabilities exhibit encouraging behaviors towards learners. They consume energies, put harder efforts and spend more time in teaching. They always engage themselves to experiment imaginative instruction and take responsibility of learning outcomes. In the context of classroom teaching efficacious teachers' behavior is discussed in the following sections.

2.4.1 Address to Public Demand

Respond to public demand is a challenging task. To address public demand and satisfy their aspiration for achieving desired academic achievement level, require to consume energies and time. Efficacious teachers reflect absolute determination, take accurate decisions in time and observe severe pain taking routines to promote active learning. Devotion to teaching is one of the main features of their teaching.

These discriminating traits of efficacious teachers are discussed in the following subsections.

i) **Determination for excellence**

Strong will power to acquire academic excellence of the learners is one of the main traits of the teachers who accept challenges to bring a desired difference in learning. Reflection of public aspirations in academic excellence is a pretty hard task. As Sedlak *et al.* (1986) examined the flow of forceful public demands and the reaction of teachers to address such vital challenges. They concluded that teachers either may put them endeavoring to fulfill these pressing demands by engaging the students in tough activities to acquire high achievement or they gradually lose determination of hard work for academic excellence (p.123). Devoted teachers consume energies exhibit encouraging intimation toward learners that they are capable of learning all kinds of content. Their learners motivated, getting positive expectations from their teachers. As Lee, Smith and Croninger (1995) placed high importance on conveying clear expectations to all students.

ii) Decision making power

The researchers identified multiple dimensions of teacher role to function in the classroom environment. Teachers' power of decision for his or her manner of exposure of new knowledge before learners plays vital role in academic performance and achievement. Cusick (1983) concluded that teachers' decision making power plays an important role that enables an individual teacher to expose him or herself in effective way in the classroom (p.56). In the same manner teachers may establish knowledge creating community at schools. As Lee *et al.* (1995) concluded schools that create an atmosphere of valuable community of adults and learners, promote high academic achievement particularly at secondary level (p.11).

iii) Devotion for Teaching

Teaching devotion proved a source for thought and action to achieve academic excellence. Newmann and Wehlage (1995) stated that devoted and efficacious teachers who viewed all learners capable of rendering higher order academic performance, shaped secondary schools priorities to address multiple public demands (p.15).

It is a matter of fact that students always expect their teachers to put them in hard and challenging activities to acquire high-level academic success. Keeping in mind learners' burning ambition for higher-level academic success, devoted teachers convey high expectations to their students. According to Gall and Reynold (1999) efficacious teachers convey high expectations to their students that positively impact their students' achievement. They found that teachers' expectations were closely related to students' academic success. The teachers who conveyed high expectations of success for their students, the performance of their students was high. Where a teacher indicated low expectations of success for a particular student, the student performed poorly.

2.4.2 High Expectations for Students

Skillful teachers manage to motivate their students conveying high-level expectations. It makes their students to react positively to teachers' demand. Consequently teachers are inspired to experiment innovation in teaching. It promotes rigorous teaching and learning routines. As a result knowledge generating culture is established. According to Bryk *et al.* (1993), high school teachers create school wide academic climate culture, where students are conveyed that they all are able to learn and achieve at higher level (p.133). Rouche and Baker (1986) also confirmed that communicating high level performance expectations warranted learning climate in the classroom. It reflected students' desired level performance and achievement (p.29).

Conveying high-level expectations to students on teachers end warrants students' increased level academic performance and achievement. (p.29). As Wilson and Corcoron (1988), found students at secondary level being communicated high expectations, reacted in a better way to high demands for performance that promoted increased learning and motivated their teachers to improve innovative practices (p.103).

Learners avail their right for choice of institution to fulfill their aspirations. Efficacious teachers attract learners managing to create a knowledge promoting community in the school. According to Natriello *et al.* (1990), secondary schools where teachers demand low rigorous work and insufficient challenging activities, promotes students departure from school to somewhere else to satisfy educational aspirations (p.100). Efficacious teachers inspire unmotivated learners with encouraging expectations. To respond teachers behavior students try their best to prove their worth for higher-level academic achievement. Teacher-student reciprocal behavior established an inspired classroom culture that promotes enhanced learning and academic achievement. As Lee and Smith (1996), stated that efficacious teachers motivated their students to translate their teachers' expectations in to realities, consequently it promoted higher order learning (p.109).

Teachers having high level self-efficacy repose confidence in students' improving potential. Regardless of gaps in previous academic achievement level all the learners are evenly expected to perform. Individuals' setback in performance is treated consuming extra time. As according to Talbert (1995), placing students into different tracks according to students' previous achievement level indicates variation in expectations. It impacted students' performance and achievement positively and negatively as well (p.78). Educational institutions may eliminate an impression of

low-level expectations among students by offering equal opportunities to learn valuable challenging subjects for all students. Managing low achievers gaps in previous achievement level efficacious teachers may offer equal courses to all learners. According to National Association of Secondary Schools Principals (NAASP) repot (1996),secondary schools convey their expectations to students by offering them different courses according to their ability grouping , which shows the low tracking students that less is expected from them. They do not have capabilities to perform for high academic achievement (p.50).

2.4.3 Creating Sense of Self-Esteem in Learners

Students associate dignity and respect with rigorous and tough routines they take up for their academic career. Tough learning routines for higher order academic achievement motivate learners to render harder efforts that create chances to earn respect and dignity. Developing a sense of valuable individuals among students proved an inspiring source for achieving academic excellence. According to Susan Harter (1990), the tasks and activities that are valuable to students, proved a source to create a sense of self-esteem among students who confidently under took and completed such challenging tasks. Hard task that offered tough time developed higher sense of self-esteem. Researchers agreed upon the conclusion that sense of self-esteem among learners positively impacted their learning. Teachers may create an atmosphere of learning that develops a sense of self-esteem among learners. Consequently increased sense of self-esteem promotes higher order learning. As Borton (1991) found that teachers who had high sense of self-efficacy developed an increased sense of self-esteem among their students, which resulted in their increased learning. As according to Marsh (1990) who concluded that students who were found

having high self-esteem, demonstrated more interest in learning process and reflected desired level learning and achievement.

Sense of self-esteem also modifies learning behavior of students that consequently promotes higher order learning. It also provides learners opportunities to flourish their natural learning abilities and exposure of learned skills. Hansford and Hattie (1982) found that self-esteem is associated with the nature and abilities of the learners. Where students showed more positive behavior towards learning activities and accomplished the task accurately, earned more satisfaction and self-esteem. Efficacious teachers manage to create an atmosphere of learning culture in the classroom environment that provides basis to minimize gaps in gender differences among learners. Developing a sense of having equal learning capabilities all types of content among learners, teachers may diminish gender differences. It may promote higher order learning in male and female learners. According to Philips and Zimmerman (1990) boys and girls perceived themselves having similar abilities to perform different tasks in their subject areas at elementary level .In the secondary classes a significant change was found among girls about their abilities to function in the school.

With the passage of time as the young children acquire sound thinking ability about the real world their perception about their abilities vary greatly. In a study Paris and Cunningham (1996), found that young children hold them in high esteem and accordingly bear positive perceptions about themselves particularly in the school learning environment. When these students grew older and they achieved broad vision about the world, they analyzed themselves more accurately.

Wright and Taylor (1995) stated that a large number of individuals are those, who join groups having similar characteristics, trends and interests. They are

recognized by their collective self-esteem groups. Wright and Donald Taylor (1995) conducted a study on young children and found that the children who were taught through the medium of their first language, showed greater individual and group self-esteem than those who were instructed through second language. They also analyzed themselves more accurately. Teaching through the medium of first language proved a source of self-esteem.

2.4.4 Courage to Own Learning Outcomes

Active learning classroom environment creates experimentation culture in teaching learning process. Teachers high in self-efficacy believe in experimenting innovative instruction. Since experimentation is energy consuming painful and risk taking rigorous task, it may result in increased learning or low level learning outcomes. Courageous skillful and worthy teachers establish experimentation culture in the classroom environment for promoting higher order learning. As Wehlage *et al.* (1989) described the behavior of efficacious teachers. These researchers pointed out that teachers high in self-efficacy take the responsibility of the outcomes of teaching and learning. They take pain for the learning of every individual and help every learner to overpower learning obstacles to be successful (p.135).

Creating a sense of teacher responsibility culture in the school may change traditional school culture that holds learners responsible for their own leaning. Since teachers' worth is measured in the form of students' academic achievement, it is therefore teachers are assumed responsible for success or failure of learning. Murphy (1992b) identified the indicators of effective change in schools. He described the teachers' beliefs of accepting the responsibility for academic success of students to eradicate the practice of holding students responsible for their own success or failure.

They believe that school as community is responsible for the academic success of all students (p.95).

Teachers having clear thinking for experimenting innovative instruction believe in taking responsibility of students learning. Experimenting their thinking indicates their belief upon their capabilities to bridge the gaps in students' previous level of achievement. It results in a changed teacher responsibility culture for students' academic success. To make a changed teacher responsibility culture Louis and Miles (1990) described teachers' thought for accepting the responsibility for academic success of their students. These researchers explained that efficacious teachers being responsive to teaching believe that, they themselves are more capable of impacting students' learning, than depending on any other factors like socio-economic status or previous achievement level of their students. They have courage to establish a teaching-learning culture putting themselves and their students practicing tough routines and performing creative activities (p.88).

Teachers-students mutual commitment to achieve academic excellence promotes teachers as well as students' academic worth. The more energy teachers consume and do harder efforts in collaboration with learners to experiment innovative thinking, more worth they acquire during teaching-learning process. As Darling-Hammond *et al.* (1995) found that teachers those are responsible for teaching believe in measuring their own worth and success by the achievement level of their students. They also believe that working hard with their students promotes their own skills and worth (p.62).

In active learning classroom climate effective teachers realize their students about their valuable learning potential. Regardless of previous academic performance or family academic background, students are treated as efficient learning individuals.

Learners' academic performance and achievement reflect responsibility level of efficacious teachers. Describing teachers' trend for taking students' learning responsibility in the classroom Romo and Falbo (1996) identified ineffective teachers having no productive academic achievement. These researchers explained that ineffective teachers tend to hold responsible students' previous achievement level and their family aptitude towards schooling, as major factor for poor academic performance. They hesitated to accept direct responsibility for academic failure (p. 218).

2.4.5 Indicators of Teaching Commitment

Efficacious teachers are committed to promote successful learning for all students. They create ideas to experiment and take responsibility of learning outcomes. They establish a culture of thinking and experimenting innovation for promoting active learning. Efficacious teachers believe upon their capabilities to transmit knowledge, they never depend on external factors like students' previous achievement level or socio-economic status of the students. They reflect teaching behaviors that indicate responsibility for creative learning. Experimentation of innovative thinking in teaching learning process reflects their Commitment to promote meaningful learning.

i) **Interest and responsibility**

Keen interest and responsibility of teaching is vital to academic success. Willingness to consume plentiful time and burning energies for creative learning reflect teachers' determination for academic excellence. As Wilson and Cocoran (1988) described efficacious teachers who take personal interest and assume responsibility of success for all students. They believe that all the students are capable of learning all types of content. These teachers are committed to teaching and willing

to consume energies and time for the promotion of meaningful learning of their students (p.99).

ii) **Creative thinking approach**

Desiring success for all students reflects teachers' belief in their capabilities. Efficacious teachers' thinking for creative learning differentiates them from less efficacious teachers. They have the capabilities to experiment their creative thinking to promote meaningful learning. They willingly consume energies and exploit available sources for the academic success of all their learners. As Murphy *et al.* (1982) described efficacious teachers' way of thinking and taking action accordingly. These researchers explained that teachers high in self-efficacy believe that they are able to make a positive difference in learning for all students.

iii) **Varying Behavior Towards Teaching**

Teachers varied behaviors were recorded during the classroom teaching according to the nature of subject and classroom situation. Difficulty level of the subject and learners pace of learning content measure the teachers' worth. Teachers high in self-efficacy own the causes of academic success or failure. They never tend to blame learners for poor academic performance. Donmoyer and Kos (1993) identified teachers' beliefs and behaviors for classroom teaching. They found, teachers varying in their behaviors towards teaching. Teachers having strong belief upon their capabilities, found successful in creating a climate conducive to learning. Teachers indicating low efficacy beliefs were hesitant to own the causes of failure. The researchers concluded that level of efficacy beliefs upon one's capabilities is a powerful source to encounter hardships and confronting problems.

Efficacious teachers study the learning nature of their students. They manage to address learners' individual deficiencies of previous academic achievement level.

Working hard on innovative creative activities promotes perfection on content. That enables the learners to achieve academic excellence. Fullan (1988) described teachers' behaviors towards teaching. The researchers found that teachers exhibited a variety of behaviors linked to their personal beliefs about teaching. Successful teachers employed different instructional practices and communicated positive messages that all the students are equally able to learn.

Effective teachers think creative instructional plan to experiment. They possess expert knowledge to implement innovative thinking. Willingly collaborate to formulate objectives and plans for action to achieve their prime target of academic excellence. Grant (1988) described a positive and productive learning culture in secondary schools. He stated that teachers and principals created a learning community in a cooperative climate without waiting for guidelines from authorities. They believe in collaboration working for arranging material, setting goals and taking actions (p.175).

2.4.6 Developing Real World Approach

Effective teachers take responsibility to develop learners' vision about the world they face in the future. They possess the capabilities to put the learners in rigorous activities that enhance learners' knew knowledge and practical skills to work in the world of job. As Steinberg (1996) commented students' beliefs to value learning. He stated that students may be actively engaged in learning material that is interesting and linked to their practical lives (p.72). The world of work is always subject to change. Rapid advancement in technologies and explosion of knowledge created new trends in the world of job. Efficacious teachers manage to update their knowledge and transfer it to their learners. Teachers having high-level capabilities exhibit no hesitation to experiment their innovative ideas. Consequently there

develops a culture of new traditions to equip the learners with update knowledge and emerging skills to function in the world of work. According to Louis and Miles (1990) a large number of teachers are unable to perceive the difficulties students are confronting outside the school in the real life context. Teachers need to perceive real world realities, students are confronting out of school context (p.64).

Changing societal needs impact world of work in the modern ages. It lies with the teachers to remain in touch with emerging new ideas. Ingenious teachers high in self-efficacy make genuine attempt to create learning activities that promote higher order skills to address the challenges in the field of work. According to Darling-Hammond *et al.* (1995) teachers may increase students' interest in learning by linking classroom activities with the realities of the world, students face to function in their society (p.71). Building practical link between the ground realities and classroom learning activities Steinbrg (1996) put forth suggestions to bridge the gap between the societal needs and school knowledge. According to his point of view high-level self-efficacious teachers may activate students' trends to enhance their knowledge that works in the market. He stressed to find out the ways to inter link-learning activities to the realities students confront in their practical lives (p.58).

Steinberg (1996) commented on school reforms. According to Steinberg point of view the focus point, should be to find out ways to enhance school effectiveness by activating learners' interests for purposeful challenging engagement (p.63). Steinberg (1996) further suggested that school being an interesting learning center might impact students' readiness for learning, which may affect school climate positively (p.63).

2.4.7 Future Building Learning

Students come to learn to turn their dreams in to realities. Investing time and consuming energies in rigorous learning activities reflect their concern to have

superior jobs in the market. Harder the efforts they invest in learning process higher the level of academic achievement they earn. It promotes their potential to address societal needs and take high rate of return from jobs. As Brantlinger (1993) described students' beliefs about learning for career building. He explained that students link their academic performance to their lifelong skills that enable them to play a successful practical role in the real world of work. Hence they perceive their learning as a means to become an active and beneficial member of society (p.101). Effective teachers motivate learners to put hard efforts for higher order learning that may translate their future-building dreams in to realities. As Taylor (1994), suggested to focus students' motivation to link forthcoming future challenges. Teachers may develop a sense among students to view learning an important tool that enable them to make choice and undertake career responsibilities (p.120).

High-grade academic achievement career at secondary level provides source of motivation to compete for admission in the next higher level educational institutes. As Steinberg (1996) also supported this point of view that students at secondary level put their best energies in learning activities for earning high grades. High-grade academic achievement confirms admission in the institutions of next higher level of education (p.74).

2.4.8 Hope for Bright Future

Societal needs are always subject to change. Command on update emerging expert knowledge may respond to public demands. School is the place only where teachers possessing high-level capabilities develop learners' capabilities carrying differential academic achievement level and bearing diverse family background. Teachers possessing high-level expertise have the courage to take responsibilities for improving students' level of academic achievement regardless of their previous

achievement level. Creating school culture for setting high-level academic goals provides chances for learners crossing poverty line towards high socio economic status. According to Miron (1996), students who belong to poverty stricken families attach great importance to meaningful learning that develop their prerequisite knowledge and skills for college level education. High standard academic achievement is their level of aspiration that keeps them motivated (p.170).

Responsive teachers create awareness among learners to change their status in to bright future through strong academic career. As Wilson and Corcoran (1998) stated that poverty ground minority groups lack information that they may change their socio-economic status by improving their educational level and standard. These researchers suggested that providing information; these groups might be motivated to fulfill their aspirations by means of acquiring better academic achievement and developing their practical skills (p.100). Acquiring expert knowledge that provides solutions for the complicated problems that learners confront in the world of work market, poverty trapped minority groups may build their bright future. According to Miron *et al.* (1992), students are likely to engage in learning material that helps them to solve their problems they face in their daily lives (p.26).

Appreciative comments for students' academic success particularly from parents and friends is a source of pleasure and token of honor. Parental acceptance for academic performance and achievement reflect level of importance of learners at home environment. It promotes sense of self-esteem in learners. Since students associate their academic success with public acceptance, it may create a prime sense for dignity and further motivation to learn. As Wigfield *et al.* (1998) identified peers affiliation as a strong factor that may increase or decrease motivation for better performance and achievement (p.73).

2.5 DEFENSIVE INSTRUCTIONAL STRATEGIES

Setting high goals for academic success for all learners reflect the teachers' passions for teaching. Effective teachers exhibit sentiments to promote meaningful learning in the process of transmitting knowledge. Sentimental reflection of teachers' feelings spurs the learners to be actively involved in creative learning activities. Intrinsic motivation works for learning pleasure. As according to Phelan *et al.* (1998) teachers concern for teaching subject matter may be observed accurately by enthusiasm the teachers show while teaching subject. Teachers communicate their students' excitement by demonstrating active engagement in transmitting knowledge it may enhance learners' excitement to be fully engaged in absorbing knowledge. (p.198). Active learning generates creative thinking and mental autonomy in learners. Democratic behavior in teaching learning process promotes sharing ideas and to value individuals opinions. Worthwhile learning generates from experimenting creative thinking. Experimenting live multiple instructional strategies eliminates passive learning culture. According to McNeil (1986), due to teachers' defensive instructional strategies for teaching learning process, students' creativity for meaningful active learning badly affected. Teachers develop a sense of passive learning among students which results in non-creative performance and less valued academic achievement. (p. 192).

Strict disciplined classroom culture promotes passive routine matter. Pin drop silence classroom culture viewed as optimum condition for effective learning. Teachers stressed only noncreative routine wise activities to engage learners. Perrone (1985) described teachers' beliefs about classroom control. He stated that teachers attached great importance to disciplined classroom environment, and maintained that quiet classroom culture viewed as conducive to successful learning activities. It

diminished innovative instructional practices essential for meaningful learning and higher-level academic achievement (p.165).

Less capable teachers possess no creative thinking to experiment in teaching. These teachers may not put harder efforts for active learning. Consequently nonproductive passive learning promoted. As Grant (1988) pointed out another submissive form of instructional strategies. He observed teachers busy in less interesting routines. The teachers kept the students engaged, they did not offer challenging tasks and hard activities to accomplish throughout the whole academic session. Neither teachers presented higher order learning activities to their students that needed a lot of skills, patience and effort, nor the students posed tough and creative questions to their teachers (p.162).

Instructional practices grounded in creative thinking impact learning positively. Teacher centered classroom culture may produce content memorizing. Consequently creative thinking skills development diminished. Describing teacher centered classroom Metz (1990a) stated the routines of submissive classroom culture. Instructional practices reflected no creativity or innovation in teaching learning process. A sense of submissive performance prevailed there in the classroom context. Priorities were given to obey teacher- centered instructional routines and taking responsibility for exercising work habits (p.67).

A number of researchers tried to investigate the true nature of the quality of teaching learning process with in the classroom context. Less efficacious teachers may not conduct discussion sessions in the classroom to share learners' ideas that promote creative thinking. They do not have the capabilities to arrange, process, direct and control such creative activities that promote meaningful active learning. Sedlak *et al.* (1986) stated that teachers often prefer orderly and disciplined climate

during teaching. The teachers think, if discussions or interaction is allowed during teaching and learning, it may create discipline problem or noise. For this very reason, for the most time during teaching, teachers are not likely to involve the learners sitting in the back rows in the process of learning. Such students are expected, not to participate actively in genuine learning. They sit in the class as passive learners and are expected to allow the lesson running smoothly (p.95).

2.6 TEACHERS AS SUPPORTIVE INDIVIDUALS

Effective teachers take responsibility of character building of their students. According to Louis and Miles (1990) secondary school teachers perceive themselves as master of the particular subject content. Being competent and having command over subject material they are likely to transmit knowledge effectively, but they are unlikely to take responsibility for developing other traits in a child for building character and fostering as balanced individual. Teachers lack interest for this important obligation and leave the child to administrator or guidance specialist (P.10).

2.6.1 Openness of Teachers

A sense of cooperative friendship for creating knowledge prevails in the live learning classrooms. Teachers develop thinking skills in learners to share creative ideas. It gradually promotes confidence and a sense of pride to create meaningful learning among students. As Phelan *et al.* (1998) described teachers' behavior for creating climate conducive to learning with in the classroom context. Efficacious teachers being caring and affectionate towards students and minimize deficiencies that hinder their active involvement in learning. By promoting friendly attitude in teaching learning process efficacious teachers manage to remove students' hesitation to express their ideas. It may develop creative thinking skills and sharing spontaneous thinking

ideas. Consequently teachers build up a peaceful unthreatening and cooperative climate for learning (P.179).

Teachers who devoted to build their students' future may provide guidance to build their characters. Students believe that their teachers are loyal to teaching profession and sincere to their students. High-level efficacious teachers willingly work with vigor strength and determination to solve their students' problems. Within the school climate or outside the school students may approach their teachers to consult their private affairs. As Miron (1996) suggested that teacher and students mutual confidence plays vital role for establishing close relationship. Teachers who share students difficulties concerning learning environment or outside the school student's personal affairs related to his family and maintain students confidence for sharing secrets, their trustworthiness and fairness brings a lot to accommodate students (P.161).

Efficacious teachers deal their students in delicate and pleasant way. It develops a sense of respect among learners. Communicating polite and hopeful wording to learners, teachers may make learning activities joyful. According to Grant (1988) efficacious teachers perceive their students as respectable individuals. They never hurt students' feelings to make humor or fun. They exhibit polite behavior and respect to their students (p.143). Modeling a desirable behavior teacher my impact positively students' behavior. Efficacious teachers take responsibility of building students character to play a positive role as active member of the society. Student individual character accommodates the student in the society. According to Lutter *et al.* (1979), teachers are responsible for the modification of behavior or developing a particular desirable behavior of their students. Students mostly shape their behavior,

following the behavior exhibited by teachers with in the classroom environment and outside the school in the social context (p.189).

Teachers may increase students' close concern with their institutions by promoting a sense of respect in learners. McLaughlin (1994) commented students' association with school, devotion to school and learning. He noticed that students believe themselves as individuals and learners in the manners teachers communicate behavior towards their students perceiving as students and individuals (p.9).

2.6.2 Teachers' Caring and Help

Improvement in academic achievement level of low achievers regarded as indicator of effective teaching. Parents gauge the excellence of effective teaching comparing the difference in the achievement level of low achievers and high achievers. To elevate the academic achievement level of the low achievers demand teachers to consume energies, extra time and exploit available sources to experiment innovative instruction. Describing teachers' effectiveness Romo and Falbo (1996) commented students and their parents' perception about excellent teachers. The researches related that people believe, the teachers who struggle hard to help those who make less progress in learning as compare to good students, are caring and helpful effective teachers. To satisfy public expectations to care their children teachers confront pretty hard task. Since individuals vary in their nature and thinking, teachers having extra ordinary capabilities and courage to address this challenge. As Brantlinger (1993), stated that the process, how students view caring is complex, any how people in the society, having beliefs on their own ideas and experiences that vary at large scale (p.107).

Perception of caring varies according to the types and background of the students. According to Phelan *et al.* (1998), students having high academic

achievements believe that teachers assistance for learning content material meaningfully is a strong indicator of caring. Goals for high academic achievement level is considered indicator of teachers caring for students. Whereas students confronting problems in learning perceive that caring comprises of teachers traits like patience to consume time and energy for promoting learning, attending learners at individual level and interest for each learner high academic success (p.197).

2.6.3 Setting High Goals

Teachers' decision-making power for the choice of innovative experimentation in teaching is an indicator of their expert knowledge and command of the subject. They manage to transform creative thoughts into learning activities that offer real challenges to learners' vigor and determination. Such novel activities transmit expert knowledge and command over subject material. As Metz (1993) stated that instructional practices differentiate skilled-masters from non-skilled teachers. He asserted that teachers may be empowered to make decision about the selection of content for teaching. They may also exercise the power to frame the instructional activities which result in assimilating learned content. Teachers, who lack skills for selection and planning content and accordingly exposure of planned material, are not skillful (p. 108-09).

Setting high target for academic achievement springs out high level efficacy beliefs of expert teachers. According to Grant (1988), by keeping students engage, teachers may develop perfection on a particular content area in learners. Efficacious teachers make learners working on the same activity unless students acquire mastery on that particular area of content. Teachers may also manage, creating interests and motivating learners, trying hard on the subject materials valuable for academic point of view (p.143).

2.7 CREATING TEACHER- STUDENT RELATIONSHIP

Learners' hesitation to discuss about learning problems increases demoralizing effects on learners. It poses real danger to imaginative flow of ideas. Perceiving the learners' hesitation, meritorious teachers create friendly feelings to remove hesitation effects. It promotes a sense of trust upon teachers. According to the Lee *et al.* (1995), teacher and students establish close relationship, which consequently enhance students' engagement and motivation for high academic achievement (p.6). Bryk and Driscoll (1988), pointed out when teachers exhibit students well- wishing and allow students to seek help and share problems meaningful learning enhanced greatly. Teachers, students' social association promotes motivation for learning (p.7).

According to Wigfield *et al.* (1998), social relationship with in the classroom among teachers, students and their peers is main source for promoting learning. Since differential behavior occurrences in the classroom context, affects instructional process positively or negatively. Consequently learning outcomes affect immensely (p.74). According to Rutter *et al.* (1979), effective teachers consume maximum time for promoting interaction as a major instructional activity involving all the learners with in the classroom context. Consequently it enhanced schools academic achievement (p.116).

Teachers' effectiveness reflects in students' willingness to learn. Effective teachers activate students' determination power to learn. In others words teachers effectiveness and students decision making power are interdependent factors. According to Metz (1993), teachers and students are highly interdependent for the process of teaching and learning. Learning may not take place without voluntarily readiness and cooperation of the learners. Although teaching depends on teachers' effectiveness, learning is highly dependable on learners' decision to learn (p.105).

Teacher student cultured relationship within or outside the school environment is essential to promote active meaningful learning. Describing importance of teacher student relationship for successful learning Larson (1992) laid great stress on teacher and student friendly relationship for the occurrence of best possible learning. Larson further stated that teachers' major responsibility is to promote successful learning. Positive learning difference is highly dependable on teachers and students' close relationship with in the classroom context and also outside the classroom (p.34). Meaningful learning is grounded on the assumption that students' motivation is the key factor to personalize their aspirations in the life. Metz (1993) stated that students' engagement for learning is associated with the personal fulfillment of their goals for life. Students being a large community in the school are dependable to control on acquiring their willingness to make the learning happen (p.109).

According to Page (1991), successful professional teaching is grounded in teachers-students mutual concern and relationship. Successful teachers are skillful to develop close relationship with whole class as well as to individual students, to follow a variety of behavior from willingness for learning to unwillingness and stubbornness to interact. Efficacious teachers skillfully overpower all occurrences of behavior like excitement and ridiculous exhibitions, students thinking surprisingly willing to learn (p.155).

According to McLaughlin (1993), teachers confront a variety of behavior grounded in learners' characteristics and individual differences. Successful teacher builds up an unusual set of behaviors, which works for different classrooms context to address variation in behavior of learners (p.81).

2.8 FACILITATING STUDENTS DIFFERENCES

Bryk and Driscoll (1988) identified the challenges teachers confront due to the diversity of cultures and groups that constitute school community. The researches further explained that successful school, by minimizing the cultural gaps constructed a unified cultural climate (p.12). Phelon *et al.* (1998) also described cultural differences one of the major problems confronting in secondary classes. Variety of complicated behaviors exhibited in the classrooms that may strongly affect interaction happening in the teaching learning process (p.3).

Mc Laughlin (1994), advised teachers to study students' family background, ethnicity and their social activities in the society. Lack of knowledge about cultural history of the learners, teachers may not be successful to establish positive relationship with learners that promotes learning for all students at high level (p.9).

According to Bryk and Driscoll (1988), social and cultural harmony reflects likeness of thought and action among learners for high academic achievement. Bryk and Driscoll further stated that such unified cultured students are relatively easy to teach and are a strong source of efficacy and satisfaction for teachers (p.13).

2.9 DEVELOPING INTELLECTUAL CLIMATE

According to Boyer (1983), efficacious teachers work together to confront hardship and problems hindering meaningful learning and performance. They create an atmosphere of intellectual development (p.159). According to Wilson and Daviss (1994), teachers who believe upon their capabilities undertake joint venture to create professional development by sharing innovative experimentation (p.147-148).

According to Lee *et al.* (1995), teachers who have command over subject material and instructional strategies; believe in creating, experimenting and evaluating their innovation for high level academic achievement (p.5). According to Mc

Laughlin (1993), efficacious teachers who believe to introduce change, think possible solutions beforehand of upcoming problems. They organize knowledge from different reliable sources to construct innovative instructional practices grounded in new ideas (p.99).

According to Fullan (1997), for creating thoughtful teaching and learning climate, successful secondary school teachers concentrate on non-traditional approaches and strategies that assess performance (p.46). According to Fullan (1988), innovative teaching concepts are time consuming to experiment. Further, implementation of innovation and maintaining it demands patience and hard efforts (p.20).

According to Huberman (1993), teaching is an utterly complicated multidimensional task. It is unstable and requires energy and speedy interaction to happen (p.16). According to Metz (1993), effective classroom teaching is highly dependable on trusted and effective instructional strategies and skillful judgment about future effects on students (p.104).

Goodlad (1997) suggested about active classroom teaching and improved students learning. He stated that meaningful classroom teaching resulting in improved students achievements at higher level; entail two essential factors, teachers involvement in the subject matter to acquire good command of content and skills of developing excellent instructional planning to transmit knowledge in an understandable manners (P.135).

Little (1990) lays great stress on professional development for secondary teachers. He describes the teachers who do not work hard to earn command on their relevant subjects and lack instructional competence they are unlikely to achieve educational goals (pp.202-203). According to Nystrand (1997), efficacious teachers

develop higher order thinking engaging their students in endeavoring activities grounded in understanding and creating novel approaches to expand knowledge (p.7).

According to Newmann (1992), central focus of teaching lies in developing critical thinking to assimilate knowledge that stimulates creativity (p.63). According to Wilson and Cocoran (1988), successful secondary school teachers manage academic excellence for all students. Skillful planning maximum classroom time for active instructional activities that involve students' active participation develop their innovative thinking (p.122).

2.9.1 Contextual Teaching Style

According to Nystrand (1997), classroom instruction and active learning is grounded in dialogue opening that deeply involves teacher and students in the process of creating knowledge (p.95). According to Larson (1992), teaching style is contextual that varies from class to class according to the characteristics and needs of the learners. For every new academic session teachers develop set of strategies and employ different approaches to address individual trends, interests, and needs. Great amount of time and energy sources are consumed to organize best suited instructional strategies to transmit knowledge (p.39). According to Page (1991) teachers alone make decision to determine the psychological nature of the classroom climate, to run them (classroom) efficiently or actively interactive reflecting real learning or transmitting extensive knowledge or even superficially engaging and entertaining students (p.82).

According to Huberman (1993) classroom climate and nature is grounded in varying and complicated contexts, offering extremely hard tasks to confront. Efficacious teachers manage to initiate interaction and run skillfully through

involvement of learners that results in creative deep thinking development and transmitting mastery of knowledge (p.17).

2.9.2 Judging Students Command on Learned Content

Romo and Falbo (1996) suggested a suitable way to tackle students understanding in learning. They advised teachers to try different approaches one by one to instruct. By judging effects on learners understanding, apply the best one which works for that particular area of content and produce desired learning outcomes (p.222).

Louis and Miles (1990) suggested another approach to improve students' learning. By applying a better instructional strategy, teachers may involve learners in best suited activities on individual level with in the classroom or outside the classroom that consequently enhance learning highly (p.25).

According to Newmann (1985), efficacious secondary teachers develop relationship with whole class on individual level and providing feedback grounded in correction of thinking development that promotes student's individual learning (p.16). According to Wilson and Corcoran (1988), efficacious secondary teachers are artful; successfully handle misbehaving learners putting them in streaming for successful learning (p.128).

According to darling-Hammond *et al.* (1995), social and culture histories play important role in promoting learning. Efficacious teachers must know students and their family backgrounds, as learning cannot take place without considering these vital factors (p.261). According to Nystrand (1997), learning is largely grounded in spontaneity. Efficacious teachers create a classroom climate conducive to elicit natural interaction, which results in meaningful learning (p.197).

According to Mc Neil (1986), Efficacious teachers are successful managers. They employ various instructional alternatives for promoting meaningful active learning. They manage to conduct demanded discussions to achieve learning outcomes. Facilitating learners to initiate desired discussion, directing and steering their focus on predetermined content areas, they sum up shared thinking of all participants. It promotes meaningful learning (p.197). According to darling-Hammond *et al.* (1995), Efficacious teachers build up creative learning community that provides students ample learning opportunities that increase their pace of learning and develop social skills to benefit from cooperative learning. In this way effective teachers gradually develop students' empowerment to become competent active learners (p.73).

2.9.3 Empowering Students

According to Nystrand (1997), Efficacious teachers at secondary level keep them mindful of their students' nature. They value their students' opinion and perceive them important. Successful teachers manage to realize students that their opinion is very essential. It promotes creative thinking and spontaneity of expression. As result a culture of sharing creative ideas established (p.108).

According to Darling- Hammond *et al.* (1995), Efficacious teachers focus their students' opinion and discuss its significance for the process of teaching and learning. As a result, students believe in teachers' sincerity and concern about their successful learning (p.225). According to Mc Quillan (1998), Efficacious teachers promote students sense of control over their learning with in the classroom. It develops a culture to put harder efforts and more time to invest in creative learning activities for higher order learning (p.197).

2.9.4 Using Cooperative Learning

In competitive classroom culture learners compete hard to get higher grades, it may promote higher order learning for a small number of competitors but majority of the students are demoralized. Cooperative learning is an instructional alternative that minimizes the tense climate learning culture. Cooperative learning culture may promote social skills to work for the success of all learners. Cooperative learning provides an atmosphere to work in groups without hurting group mates' sentiments. It promotes social skills to work in a group for a common cause. Group cooperation culture for learning promotes better academic achievement. According to Wehlage *et al.* (1989), there is a false conception about classroom cooperation. Research about cooperative learning proved it a very strong and learning among various categories of students (p.182). Oakes and Lipton (1996) compared cooperative learning strategy with other approaches for teaching in the classroom. These researchers found that cooperative learning in mixed ability (low achievers and high achievers) group learners worked better in academic achievement and exhibited skillful social interaction, on the other hand groups taught other than cooperative learning performed at low level (p.182).

According to Wigfield *et al.* (1998), cooperative learning effectiveness is highly dependent on learners' individual urge for seeking guidance and help to complete task honestly with in group. It stimulates students' determination to organize and coordinate social skills to achieve desired learning outcomes. It promotes a sense of cooperation among students to work together for individual as well as common success (p.102).

2.10 EFFECTIVE LEARNING ENVIRONMENT

Classroom climate conditions play vital role to promote interaction for teaching learning process. Efficacious teachers manage the physical conditions of the classroom where seating, ventilation and other physical arrangements are made that may helpful in teaching and learning process. The main aspect of the classroom environment is the mental state level of the teachers and students. It includes democratic behavior, sharing ideas without hurting others feelings and expression of opinions and teachers and students behavior towards teaching and learning play vital role in promoting learning. According to Darling Hammond *et al.* (1995), meaningful active classroom learning associated with work experience of related field that promotes excellent skills development. It is a strong source for successful functioning at real world's challenges (P.71).

According to Perrone (1985), efficacious secondary school teachers manage to create a conducive learning climate that transforms knowledge to develop skills for higher order learning (p.654).

According to Page (1991), classrooms that produce intended academic results plan, link classroom learning activities closely to real world experiences. It involves students deeply in learning activities to work hard for higher-level academic goals. Thus spiral of expectation for academic success is maintained skillfully (p.191).

According to Mc Laughlin (1994), in live active classrooms teacher plays a facilitator role and acts as a guide and students actively engage interacting with their teachers to create knowledge and developing thinking skills. Whereas in teacher centered classrooms students are generally unlikely to be successful (p.11).

According to Perkins (1998), thoughtful learning is a continuous process that requires deep involvement on challenging tasks to develop new thinking skills.

Consequently, further knowledge is generated where conflicting old facts must be excluded (pp.52-53).

According to O'Keefe (1995), quality learning is grounded in engaging students actively in the process of creating understanding and developing meaning. Efficacious teachers employing a variety of instructional approaches put learners in to activities that develop thinking, understanding and constructing knowledge. On the other hand traditional classroom setting promoted factual memorizing learning (p.4).

2.10.1 Promoting Rich Learning Experiences

According to Oakes and Lipton (1996), efficacious teachers create a learning environment, where students work in cooperative groups actively. They are engaged interdependently to develop deep understanding and create knowledge. It also promotes mutual cooperation and social skills (p.183).

Wehlage *et al.* (1989) pointed out the traditional nature of secondary classrooms setting. They found at secondary level fragmentation of knowledge, covering so many topics without depth. It results in only a superficial sequence for exposure of so many concepts (p.184).

According to Newmann (1991), classrooms that produce rich learning and creativity, select limited numbers of topics for deep learning. Various important factors of concepts logically connected together. Students are put to think and respond appropriately working on challenging tasks resulting in thoughtful learning (pp9-10). Wilson and Daviss (1994), stressed on true, accurate and genuine judgment of students learning that transparently measure their thinking, analysis-constructing skills (p.144).

2.11 SUPPORT FOR PERSONALIZING SCHOOLS

Efficacious teachers take responsibility of successful learning for all students. Working in collaboration with colleagues effective teachers manage to arrange courses that turn students' dreams in to realities. Academic success for all learners and higher order academic achievement becomes the motto of their institutions. In this way their institutions play a vital role in promoting higher order skilled manpower for economic development. Newmann (1997), draw a dreadful picture of dropout rate of students and its setback to economic growth. Further stated, 10% dropout rates apparently a minor figure. But according to statistics of the Committee on Economic Development almost over one million individuals are going without any particular standard of education or training every year. They are causing increased unemployment and draining the in social wellbeing (pp.17-18).

Natriello *et al.* (1990) commented on dropouts from secondary classrooms and its effects on the national economy. They pointed out that developing National Economy is likely to sustain those who academically out perform at the secondary level and graduate (P.159). According to Newmann (1997) instructional practices impact directly students' academic achievement level, secondary school require to train their teachers to enhance their self-efficacy for instructing effectively that promote thoughtful learning (p.3).

2.11.1 Students' Personal Achievement Goals

According to NAASP (1996) teachers were advised to help each student to achieve personal academic targets at his or her own pace of learning. Achievement must be grounded in completion of rigorous school tasks (p.5). Wehlage *et al.* (1989) found that teachers may create an environment conducive to learning, where teachers successfully promote students' individual learning goals. Regardless of students'

previous record of academic achievement, efficacious teachers motivate students to be engaged in thoughtful learning activities (pp. 137-138).

2.11.2 Responsibility for Students' Learning

Ogden and Germinario (1995), hold individual teacher responsible for their students' learning. Efficacious teachers burn energies and consume time in motivating students to be actively involved in meaningful learning activities that result in high level academic achievement (p.68).

Tylor *et al.* (1995) stated that students' learning and creating an overall supportive and learning culture school wide is collective responsibility of all the teachers in school. It promotes teachers' collective sense of responsibility which impacts students' learning greatly (p.5).

According to Murphy (1992 b) teachers who want real change in secondary classrooms, do not blame students for poor learning. They take greater share of responsibility for the learning of their students (p.95).

According to Austin and Holowenzak (1985) schools where teachers are inefficacious and possess little or no command over subject matter do not experience any innovative instructional practices. They tend to blame students for academic failure. Teachers as well as school administration, must find out solution of such serious setback (p.71).

Kruse *et al.* (1995) found teachers who believe in assuming responsibility for teaching their students tend to be more cooperative for building instructional development community. Consequently it impacts positively students learning and academic achievement level (p.27).

2.11.3 Teacher Self-efficacy in the Perspective of Western Countries

Self-efficacy is an individual's confidence upon one's capabilities to perform effectively in a given situation to achieve required goals. It happens in many areas of human functioning, including both professional and private behavior. Particularly in an educational framework self-efficacy is the teacher's own confidence in his or her capabilities to design teaching and achieve teaching intents. Teacher self-efficacy is highly context specific.

Since the conception of self-efficacy is culture concerned therefore it is important to note that efficacy beliefs vary accordingly among teachers in different countries. Gorrell and Hwang (1995) conducted cross cultural studies to compare the teachers' efficacy beliefs in terms of culture grounds. These researchers recorded that cultural factors varied significantly teachers' efficacy beliefs. Campbell (1996) conducted a comparative study to find out the efficacy level of Scotland teachers' and American teachers' self-efficacy beliefs level. The comparison was conducted for pre-service and in-service teachers. The researcher recorded no significant difference between teachers' self-efficacy in both the countries. The similarity level of teachers' efficacy beliefs in Scotland and America indicated due to the existence of similarities and relevance of their cultures. Factors like parental support, social awareness and individual efforts may play a vital role in ranking level of teacher efficacy beliefs.

Gorrell et al. (1993) conducted a study to relate the level of efficacy beliefs among pre-service teachers. The sample of the study consisted of American, Swedish and Sri Lankan pre-service teachers. These researchers summarized that American pre-service teachers reflected higher general teaching efficacy beliefs as compared to Swedish and Sri Lankan pre-service teachers. Anyhow Sri Lankan pre-service teachers indicated higher level of personal teaching efficacy beliefs.

Helsby (1995) conducted a study to measure the professional development of teachers in England. The researcher observed that teachers low in self-efficacy perceptions reflected their dependability upon external factors for teaching. They indicated lack of control over teaching in the contextual situation. Conversely teachers' high in self-efficacy reflected strong confidence and competently controlled the effects of external factors on learning. They showed personal responsibilities for leaning outcomes. Reporting the results of an external OFSTED inspection Jeffrey and Woods (1996) narrated that reform severely impacted professional lives of primary teachers in England. Reforms made teachers emotionally stressed, consequently their level of efficacy beliefs badly affected. Reforms cast an unpleasant change in teachers' professional expertise. The results of the study regarding introducing reforms in teaching profession reflected that strong teaching efficacy needed for visible change difference in teaching.

Mac Lure's (1993) studied new educational policies introduced in England and recorded impact on teachers' emotional state. The findings of the study showed that new educational policies launched in England badly affected teachers' personal lives. They perceived new educational policies a source of threat for their privacy. It suggested that level of personal teaching efficacy beliefs direct teachers' thinking about reform change. Emotional tense reflected low efficacy beliefs upon personal capabilities. Kelchmans (1996) concluded that educational policy implementation severely hurt teachers' emotions. Particularly, inquiring about their professional specialty and expert knowledge and also about soundness of their moral status caused emotional jolt.

Another study was conducted by Lasky (2005) to find out the impact of educational reforms on teaching behavior in Canada. She concluded that reforms

severely impacted teachers' expert knowledge and perception of their efficacy beliefs. It is concluded from the above discussion that desired reforms changes grounded in teachers' command over relevant subject and expertise in experimenting imaginative thinking. Teachers' sound moral character is considered a major source of achieving educational aims since efficacious teachers' may build learners' character on sound basis by modeling their noble character. Gresham (2009) studied pre-service elementary teachers' self-efficacy for teaching mathematics. The researchers stated that teachers reflected decrease in beliefs upon their capabilities to teach new curricula or implementing new instructional approaches. The researcher further explained that nervousness for mathematics teaching was observed among teachers.

Bates et al., (2011) linked pre-service teachers' mathematics self-efficacy and mathematics teaching efficacy with their performance in the subject of mathematics. These researchers recorded that mathematics task difficulty level significantly lowered perceived self-efficacy for teaching mathematics. It consequently lowered mathematics teaching efficacy that resulted in poor mathematics performance. This discussion revealed that perceived self-efficacy is not a measure of the skills one has but a belief about what one can do under different sets of conditions with whatever skills one possesses.

Blasé and Blasé (2000) studied principals' instructional leadership for promoting mathematics teaching efficacy. These researchers narrated that teaching efficacy was based on content perfection. Furthermore these researchers explained that teacher efficacy revealed highly context specific that varied classroom to classroom and also with in grade level. Calik et al., (2012) confirmed the role of principals in promoting teachers' self-efficacy. These researchers recorded positive

relationship between school management instructional supervision and teachers' general efficacy as well as self-efficacy.

Wolters and Daughtery (2007) conducted a study to find out teachers' sense of efficacy affiliated with teaching experience and level of academic performance. These researchers did find diverse outcomes for relationship between teaching experience and teachers' self-efficacy. It may be due to the diversity of sample taken for the study. These researchers included teachers across all grades nursery through (K-12) from suburban areas. The findings of their study exposed solid confirmation of reasonable coefficient of relationship between teaching experience and teaching self-efficacy. A minute examination of the findings uncovered the multiplicity level of teachers reported efficacy beliefs. Teachers with one year of experience conveyed little level of efficacy beliefs as compared to more experienced teachers. Teachers' experience ranging from 6 years to 10 years reflected modest level of efficacy beliefs.

Woolfolk Hoy (2000) studied the changes occurred in teacher' efficacy in their early period of teaching career. The researcher observed that mathematics teaching efficacy varied vibrantly in the early years of teaching. Efficacy beliefs of teachers stabilized on the completion of four to five years of teaching period. The researcher further suggested heads of the institutions manage to enhance teachers' efficacy.

Beilock et al., (2010) studied female teachers' mathematics related anxiety; these researchers indicated that female mathematics teachers' math anxiety was associated with the attendance of female students in the mathematics classroom by the end of the teaching session. On the other hand male mathematics students did not appear in mathematics classroom. These researchers argued that girls struggle for attending mathematics class due to their apprehension of deficiency in the

mathematics content. They further explained that the girls who sanctioned the labeled statement that "boys possess the worth to learn mathematics and girls do not" had reflected lower level of efficacy beliefs as compared to male mathematics students. It is concluded that teaching efficacy is highly context specific. Level of Efficacy varies classroom to classroom and also grade to grade. Cultural factors like parental support, social cognizance and effort level etc. play vital role in promoting teachers' efficacy level. These very factors reflected in the efficacy level of teachers in different countries.

2.12 RELATED RESEARCH STUDIES

Investigation about efficacy beliefs identified changes to some extent, specifically where researchers investigated the efficacy beliefs of novice teachers. According to Hoy (2000) practice teaching marked an increase in personal efficacy beliefs of pre-service teachers. Hoy & Spero (2005) also found high efficacy perception in novice teachers about their capabilities when after completion of their practice teaching. In the contrast, Chambers and Hardy (2005) found out that duration of a semester or even two semesters of practice teaching did not account for increase in efficacy beliefs.

Hoy and Woolfolk (1990) observed pre-service teachers efficacy beliefs and found changes in efficacy beliefs as the teachers confronted classroom realities during practice teaching. Classroom context promoted confidence and perception of personal capabilities for teaching and decreased general teaching capabilities. Whereas, no efficacy beliefs changes occurred among pre-service teachers who had not practice thought. It is concluded from the above discussion that training may develop efficacy during the process of teacher training. It depends upon the effectiveness of the training programs and the experts who conduct training to

increase the level of self-efficacy of student teachers that work for real classroom situation. Real classroom realities are grounded in multiple factors including the nature of the learners, cultural trends towards education, family background and many more. To address these challenges expert knowledge and training may increase student teachers' efficacy beliefs upon their capabilities.

According to Yost (2002) efficacious teachers tended to establish conducive learning environment and practiced various instructional methods whereas, less efficacious teachers were inclined to traditional practice. Similarly Housego (1990) concluded that practice teaching positively impacted perception of pre-service teachers' confidence particularly, their sense of being competent in instructional innovation increased greatly. Allinder (1994) concluded that teachers having high efficacy beliefs exhibited motivation for experimentation instructional innovation in teaching. They reflected enthusiasm to overpower occurrences of setback in their teaching. Since less efficacious teachers exhibited reluctance for instructional innovation, they reflected no excitement to confront hard task with confidence. Teachers possessing high level self-efficacy beliefs think creative activities and experiment to improve learning. They indicate no hesitation to experiment their thinking. They have courage to take responsibilities of the consequences of experimentation for innovative instruction.

Excitement to experiment imaginative thinking reflects teachers' level of capabilities to make a positive difference in students learning. Describing efficacious teachers' excited efforts for experimenting innovate thinking Anderson *et al.* (1988) studied teachers' perceived self-efficacy for teaching the core subjects. They found high efficacious teachers excited to implement new ways of teaching to impact students' learning.

Stating innovative experimentation Stein and Wang (1988) conducted a study that involved pre-service teachers' self-efficacy. These researchers used particular instrument framed to measure innovation carryout. They identified that self-efficacy developed confidence of pre-service teachers to carryout innovation in their instruction.

Similar findings were discovered as the result of a study conducted by Guskey (1988). The researcher identified that high self-efficacious teachers exhibited excitement and confidently employed a variety of instructional strategies. From the above discussion it is concluded that teachers having high efficacy beliefs tried new concepts to experiment. It promoted a sense of enjoyment for learning among students. Innovative instructional activities promote students' confidence upon their capabilities.

Gist and Mitchell (1992) conducted a study to find out impact of efficacy beliefs on managerial challenging activities and functioning in the changing contextual situations. The researchers concluded that individuals having high perceptions about their capabilities exhibited excellent management performance and overpowered task related challenges even in pressing demands context and high self-efficacy impacted positively goals attainment since efficacious individuals confronted hard task and applied innovative strategies (Stipek, 1993).

Saklofske *et al.* (1988) identified impact of self-efficacy on teaching behaviors. They noted that high efficacious teachers were found confident of decision making about expending more time dealing discipline occurrences and promoting interaction techniques. Coladarci (1992) conducted a study to investigate impact of teachers' efficacy sense on teaching behaviors. He concluded that teachers with strong sense of efficacy beliefs exhibited professional commitment and innovate

instructional experimentation. It is deduced from the results of the above discussed studies that teachers high in self-efficacy beliefs possess decision making power to promote higher order learning for all students expending more time and consuming energies. They have command on innovative instruction. Putting students on novel learning task promote learners skills to share ideas. Teachers' professional commitment keep them consume their energies and time for the success of all students. As Hoover-Dempsey, Bassler and Brissie (1987) conducted a study to find out efficacy beliefs impact on various instructional related factors, for example parents' involvement, socioeconomic status and other school related characteristics. They found that teachers high in efficacy beliefs were tended to promote parents involvement and winning parental trust and cooperation at elementary school level. It is evidenced from sense of democratic culture by involving parents to cooperate for the success of learners. They willingly share parental participation to promote learners' academic achievement level.

Smylie (1988) and Scriber (1999) identified that more high level of efficacy perceptions teachers exhibited, the higher they were tended to employ innovative instructional strategies to promote effective classroom teaching. In the same way Allinder (1994), Guskey (1988) found a significant impact of self-efficacy beliefs on teaching behaviors. They concluded that teachers' efficacy beliefs promoted positive attitude and excitement for implementing change in teaching methodology. Multon, *et al.* (1991) conducted a large Meta-analysis of self-efficacy studies and their impact on teaching behaviors. They deduced that self-perceptions indexes indicated strong impact on learning attainment. The findings of the above discussed research studies suggest that enormous investment of harder efforts consuming energies, more time, experimenting imaginative thinking and taking challenging decisions and positive

behavioral indicators are grounded in higher level efficacy beliefs of professional teachers.

Parkay *et al.* (988) conducted a study to investigate relationship among perceived efficacy, locus of control and stress. They concluded that teachers having high perceptions of self-capabilities as well as perceptions for general teaching confronted problems confidently persisted on longer and overpowered stress associated problems. Conversely, less efficacious teachers in personal and general teaching efficacy offered more stress and weak performance. Teachers' interdependent group working for the enhancement of effective teaching may impact teaching efficacy. The results of the above-discussed study implied that teachers high in self-efficacy indicated managerial command over stress related learning problems of their students. According to Smith and Knight (1997) collaboration of study team working for instructional evaluation and construction of solutions for challenging problems, significantly promoted general teaching efficacy of the group members.

Tschannen-Moran and Woolfolk-Hoy (2001) conducted a study to find out the impact of efficacy beliefs of teachers on their professional behavior. These researchers stated that having high sense of personal perceptions of professional skills exhibited confidence, took responsibility of teaching outcomes and were expected of their success. On the contrary, having low professional perfection beliefs of self-efficacy tended to relate teaching outcomes to external factors out of their control. Martin (2006) concluded that teachers having mastery over professional skills and high sense of self-efficacy beliefs, reflected proactive approach, controlling over context and in positive ways taking risk experimented instructional variety. Helsby (1995) concluded that low self-efficacy perceptions caused teachers more dependent upon external factors for teaching and to control over teaching contextual situation

skillfully. The results of the above described studies suggest that teachers who show high level efficacy beliefs upon their professional capabilities. They skillfully control the effects of external factors on learning and take personal responsibility for learning outcomes that reflects their commitment to teaching.

Hension (2001) conducted a study to observe the changes in experienced teachers' efficacy perceptions. Over a complete year of academic session no self-efficacy changes did occur during professional development among experienced teachers. Since Hension concluded, without long term professional development based on creating critical thinking skills about their instructional practices, efficacy cannot be enhanced. Palmer (2006) conducted a study to find out changes in self-efficacy of pre-service primary teachers. He concluded that teachers having less efficacy perceptions were less confident. They perceived their weaknesses to deal with the situation caused stress or anxiety. High-level efficacious teachers exhibited confidence. They confronted novel task skillfully.

Kelchmans (1996) concluded that educational policy implementation severely hurt teachers' emotions. Particularly, inquiring about their professional specialty and expert knowledge and also about soundness of their moral status caused emotional shock. It is concluded from the above discussion that desired reform changes grounded in teachers command over relevant subject and expertise in experimenting imaginative thinking. Teachers' sound moral character is considered a major source of achieving educational aims since efficacious teachers may build learners character on sound basis by modeling their noble character. Efficacious teachers' classic character may play vital role for students' character building. Impact of educational reforms on teachers' professional lives in England, identified that reforms had long-term adverse effects on teachers. Threatening perception of capabilities, and discouraging

democratic thinking and developing teachers' submissive behavior in an intangible way resulted from educational reforms. According to the findings and results of the above reforms research study teachers responded negatively towards educational reforms. Since educational reforms based on high level expert knowledge and fairness of character, teachers considered reforms threatening to their expertise in profession and a disclosing source for their privacy.

Soodak, Podell and Lehman (1988) concluded that teachers' possessing high level efficacy perceptions personal as well as general teaching efficacy were tended to place in the mainstream, the students having learning disabilities.

In the same manner, Podell and Soodak (1993) conducted a study to find out relationship between teaching efficacy, student SES and chance of referral to special education. These researchers concluded that less efficacious teachers for perceptions about self-capabilities were tended to refusal for regular education placement of low performing students belonging to low SES families. According to Goddard and Goddard (2001) Teachers' personal perception of being capable to perform a task may impact their teaching behavior that consequently increases greatly learning attainment. The results of the above discussed research studies suggest that teachers who indicated high self-efficacy beliefs upon their capabilities took responsibility of academic success of all learners regardless of their family trend towards education or students' pace of learning. They believe in their capabilities to impact even slow learners' pace of learning placing them in normal learners' classroom environment. They possess mastery over experimenting imaginative thinking to activate students' deep learning skills. The same results were found in the study of Brownell and Pajares (1999) these researchers conducted a study to find out the impact of teachers' efficacy perception on their teaching to special children. They concluded that teachers'

efficacy beliefs had a direct link to their expected success for teaching special children in mainstream.

These findings bear conclusion that teachers having high level of efficacious perception about their capabilities tended to exhibit that all learners are capable of learning regardless of their previous achievement level and family background. Ross (1994) conducted a meta-analysis of teachers' efficacy studies. He concluded that teachers possessing high level of efficacious perceptions for teaching tended to experiment innovative instructional practices. They targeted low achievers' needs that resulted in promoting their conception of being capable learners and high level academic success. High efficacious teachers set challenging but attainable goals, persisted on confronting failures. All these correlates of efficacy behaviors impact student achievement greatly.

Teachers at secondary level particularly, confronting a pressing demand for high-level academic attainment. Numerous studies found out significant relationship between teachers' perception of teaching capabilities and student achievement in general academics and particularly, content areas of reading and math. Armor *et al.*. (1976) conducted a study with the implication of Rand items to gauge the impact of teachers' self-perception about his or her capabilities upon reading scores on the California Test of Basic Skills. Over the period of one year high level efficacy teachers produced the greatest gain in students' reading scores.

Anderson, *et al.* (1988) conducted a study to examine the impact of teachers' perception of self-beliefs on student achievement and student efficacy beliefs. The subjects of the study included sixth grade teachers and students, as well as grade third teachers and students. The researchers observed a critical increase in student achievement due to teachers' high-level self-efficacy beliefs at third grade level.

Whereas, at grade six level no observable effects of teachers' efficacy beliefs were found to enhance students' academic achievement. Anyhow, a mark able impact of teachers' sense of efficacy was measured on students' efficacy beliefs at both grade levels.

Midgley *et al.* (1989) studied the impact of teachers' sense of efficacy on their students' efficacy beliefs. They found that teachers' sense of efficacy increased significantly students' self-efficacy. The study included measuring the change in students' thinking development in the subject of mathematics during the period of transitioning towards junior high school. It was observed, the students who moved from high to low efficacy math teachers exhibited the lowest level of efficacy beliefs for mathematics performance as well as undertaking challenging mathematics activities. The above discussion summarized that teachers' efficacy beliefs have direct effects upon their students' efficacy beliefs. Effective teachers create teaching learning environment that promote high level efficacy beliefs for attaining higher order academic achievement.

The social cognitive theory proposes that internal personal factors along with behavior and environment interact to influence each other through the belief of reciprocal determinism. It provides a base for research of classroom contextual variables and teacher efficacy.

Teachers do not exhibit same teaching behavior in all teaching contexts. Measurement of teaching efficacy beliefs is therefore highly context associated. According to Ross *et al.* (1996) in varying classroom situations teachers exhibit varying teaching behavior. These researchers concluded that teachers' efficacy varies in the same subject even from one class period to another class period. Similarly Raudenbush, *et al.* (1992) conducted a study to find out contextual effects on high

school teachers perceived self-efficacy. These researchers concluded, while teaching high achievers teachers exhibited strong sense of efficacy beliefs. Particularly, science teaches and math teachers showed stronger effect of efficacy beliefs as compared to English teachers and social studies teachers.

In the same manner Ross *et al.* (1996) found that teachers at secondary level exhibited a varied behavior within their core department courses and other than their central subjects.

Apart from classroom context variables, researchers have also identified school context variables that impact teachers' perception of efficacy beliefs. It has been established that administration behavior, school social climate and the way in which different parts of school organization are interdependently arranged to coordinate functioning have strong impact on teachers' self-efficacy. Chester and Beaudin (1996) studied the factors as working with other teachers, supervisory efforts to improve instructional practices and the level of resources availability in the school and found a strong impact of these factors on efficacy perception of newly appointed teachers.

Newmann, Rutter and Smith (1989) studied school organizational factors that play an important role to promote teachers efficacy beliefs. School climate fostered instructional innovative experimentation and teachers' devotion to collaborate with each other to produce desired educational outcomes. School leadership behavior towards teaching promoted learning culture. Teachers were found strongly linked to promote conducive climate for learning. it fostered teachers' sense of efficacy beliefs. Describing the impact of organizational support upon teacher leadership Lee *et al.* (1991) investigated schools social organizational factors impact on efficacy beliefs.

They concluded that school organization that render to enhance and support teacher leadership, promote teachers efficacy beliefs to high level.

Trentham *et al.* (1985) conducted a study to find out relationship between teacher efficacy and teacher competence rating. They established that a significant relationship exist between teachers sense of efficacy and their choice of profession and their professional competence.

Caprara *et al.* (2003) conducted a study to find out impact of teachers efficacy beliefs play a significant role to develop professional commitment and to promote and maintain their job satisfaction. Similarly Curral *et al.* (2000) conducted a study to find out the impact of teachers pay satisfaction on school outcomes. These researchers maintained that there exists a significant relationship between pay satisfaction and educational attainment at district level.

Ryan and Deci (2000) concluded that teachers' intrinsic motivation is directly linked to self-efficacy and job satisfaction that consequently promotes their professional development. On the other hand self-efficacy and job satisfaction, indirectly positively affected their performance that proved a source of pride and reward.

Research has been conducted to study relationship between gender and self-efficacy. Research findings show differential results. For example, Pajares and Miller (1994) reported that in the areas of mathematics, science, and technology males exhibited more confidence and performed better. Whereas, females showed comparatively low performance, in the same manner Eisenberg *et al.* (1996) reported that in the areas of mathematics, and sciences performance and achievement gaps due to gender are minor. Pajares (1996) reported that multiple factors are involved in efficacy beliefs grounded in gender differences. The researcher concluded, when

controlling previous level of academic attainment these differences diminished. Gender differences were observed when boys and girls expressed different attitudes while they responded efficacy beliefs scale.

Wigfield *et al.* (1996) reported that boys tended to express pleasure and proud for success whereas, girls were hesitant to express their pride for success. There is another factor that counts, the way how gender differences are measured and reported. Pajares *et al.* (1999) conducted a study to assess gender differences in writing self-beliefs of student at elementary level. These researchers employed the traditional fashioned way to elicit responses from students (having belief in writing skills) but also to express a comparative belief statement that show their writing capabilities level against that of other boys and girls in their class or school. The researchers conducted expression of beliefs at average level is interpreted as gender difference in perceiving efficacy beliefs.

Pajares and Valianate (studied grade level gender differences in writing self-beliefs at middle school level. The researchers maintained that girls' performance was better as boys performed. However, when students were asked to express their belief in their writing capabilities as compared to their peers, girls exhibited a belief in their writing capabilities as for better writers than the boys. Some researchers pointed out another factor that is associated with gender differences. Harter *et al.* (1997) argued that a gender difference established in social, personality, and academic variables are based on false notion about gender that students hold. In essence no gender differences exist. Whereas Eccles and Midgley (1989) concluded that students' at elementary stages exhibited little or no gender differences. Occurrences of differences appeared as the children entered to junior high school.

Wigfield *et al.* (1991) conducted a study to investigate children's self-perceptions and general self-esteem at junior high school level. The researchers maintained that at this particular stage girls were found losing their perceptions of efficacy beliefs. Shunk and Lily (1984) employed another approach to find out sex differences in self-efficacy of students of grade 6 and grade 8 for learning a new mathematical task. The students from both grades expressed their beliefs of efficacy perceptions. Then, learners were provided instruction, exercise practice, and right kind of feedback. The girls were found less efficacious at early stage. When receiving instructional program, the girls performed equally well and no differences were observed.

Researchers maintain that students' interest and expertise in particular subject areas varies generally for male and female student. Therefore, male students are considered having dominant command in the areas of mathematics, sciences and technologies (Eisenberg *et al.*, 1996). These findings are in line with the research findings of a study conducted by Hackett (1985). The researcher found a strong inclination of male students for the choice of mathematics and math related subjects in the college. In the same manner Eccles (1987) maintained that males exhibited an interest for the areas math related subjects and girls were observed showing a keen interest in language and writing. Anyhow, according to the findings of the research studies conducted to investigate gender self-beliefs and its impact on gender differences in academic settings, is an exciting and challenging task to change students' self-perceptions about their capabilities, that males and female are equally capable of learning all types of subjects.

2.12.1 Self-efficacy and Its Impact on Students' Academic Achievement in General

Zimmerman (1989a) conducted a study to investigate students' motivation and self-regulated learning strategies grounded in students' self-efficacy. The study was conducted on the assumption that self-efficacy beliefs keep the students on task trying different strategies to master the content for higher-level academic achievement. The researcher concluded that high efficacious teachers provided optimal learning environment, developed learning strategies among students that promoted their self-efficacy beliefs which positively impacted their learning.

Research studies indicated that teachers possessing higher self-efficacy beliefs upon their capabilities promoted their students' self-efficacy perceptions for better learning, performance and academic achievement. Danier and dweck (1978) conducted a research study which indicated that teachers who promoted students' efficacy beliefs, provided feedback developed self-monitoring strategies showed higher order academic achievement.

Zimmerman and Martinez-Pons (1988) conducted a study about students self – regulations and its impact upon students' achievement in the subject of Mathematics and English. The researchers summarized that teachers high in self-efficacy beliefs developed their students' self-regulation for classroom learning. Self-regulated students were motivated and committed to perform in Mathematics and learning English language. Marsh (1986) conducted a study at elementary through higher secondary level to investigate students' self-efficacy for verbal and Mathematical performance. Marsh concluded that efficacious teachers promoted students' motivation and on task persistence that increased students' self-efficacy for learning Mathematics. Paris and Byrnes (1989) conducted a research study about students'

self-efficacy for Mathematical performance. These researchers observed a decline in students' self-efficacy as they preceded their studies at secondary level. According to these researchers the decline in students' self-efficacy beliefs occurred due to competitive grade culture in the secondary classrooms.

2.12.2 Gender Differences in Mathematics

Maccoby and Jacklin (1974) summarized their research findings about gender differences in Mathematics self-efficacy. These researchers indicated that male students performed better compared to female students in the subject of Mathematics. In the mathematics verbal capability test female students' verbal ability was found not low as compared to male students' Mathematical verbal capability. Shunk,D.H. (1982) investigated effort related feedback concerning past achievement and its impact upon students' self-efficacy and Mathematical learning, performance and academic achievement. The researcher concluded that effort related feedback about previous Mathematics achievement promoted self-efficacy beliefs that resulted in greater Mathematics skill development. Gender differences were not significant. The study further indicated that effort related experimentation promoted students' self-efficacy and mathematics achievement without gender differences. Zimmerman and Martinez-Pons (1990) conducted study to find out differences in self-regulated learning and grade and sex related differences in Mathematics achievement. The results of the study indicated the impact of self-regulated learning strategies upon students' self-efficacy for verbal and Mathematical academic achievement. Gender differences were also observed. Male students performed better as compared to female students.

Pajares and Miller (1994) conducted a research study to assess the role of self-efficacy Mathematics learning and performance. The results of the study indicated

that students' efficacy beliefs positively impacted their performance and achievement in the subject of Mathematics. Gender differences were observed. Male students' performance was slightly higher as compared to female students' performance.

2.12.3 Self-efficacy for English with Gender and Location

Rahil Mayuddin et al. (2006) conducted a research study to assess the level of efficacy beliefs of students' to learn the English language. The sample of the research study included the schools from urban and rural areas. The findings of the study indicated girls' higher self-efficacy for learning English language. Female academic achievement was higher as compared to male students' academic achievement in English. It was further noted that urban areas students performed better as compared to their rural counterparts. Pajares (1996) summarized the findings of a research study conducted to assess gender differences for learning the English language. The study indicated female strong efficacy beliefs for learning the English language. The researcher declared that the English language learning and writing is a female domain.

Noran et al. (1993) reported the findings of their study conducted to find out psychological factors in the English language learning. Female students indicated more positive attitude towards learning the English language as compared to male students. Anyhow, Bussy and Bandura (1999) concluded that gender differences for learning the English language were minor.

Raudenbush et al. (1992) declared that efficacy beliefs were highly context specific. The results of the study indicated that teachers' efficacy beliefs varied due to different causes and situation in which teachers performed the researchers found teachers' self-efficacy beliefs fluctuating over a period of time during the teaching semester. Riggs (1990) indicated those teachers' beliefs about their capabilities to

impact the learning of their students' strong relationship with students' academic achievement.

2.12.4 Self-efficacy Studies in Pakistan

Some researchers conducted research studies about self-efficacy in Pakistan. Tayyaba Shahzadi et al. (2011) conducted a study to find out how the demographic factors like age, sex, academic and professional level of education and experience to classroom teaching impacted teachers' perceptions about their capabilities. These researchers concluded that female teachers showed higher level of efficacy perceptions as compared to male teachers. These researchers further marked that female teachers were more capable to produce desired learning out comes. They pointed out that teachers in the urban areas perceived themselves more respected in the society as compared to the teachers working in the countryside. Concerning advanced education how it affected teachers' perceptions about their capabilities, it was summed up that professional as well as academic qualification promoted teachers' self-belief. More experienced teachers exhibited higher level of self-efficacy. Age factor indicated no effect upon teachers' efficacy scoring. In line with these findings Naushaba Atta et al, (20012) conducted a study to examine the impact of gender role and teaching experience upon teachers' self-efficacy. The researchers concluded that female teachers exhibited more efficacy beliefs as compared male teachers. They further declared that in culture of Pakistan female teachers proved themselves most excellent individuals for teaching profession. Female indicated high tendency for parental participation. It was further added that experience promoted efficacy beliefs among male teachers as well as female teachers. Rubina Anjum (2000), conducted a study to observe the effect of mathematics self-efficacy upon mathematics achievement at primary level. The researcher found out noteworthy

positive impact upon mathematics attainment. The researcher further explained that students at primary level perceived themselves strong to perform mathematical activities. Male and female students uniformly exhibited high level efficacy beliefs to encounter mathematics challenges. Anyhow the girls were very sensitive towards the accuracy of their efficacy perceptions to face the mathematics challenges. It was concluded that girls showed a sound and reliable trend about their perceived performance in mathematics.

Summary

Teacher self-efficacy is identified as one of the most important factors that can make a difference in students' learning and academic achievement. Most of the research studies proved teachers' efficacy beliefs closely related to their classrooms teaching behaviors, openness to new ideas, and experimentation for innovative teaching.

Research studies conducted to assess the level of teachers' beliefs about their capabilities for teaching their students supported the concept that teacher efficacy beliefs positively affected students' learning and the level of their academic achievement. Teachers high in self-efficacy beliefs were persistent, committed to promote meaningful learning, less likely to criticize students for their learning deficiencies.

Teachers may have similar command over their related subject content but they vary greatly in skills to transmit knowledge to their students; therefore, efficacy beliefs of teachers are stronger predictors of teaching behaviors in the classroom and its impact upon students' learning and academic achievement. Teachers higher in self-efficacy perceptions invested more time and harder efforts to experiment innovative instructional strategies, which resulted in better learning and academic achievement

level. On the other hand less efficacious teachers were found less persistent with little or no motivation to consume more time and any outstanding effort to achieve higher order learning outcomes.

Research studies related to teacher self-efficacy indicated its direct relationship with students' learning outcomes. Teachers' efficacy perception level can affect effort, priorities for innovative instructional strategies, professional preparation and classroom behavior that consequently promote academic achievement. Gender differences in teacher efficacy beliefs and its impact upon the academic performance of their students were also observed. It was reported that girls have higher self-efficacy in the English language as compared to boys. Students in the rural areas showed weaker self-efficacy as compared to urban students' efficacy beliefs reported. Girls performed better in the English language learning and writing. Many research studies labeled the English language learning and writing the domain of the girls.

Most of the research studies about teacher self-efficacy and its impact upon students' learning were conducted in the foreign countries; only a few researches were carried out in Pakistan at secondary level. The results of the foreign studies indicated positive effects of teachers' efficacy beliefs upon students' learning. Therefore, the present study was conducted to investigate the impact of teacher efficacy beliefs upon students' learning and performance in the context of Pakistan at secondary level.

CHAPTER 3

RESEARCH METHDOLOGY

The study aimed at assessing the self-efficacy beliefs of teachers at secondary school level and their relationship with students' academic achievement in Pakistan. The major objective of the study was to measure secondary school teachers' efficacy beliefs for teaching their students' academic achievement gender wise and location wise and to measure relationship between teachers' self-efficacy and students' academic achievement.

It is a correlation research study. Therefore, the present chapter of the research (chpter-3) included the research methodology, the analysis of the relationship between teachers' perception about their capabilities for teaching in the classroom and students' academic achievement. The brief description of school settings (the sample schools), students' sampling, validation and reliability of the adopted instrument, data collection and data analysis were included in this chapter of the present research.

This is a descriptive research study in which survey method was used to collect quantitative data. The study involved two variables, the teachers' efficacy beliefs independent variable and students' academic achievement scores as a dependent variable. To collect teachers' efficacy beliefs about their capabilities for teaching written questionnaire was employed. Data on teachers' perceptions were gathered on five point rating scale. Teachers' efficacy beliefs scores were correlated with students' academic achievement scores in the relevant subject either the

students' scores in the English or the Mathematics scores to calculate the relationship between the independent variable and dependent variable.

Mathematics is one of the core subjects document issued by Ministry of Education (2000), whereas English has become international and diplomatic language. It is an important tool for learning and research sectors (Curriculum wing document 2002). The document further stated to fulfill the objectives of educational policy (1998 – 2010) by launching in-service teachers and master trainers training programs to increase the effectiveness of the mathematics teachers and English teachers at secondary level in the country. Huge amounts are being incurred on teachers training. No significant positive difference was observed in students' academic achievement in the subject of Mathematics and English. Board's results document indicated it over the years. That is why Mathematics teachers and English teachers were included in the present study.

3.1 Population

Population of the study consisted of the following:

- All the teachers teaching 10^{th} class in public sector secondary schools in all four provinces of Pakistan. Therein estimated number was 34152.
- All the students who appeared in the annual 2009 secondary school certificate examination of various boards of intermediate and secondary education (BISE) in all the provinces of Pakistan. Therein estimated number was 308947.

3.2 Sample

Sample of the study consisted of 3072 participants. Stratified sampling technique was used in the present study. Since the subgroups male and female, rural and urban were involved, the researcher selected equal-sized samples from each of a

number of subgroups. According to Gay (2000) stratified sampling technique is used when identical subgroups (male and female, rural or urban etc.) are involved. Subgroups are represented in the sample in the same proportion that they exist in the population. It can also be used equal-sized sample from each of a number of subgroups if subgroups comparisons are desired. Since different strata were made to achieve the objectives of the study for example rural vs urban and male vs female, therefore equal proportion stratified sampling was done.

The sample of the study consisted of 3072 participants with a break up of 512 teachers and 2560 students from all over the country. The detail of the sample is given in the following table.

3.2.1 Teachers sampling

S. No.	*District*	*Subject*	*Sex*	*Rural*	*Urban*	*Total*
1	Chakwal	Math	Male	4	4	8
			Female	4	4	8
		English	Male	4	4	8
			Female	4	4	8
2	Attock	Math	Male	4	4	8
			Female	4	4	8
		English	Male	4	4	8
			Female	4	4	8
3	Mianwali	Math	Male	4	4	8
			Female	4	4	8
		English	Male	4	4	8
			Female	4	4	8
4	Lahore	Math	Male	-	8	8
			Female	-	8	8
		English	Male	-	8	8
			Female	-	8	8
5	Leyyah	Math	Male	4	4	8
			Female	4	4	8
		English	Male	4	4	8
			Female	4	4	8
6	Muzaffar Garh	Math	Male	4	4	8
			Female	4	4	8
		English	Male	4	4	8
			Female	4	4	8
7	Jacobabad	Math	Male	4	4	8

			Female	4	4	8
		English	Male	4	4	8
			Female	4	4	8
8	Mirpur Khas	Math	Male	4	4	8
			Female	4	4	8
		English	Male	4	4	8
			Female	4	4	8
9	Hyderabad	Math	Male	4	4	8
			Female	4	4	8
		English	Male	4	4	8
			Female	4	4	8
10	Karachi	Math	Male	-	8	8
			Female	-	8	8
		English	Male	-	8	8
			Female	-	8	8
11	Peshawar	Math	Male	4	4	8
			Female	4	4	8
		English	Male	4	4	8
			Female	4	4	8
12	Bannu	Math	Male	4	4	8
			Female	4	4	8
		English	Male	4	4	8
			Female	4	4	8
13	Lakki	Math	Male	4	4	8
			Female	4	4	8
		English	Male	4	4	8
			Female	4	4	8
14	Karak	Math	Male	4	4	8
			Female	4	4	8
		English	Male	4	4	8
			Female	4	4	8
15	Sibi	Math	Male	4	4	8
			Female	4	4	8
		English	Male	4	4	8
			Female	4	4	8
16	Quetta	Math	Male	-	8	8
			Female	-	8	8
		English	Male	-	8	8
			Female	-	8	8
		Total		208	304	512

The table indicates that 512 teachers from all over the country were included in the study. It is revealed from the table that teachers were divided in to male and

female categories. Half of the teachers were male and half of them were females. Similarly, teachers were further divided into location wise i.e. rural and urban.

From all over the country 16 districts were included in the sample of this study. From each sample district 32 teachers were selected. Out of these 32 teachers 16 were Mathematics teachers and 16 English. Teachers of both the subjects were further divided in to male and female equal in numbers i.e. 8 English male and 8 female teachers. In the same order 8 Mathematics male teachers and 8 female were included. Similarly, teachers of both the subjects were further categorized location wise i.e. rural male and rural female and urban male and urban female. Areas of Lahore city district, Karachi city district and Quetta city district did not contain rural areas. Therefore, the researcher included all 32 teachers from urban areas of each city district. Due to the sample of teachers from these three city districts, location wise sample of teachers from all over the country comprised of 208 rural teachers and 304 urban teachers.

From each school, two teachers (One Math Teacher and one English Teacher) who were teaching the 10^{th} class from start of the academic calendar year i.e. from 1^{st} April to end of the one year academic session and ten students from that selected class were included in the sample by purposive sampling technique. Students were selected on the basis at least 75% of the class attendance of the particular teacher.

In case, the same teacher was teaching both the subjects i.e. Mathematics and English to that particular class, the researcher included another school in the sample of the study that fulfilled the required criteria i.e. one teacher from each subject in lieu thereof.

3.2.2 Students sampling

S.No	*District*	*Subject*	*Sex*	*Rural*	*Urban*	*Total*
1.	Chakwal	Math	Male	20	20	40
			Female	20	20	40
		English	Male	20	20	40
			Female	20	20	40
2.	Attock	Math	Male	20	20	40
			Female	20	20	40
		English	Male	20	20	40
			Female	20	20	40
3.	Mianwali	Math	Male	20	20	40
			Female	20	20	40
		English	Male	20	20	40
			Female	20	20	40
4.	Lahore	Math	Male	-	40	40
			Female	-	40	40
		English	Male	-	40	40
			Female	-	40	40
5.	Leyyah	Math	Male	20	20	40
			Female	20	20	40
		English	Male	20	20	40
			Female	20	20	40
6.	Muzaffar Garh	Math	Male	20	20	40
			Female	20	20	40
		English	Male	20	20	40
			Female	20	20	40
7.	Mirprur Khas	Math	Math	20	20	40
			Female	20	20	40
		English	Male	20	20	40
			Female	20	20	40
8.	Jacobabad	Math	Male	20	20	40
			Female	20	20	40
		English	Male	20	20	40
			Female	20	20	40
9.	Hyderabad	Math	Male	20	20	40
			Female	20	20	40
		English	Male	20	20	40
			Female	20	20	40
10.	Karachi	Math	Male	-	40	40
			Female	-	40	40
		English	Male	-	40	40
			Female	-	40	40
11.	Peshawar	Math	Male	20	20	40
			Female	20	20	40
		English	Male	20	20	40

			Female	20	20	40
12.	Bannu	Math	Male	20	20	40
			Female	20	20	40
		English	Male	20	20	40
			Female	20	20	40
13.	Lakki	Math	Male	20	20	40
			Female	20	20	40
		English	Male	20	20	40
			Female	20	20	40
14.	Karak	Math	Male	20	20	40
			Female	20	20	40
		English	Male	20	20	40
			Female	20	20	40
15.	Sibi	Math	Male	20	20	40
			Female	20	20	40
		English	Male	20	20	40
			Female	20	20	40
16.	Quetta	Math	Male	-	40	40
			Female	-	40	40
		English	Male	-	40	40
			Female	-	40	40
			Total	1040	1520	2560

The above table indicates that 2560 students were included in this study from 16 districts of the country. It is revealed by the table that total sample of the students was further divided in to rural and urban students. As reflected by the table, 1040 students were included from rural and 1520 students from urban schools. The difference in numbers of students from urban and rural schools was due to the inclusion of the Lahore city district, Karachi city district and City district Quetta in the sample of the study. It is further explained that these three districts do not contain rural areas. Therefore the researcher included 160 students from each city district. From other districts except aforesaid three city districts, equal number of students i.e. 80 students from urban schools and 80 students from rural schools were included in the sample of the study.

3.2.3 Sample of Schools

Sr. No.	District	No. of school from each district @ 8 male and 8 female	Rural	Urban	Total
1.	Chakwal	1×8 Male schools	4	4	8
		1×8 Female schools	4	4	8
2	Attock	1×8 Male schools	4	4	8
		1×8 Female schools	4	4	8
3.	Mianwali	1×8 Male schools	4	4	8
		1×8 Female schools	4	4	8
4	Lahore	1×8 Male schools	-	8	8
		1×8 Female schools	-	8	8
5.	Leyyah	1×8 Male schools	4	4	8
		1×8 Female schools	4	4	8
6	Muzaffar Garh	1×8 Male schools	4	4	8
		1×8 Female schools	4	4	8
7	Jacobabad	1×8 Male schools	4	4	8
		1×8 Female schools	4	4	8
8	Mirpur Khas	1×9 Male schools	4	4	8
		1×8 Female schools	4	4	8
9	Hyderabad	1×8 Male schools	4	4	8
		1×8 Female schools	4	4	8
10	Karachi	1×8 Male schools	-	8	8
		1×8 Female schools	-	8	8
11	Peshawar	1×8 Male schools	4	4	8
		1×8 Female schools	4	4	8
12	Bannu	1×8 Male schools	4	4	8
		1×8 Female schools	4	4	8
13	Lakki	1×8 Male schools	4	4	8
		1×8 Female schools	4	4	8
14	Karak	1×8 Male schools	4	4	8
		1×8 Female schools	4	4	8
15	Sibi	1×8 Male schools	4	4	8
		1×8 Female schools	4	4	8
16	Quetta	1×8 Male schools	-	8	8
		1×8 Female schools	-	8	8
Total			120	136	256

The above table shows that 256 schools were included in the study. Furthermore 120 schools were included from rural areas and 136 schools from urban areas. As stated before due to three city districts the number of rural and urban

schools was different. It is further explained that half of the sample schools consisted of female schools.

3.3 Translation of the Instrument

Since this tool was very suitable for measuring teachers' beliefs about their personal capabilities to teach their students in the classroom therefore the researcher studied the questionnaire minutely and found it appropriate to use for classroom teaching situation in the context of Pakistan. Under instrument items are measuring the dimensions: classroom management, students' engagement in the classroom and instructional strategies. There are 24 items on the instrument Teachers' Sense of Efficacy Scale. The scale consisted on three sub factors: Efficacy in Student Engagement, items on the instrument 1, 2, 4, 6, 9, 12, 14, and 22. Efficacy in Instructional Strategies consisted on items 7, 10, 11, 17, 18, 20, 23, and 24. Efficacies in Classroom Management items on the instrument are 3, 5, 8, 13, 15, 16, 19, and 21.

The questionnaire was translated in Urdu Language in the frame of Tschannen–Moran and Hoy, (2001) teacher efficacy scale. Developed tool was then pilot tested and consulted with the supervisor and experts committee. Thus, finalized tool was applied for data collection. Five point rating scale was used to collect the teachers efficacy beliefs.

In order to refine the questionnaire and make it understandable, teachers' collected opinions of understanding about the questionnaire presented to supervisory committee for correction and improvement. The process of refinement of the questionnaire underwent till it took its understandable final shape applicable for data collection on national level in the context of Pakistan. Authors of Teachers' Sense of Efficacy Scale designed the original questionnaire to acquire proper understanding of teachers' opinion about the difficulties the teachers encounter in their school

activities. In long form of the Teachers' Sense of Efficacy Scale the authors included twenty four statements in order to elicit teachers' opinions on nine point rating scale. According to the context of Pakistan, in pilot testing the teachers expressed their proper understanding of the questionnaire on five point rating scale. For this very reason the expert committee recommended to administer the questionnaire on five point rating scale. The five point rating scale proved more convenient for Pakistani teachers to express their opinions for the present study.

The expert committee consisted of the following experts:

1. Professor Dr. Khalid Hassan Bukhari, Head Deptt. of Education IIUI.
2. Prof. Dr. A.R. Saghir, Deptt. of Education, IIUI.
3. Assistant Prof. Dr. Syed Asad Abbas Rizvi, Deptt. of Education, IIUI.

Student academic achievement was determined by the relevant school record.

Reliability of the instrument

Teacher efficacy scale developed by Tschannen – Moran and Hoy (2001) was adopted in Urdu language according to the context of Pakistan. Therefore, the reliability of the adopted instrument (Urdu version) was conducted by calculating the coefficient of reliability. SPSS software was used to calculate Cronbach's alpha. The general alpha coefficient is 0.93. The alpha reliability coefficients of three sub factors are indicated:

A. The alpha reliability coefficient related to "classroom management" sub factor: 0.84
B. The alpha reliability coefficient related to the "student engagement in class "0.82.
C. The alpha reliability coefficient related to the "using instructional strategies" sub factor: 0.86.

3.4 DATA COLLECTION

The researcher traveled through target area of sample in order to administer the questionnaire to get high rate of return. The data collection stage was very

difficult for the researcher. The researcher had to personally visit most of the sample areas throughout the country. In order to collect teacher opinion about their efficacy beliefs the researcher used Tschannen-Moran and Hoy (2001) efficacy tool developed in Urdu version for this purpose. Data about students' academic achievement were collected from the relevant school record of the target schools. The data collection particularly from the province of Baluchistan was a challenging task due to unrest in that province. So the researcher had to take up several attempts to collect data from remote areas of Baluchistan. Data collection particularly from female schools caused a lot of problems.

3.5 Assessment of Teacher Efficacy

Determination of self-efficacy of teachers' was based on the total score of an individual teacher in all 24 items on the rating scale. That is out of 120 scores on the likert scale. Out of 120 overall scoring, the score obtained by a particular teacher is his or her individual score.

3.6 Null Hypotheses

In the study the following null hypothesis were tested for each district:

Ho: 1 There is no significant relationship between teachers' self-efficacy and students' academic achievement.

Ho: 2 There is no significant relationship between teachers' self-efficacy and students' academic achievement gender wise in the subject of Mathematics.

HO: 3 There is no significant relationship between teachers' self-efficacy and students' academic achievement gender wise in the subject of English.

HO: 4 There is no significant relationship between teachers' self-efficacy and students' academic achievement location wise in the subject of Mathematics.

Ho: 5 There is no significant relationship between teachers' self-efficacy and students' academic achievement location wise in the subject of English.

3.7 Data Analysis

In order to draw the conclusion, the collected data were analyzed and presented in the form of tables. The researcher used Pearson r Product Moment to test each research question or hypothesis in the present study as according to Garrett (1967). Teachers' efficacy scores were correlated with their related students' achievement scores in the relevant subject. The following criteria applied to determine the degree or closeness of relationship between two variables:

r from .00 to + .20 or r from .00 to - 0.20 denotes no relationship.

r from + .20 to + .40 or r from -0.20 to -0.40 denotes low correlation.

r from + .40 to + .70 or r from – 0.40 to -0.70 denotes substantial relationship.

r from + .70 to + 1.00 or r from -0.70 to -1.00 indicate high or very high relationship.

Students' achievement test scores that were used to correlate teachers' self-efficacy were obtained from "Board of Intermediate and Secondary Education " results document of Secondary School Certificate Examination annual 2009. The detail of the students' academic achievement scores subject wise in the subject of the English and that of Mathematics were obtained from their schools records.

CHAPTER 4

DATA ANALYSIS AND DISCUSSION

This chapter deals with the data obtained at national level, from all four provinces of the country. The researcher collected teachers' perceptions about their capabilities to teach their students. In order to assess the impact of teacher's belief about their capabilities upon students' academic performance and achievement, the researcher also collected student's results from the schools record. The next step is to organize data for analysis to interpret data and drawing conclusions for generalization to make meaningful picture. Data analysis involves studying the tabulated teacher's efficacy belief scores and students' achievement score in the Secondary School Certificate Examination conducted by all the Boards of Intermediate and Secondary Education from all four provinces of the country in spring 2009. The topic of the study was Teachers Self efficacy and Students Academic Achievement at Secondary School Level in Pakistan. The main purpose of the study was to measure teachers' beliefs about their capabilities for teaching their students and its relationship with students' academic achievement. In order to find out relationship between teachers self-efficacy and student academic achievement Pearson r Product Moment was used.

To study the impact of teachers' self-efficacy beliefs upon the academic achievement of the students null hypotheses were formulated which asserted that therein no significant relationship to be found between teacher's self-efficacy and

students' academic achievement. Since there involved two variables i.e. teacher efficacy beliefs and students achievement, Pearson r, is appropriate when both variables to be correlated are expressed in the form of interval data. The null hypotheses were tested at 0.05 level of significance, at district level. The summaries of results are presented in following tables with their interpretations.

Ho: 1. There is no significant relationship between teachers' self-efficacy and students' Academic achievement in the subject of Math and English

Table 1: Relationship Between Teachers' Self Efficacy and Students' Academic Achievement in District Chakwal

Subject	Group	N	Mean	SD	Pearson "r"	p-value
Math	Teachers' self- efficacy	16	92.81	10.02	0.582*	0.018
	Students' achievement	80	53.39	4.057		
English	Teachers' self- efficacy	16	94.06	9.15	0.807**	0.000
	Students' achievement	80	54.045	9.457		

Table 1 shows that Pearson r value (0.582) was found to be significant at 0.05 level. Thus, null hypothesis No. 1 was rejected and it was concluded that there was a positive correlation between teachers' self-efficacy and students' academic achievement in the subject of Math. Likewise, Pearson r value (0.807) was found to be significant at 0.05 level in the subject of English. Thus, null hypothesis No. 1for the subject of English was rejected and it was concluded that there was a positive correlation between English teachers' self-efficacy and students' academic achievement in the subject of English.

Ho: 2 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of Math.

Table 2: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of Math in district Chakwal

Gender	*Group*	*N*	*Mean*	*SD*	*Pearson "r"*	*p-value*
Male	Teachers' self-efficacy	8	97.25	9.21	0.418	0.303
	Students' achievement	40	55.375	3.157		
Female	Teachers' self- efficacy	8	88.37	9.24	0.493	0.214
	Students' achievement	40	51.405	4.037		

Table 2 shows that Pearson r value (0.418) was found to be non-significant in the subject of Math. Thus, null hypothesis No.2 for Math male teachers was accepted and it was concluded that there was non-significant positive correlation between male Math teachers' self-efficacy and male students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.493) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.2 was accepted for female Math teachers and it was concluded that there was non-significant positive correlation between female Math teachers' self-efficacy and female students' academic achievement in the subject of Mathematics.

Ho: 3 There is no significant relationship between teachers' self-efficacy and students' Academic achievement (gender wise) in the subject of English

Table 3: Relationship Between Teachers' Self Efficacy and Students' Academic Achievement Gender wise in the subject of English in district Chakwal

Gender	**Group**	**N**	**Mean**	**SD**	**Pearson "r"**	**p-value**
Male	Teachers' self-efficacy	8	91.87	9.18	0.644	0.085
	Students' achievement	40	52.905	8.9		
Female	Teachers' self- efficacy	8	96.25	9.17	0.934**	0.001
	Students' achievement	40	56.687	10.212		

Table 3 shows that Pearson r value (0.644) was found to be non-significant in the subject of English. Thus, null hypothesis No.3 for English male teachers was accepted and it was concluded that there existed non-significant relationship between

male teachers' self-efficacy and male students' academic achievement in the subject of English. On the other hand Pearson r value (0.934) was found to be significant at 0.05 level in the subject of English. Thus, null hypothesis No.3 for female English teachers was rejected and it was concluded that there existed significant relationship between female teachers' self-efficacy and female students' academic achievement in the subject of English.

Ho: 4 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of Math

Table 4: Relationship between teachers' self-efficacy and students' academic Achievement Location wise in the subject of Math in district Chakwal

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	92.00	10.12	0.814*	0.014
	Students' achievement	40	50.78	3.582		
Urban	Teachers' self- efficacy	8	93.62	10.54	0.590	0.124
	Students' achievement	40	56.00	2.612		

Table 4 shows that Pearson r value (0.814) was found to be significant in the subject of Math at 0.05 level. Thus, null hypothesis No.4 for rural Math teachers was rejected and it was concluded that there existed a significant relationship between rural Math teachers' self-efficacy and rural students' academic achievement in the subject of Mathematics. On the other hand Pearson r value (0.590) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.4 for urban Math teacher was accepted and it was concluded that there existed non-significant relationship between urban Math teachers' self-efficacy and urban students' academic achievement in the subject of Mathematics.

Ho: 5 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of English

Table 5: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of English in district Chakwal

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	93.75	9.42	0.747	0.033
	Students' achievement	40	51.875	8.765		
Urban	Teachers' self- efficacy	8	94.37	9.52	0.925	0.001
	Students' achievement	40	57.716	9.762		

Table 5 shows that Pearson r value (0.747) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.5 for English teachers was rejected and it was concluded that there was a significant positive relationship between rural teachers' self-efficacy and rural students' academic achievement in the subject of English. Likewise Pearson r value (0.925) was found to be significant at 0.05 level in the subject of English. Thus, null hypothesis No.5 for urban English teachers was rejected and it was concluded that there existed a significant relationship between urban teachers' self-efficacy and urban students' academic achievement in the subject of English.

Ho: 1 There is no significant relationship between teachers' self-efficacy and students' Academic achievement in the subject of Math and English

Table 6. Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement in district Attock

Subject	Group	N	Mean	SD	Pearson "r"	Sig
Math	Teachers' self-efficacy	16	91.81	9.91	0.713**	0.002
	Students' achievement	80	53.827	4.58		
English	Teachers' self-efficacy	16	92.68	9.03	0.906**	0.000
	Students' achievement	80	55.53	8.205		

Table 6 shows that Pearson r value (0.713) was found to be significant in the subject of Mathematics at 0.05 level. Thus, null hypothesis No.1 for Math teachers was rejected and it was concluded that there existed a positive significant relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.906) was found to be significant at 0.05 level in the subject of English. Thus, null hypothesis No.1 for English teachers was rejected and it was concluded that there existed a significant relationship between teachers' self-efficacy and students' academic achievement in the subject of English.

Ho: 2 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of Math

Table 7. Relationship Between Teachers' Self-efficacy and Students' Academic Achievement Gender wise in the subject of Math in district Attock

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	95.87	9.31	0.809*	0.015
	Students' achievement	40	55.187	3.39		
Female	Teachers' self-efficacy	8	87.75	9.28	0.622	0.100
	Students' achievement	40	52.467	5.407		

Table 7 shows that Pearson r value (0.809) was found to be significant in the subject of Math at 0.05 level. Thus, null hypothesis No.2 for Math male teachers was rejected and it was concluded that there existed a positive significant relationship between male teachers' self-efficacy and male students' academic achievement in the subject of Mathematics. On the other hand Pearson r value (0.622) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.2 for Math female teachers was accepted and there was no significant positive correlation between female teachers' self-efficacy and female students' academic achievement in the subject of Mathematics.

Ho: 3 There is no significant relationship between teachers' self-efficacy and students' Academic achievement (gender wise) in the subject of English

Table 8: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of English in district Attock

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	91.12	9.28	0.889**	0.003
	Students' achievement	40	53.812	7.68		
Female	Teachers' self- efficacy	8	94.25	9.11	0.920**	0.001
	Students' achievement	40	57.25	8.862		

Table 8 shows that Pearson r value (0.889) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.3 for male English teachers was rejected and it was concluded that there existed a significant positive correlation between male teachers' self-efficacy and male students' academic achievement in the subject English. Likewise, Pearson r value (0.920) was found to be significant in the subject of English. Thus, null hypothesis No.3 for English female teachers was rejected and it was concluded that there existed a significant positive relationship between female teachers' self-efficacy and female students' academic achievement in the subject of English.

Ho: 4 There is no significant relationship between teachers' self-efficacy and students'Academic achievement (location wise) in the subject of Math

Table 9: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of Math in district Attock

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	91.62	10.28	0.961**	0.000
	Students' achievement	40	51.092	3.885		
Urban	Teachers' self- efficacy	8	92.00	10.24	0.815*	0.014
	Students' achievement	40	56.562	3.575		

Table 9 shows that Pearson r value (0.961) was found to be significant in the subject of Mathematics at 0.05 level. Thus, null hypothesis No.4 for rural Math teachers was rejected and it was concluded that there existed a significant relationship between rural teachers' self-efficacy and rural students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.815) was found to be significant in the subject of Mathematics. Thus, null hypothesis No.4 for urban Math teachers was rejected and it was concluded that there existed a positive significant relationship between urban teachers' self-efficacy and urban students' academic achievement in the subject of Mathematics.

Ho: 5 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of English

Table 10: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of English in district Attock

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	92.37	9.45	0.864**	0.006
	Students' achievement	40	54.655	8.07		
Urban	Teachers' self- efficacy	8	93.00	9.22	0.953**	0.000
	Students' achievement	40	56.405	8.795		

Table 10 shows that Pearson r value (0.864) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.5 for rural English teachers was rejected and it was concluded that there existed a significant positive relationship between rural teachers' self-efficacy and rural students' academic achievement in the subject of English. Likewise Pearson r value (0.953) was found to be significant in the subject of English. Thus, null hypothesis No.5 for urban English teachers was rejected and it was concluded that there was a significant relationship between urban teachers' self-efficacy and urban students' academic achievement in the subject of English.

Ho: 1 There is no significant relationship between teachers' self-efficacy and students' academic achievement in the subject of Math and English

Table 11: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement in district Mianwali

Subject	Group	N	Mean	SD	Pearson "r"	p-value
Math	Teachers' self- efficacy	16	96.43	9.11	0.594*	0.015
	Students' achievement	80	54.765	8.217		
English	Teachers' self- efficacy	16	96.81	9.06	0.681*	0.004
	Students' achievement	80	56.437	7.825		

Table 11 shows that Pearson r value (0.594) was found to be significant in the subject of Math at 0.05 level. Thus, null hypothesis No.1 for Math teachers was rejected and it was concluded that there existed a positive correlation between teachers' self-efficacy and students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.681) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.1 for English teachers was rejected and it was concluded that there a significant positive relationship between teachers' self-efficacy and students' academic achievement in the subject of English.

Ho: 2 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of Math

Table 12: Relationship between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of Math in district Mianwali

Gender	Group	N	Mean	SD	Pearson r"	p-value
Male	Teachers' self-efficacy	8	98.00	9.47	0.535	0.172
	Students' achievement	40	56.405	8.417		
Female	Teachers' self- efficacy	8	94.87	9.09	0.627	0.096
	Students' achievement	40	53.125	7.852		

Table 12 shows that Pearson r value (0.535) was found to be non-significant in the subject of Mathematics at 0.05 level of significance. Thus, null hypothesis No.2 for male Math teachers was accepted and it was concluded that there existed no

significant relationship between male teachers' self-efficacy and their male students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.627) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.2 for Math female teachers was accepted and it was concluded that there existed non-significant correlation between female teachers' self-efficacy and female students' academic achievement in the subject of Mathematics.

Ho: 3 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of English

Table 13: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of English in district Mianwali

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	95.75	9.11	0.500	0.207
	Students' achievement	40	56.5	7.755		
Female	Teachers' self- efficacy	8	97.87	9.50	0.853**	0.007
	Students' achievement	40	56.375	8.43		

Table 13 shows that Pearson r value (0.500) was found to be non-significant in the subject of English. Thus, null hypothesis No.3 for English male teachers was accepted and it was concluded that there existed non-significant relationship between male teachers' self-efficacy and male students' academic achievement in the subject of English. On the other hand Pearson r value (0.853) was found to be significant at 0.05 level in the subject of English. Thus, null hypothesis No.3 for female English teachers was rejected and it was concluded that there existed a significant relationship between female teachers' self-efficacy and female students' academic achievement in the subject of English.

Ho: 4 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of Math

Table 14: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of Math in district Mianwali

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	96.25	9.54	0.684	0.061
	Students' achievement	40	52.967	8.287		
Urban	Teachers' self- efficacy	8	96.62	9.31	0.521	0.186
	Students' achievement	40	56.562	7.912		

Table 14 shows that Pearson r value (0.684) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.4 for Math rural teachers was accepted and it was concluded that there existed non-significant relationship between rural teachers' self-efficacy and rural students' academic achievement in the subject of Mathematics. Likewise Pearson r value (0.521) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.4 for urban teachers accepted and it was concluded that there was statistically significant relationship between urban teachers' self-efficacy and urban students' academic achievement in the subject of Mathematics.

Ho: 5 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of English

Table 15: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of English in district Mianwali

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	96.87	9.43	0.470	0.240
	Students' achievement	40	56.467	8.247		
Urban	Teachers' self- efficacy	8	96.75	9.33	0.904**	0.002
	Students' achievement	40	56.485	7.95		

Table 15 shows that Pearson r value (0.470) was found to be non-significant in the subject of English. Thus, null hypothesis No.5 for English rural teachers was

accepted and it was concluded that there existed non-significant relationship between rural teachers' self-efficacy and rural students' academic achievement in the subject of English. On the other hand Pearson r value (0.904) was found to be significant at 0.05 level in the subject of English. Thus, null hypothesis No.5 for urban English teachers was rejected and it was concluded that there existed a significant relationship between urban teachers' self-efficacy and urban students' academic achievement in the subject of English.

Ho: 1 There is no significant relationship between teachers' self-efficacy and students'academic achievement in the subject of Math and English

Table 16: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement in district Leyyah

Subject	Group	N	Mean	SD	Pearson "r"	p-value
Math	Teachers' self- efficacy	16	96.75	10.14	0.632**	0.009
	Students' achievement	80	54.25	7.97		
English	Teachers' self- efficacy	16	98.00	8.74	0.875**	0.000
	Students' achievement	80	54.405	8.695		

Table 16 shows that Pearson r value (0.632) was found to be significant in the subject of Math at 0.05 level. Thus, null hypothesis No.1 for Math teacher was rejected and it was concluded that there existed a significant positive relationship between Math teachers' self-efficacy and students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.875) was found to be significant at 0.05 level in the subject of English. Thus null hypothesis No.1 for English teachers was rejected and it was concluded that there existed a significant positive relationship between English teachers' self-efficacy and students' academic achievement in the subject of English.

Ho: 2 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of Math

Table 17: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of Math in district Leyyah

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	94.50	10.47	0.725	0.042
	Students' achievement	40	52.405	7.725		
Female	Teachers' self- efficacy	8	99.00	9.97	0.502	0.205
	Students' achievement	40	56.092	8.29		

Table 17 shows that Pearson r value (0.725) was found to be significant for Math male teachers in the subject of Mathematics. Thus, null hypothesis No.2 for male Math teacher was rejected and it was concluded that there existed a significant positive relationship between male Math teachers' self-efficacy and male students' academic achievement in the subject of Mathematics. On the other hand Pearson r value (0.502) was found to be non-significant for Math female teachers in the subject of Mathematics. Thus, null hypothesis No.2 for Math female teachers was accepted and it was concluded that there existed non-significant relationship between female Math teachers' self-efficacy and female students academic achievement in the subject of Mathematics.

Ho: 3 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of English

Table 18: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of English in district Leyyah

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	98.75	9.11	0.848	0.008
	Students' achievement	40	55.907	8.685		
Female	Teachers' self- efficacy	8	97.25	8.90	0.906	0.002
	Students' achievement	40	52.905	9.027		

Table 18 shows that Pearson r value (0.848) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.3 for male English teachers was rejected and it was concluded that there existed a significant positive relationship

between male English teachers' self-efficacy and male students' academic achievement in the subject of English. Likewise Pearson r value (0.906) was found to be significant for female English teachers in the subject of English at 0.05 level. Thus, null hypothesis No.3 for female English teachers was rejected and it was concluded that there existed a significant positive relationship between female English teachers' self-efficacy and female students' academic achievement in the subject of English.

Ho: 4 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of Math

Table 19: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of Math in district Leyyah

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	96.75	10.88	0.742*	0.035
	Students' achievement	40	52.5	9.21		
Urban	Teachers' self- efficacy	8	96.75	10.11	0.544	0.163
	Students' achievement	40	56.00	7.857		

Table 19 shows that Pearson r value (0.742) was found to be significant in the subject of Math at 0.05 level. Thus, null hypothesis No.4 for rural Math teachers was rejected and it was concluded that there existed a significant relationship between rural Math teachers' self-efficacy and rural students' academic achievement in the subject of Mathematics. On the other hand Pearson r value (0.544) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.4 for Math urban teachers was accepted and it was concluded that there existed non-significant relationship between urban teachers' self-efficacy and urban students' academic achievement in the subject of Mathematics.

Ho: 5 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of English

Table 20: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of English in district Leyyah

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	97.62	9.14	0.866	0.005
	Students' achievement	40	52.905	9.605		
Urban	Teachers' self- efficacy	8	98.37	8.92	0.909	0.002
	Students' achievement	40	55.905	8.0375		

Table 20 shows that Pearson r value (0.866) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.5 for rural English teachers was rejected and it was concluded that there was a significant relationship between rural teachers' self-efficacy and rural students' academic achievement in the subject of English. Likewise, Pearson r value (0.909) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis was rejected and it was concluded that there was a significant relationship between urban English teachers' self-efficacy and urban students' academic achievement in the subject of English.

Ho: 1 There is no significant relationship between teachers' self-efficacy and students' academic achievement in the subject of Math and English

Table 21: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement in district Muzaffar Garh

Subject	Group	N	Mean	SD	Pearson "r"	p-value
Math	Teachers' self- efficacy	16	88.68	10.32	0.677**	0.004
	Students' achievement	80	54.78	7.83		
English	Teachers' self- efficacy	16	90.25	10.09	0.843**	0.000
	Students' achievement	80	55.607	7.312		

Table 21 shows that Pearson r value (0.677) was found to be significant in the subject of Mathematics at 0.05 level. Thus, null hypothesis No.1 for Math teachers was rejected and it was concluded that there was a significant relationship between Math teachers' self-efficacy and students' academic achievement in the subject of Mathematics. Likewise,

Pearson r value (0.843) was found to be significant at 0.05 level in the subject of English. Thus, null hypothesis No.1 for English teachers was rejected and it was concluded that there existed a significant positive relationship between English teachers' self-efficacy and students' academic achievement in the subject of English.

Ho: 2 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of Math.

Table 22: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of Math in district Muzaffar Garh

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	87.25	10.68	0.827	0.011
	Students' achievement	40	53.125	7.955		
Female	Teachers' self- efficacy	8	90.12	10.46	0.505	0.202
	Students' achievement	40	56.437	7.86		

Table 22 shows that Pearson r value (0.827) was found to be significant at 0.05 level in the subject of Mathematics. Thus, null hypothesis No.2 for male Math teachers was rejected and it was concluded that there existed a positive significant relationship between male Math teachers' self-efficacy and male students' academic achievement in the subject of Mathematics. On the other hand Pearson r value (0.505) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.2 for female Math teachers was accepted and it was concluded that there was no significant relationship between female Math teachers' self-efficacy and female students' academic achievement in the subject of Mathematics.

Ho: 3 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of English

Table 23: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of English in district Muzaffar Garh

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	91.25	10.23	0.835	0.010
	Students' achievement	40	57.53	6.54		
Female	Teachers' self- efficacy	8	89.25	10.55	0.871	0.005
	Students' achievement	40	53.687	7.96		

Table 23 shows that Pearson r value (0.835) was found to be significant at 0.05 in the subject of English. Thus, null hypothesis No.3for male English teachers was rejected and it was concluded that there was a significant positive relationship between male English teachers' self-efficacy and male students' academic achievement in the subject of English. Likewise, Pearson r value (0.871) was found to be significant at 0.05 level in the subject of English. Thus, null hypothesis No.3 for female English was rejected and it was concluded that there existed a significant positive relationship between female English teachers' self-efficacy and female students' academic achievement in the subject of English.

Ho: 4 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of Math

Table 24: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of Math in district Muzaffar Garh

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	88.62	10.01	0.770	0.025
	Students' achievement	40	53.00	7.94		
Urban	Teachers' self- efficacy	8	88.75	11.32	0.638	0.093
	Students' achievement	40	56.5	7.815		

Table 24 shows that Pearson r value (0.770) was found to be significant in the subject of Math at 0.05 level. Thus, null hypothesis No.4 for rural Math teachers was rejected and it was concluded that there was a significant positive relationship between rural Math teachers' self-efficacy and rural students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.638) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.4 for urban Math teachers was accepted and it was concluded that there existed non-significant relationship between urban Math teachers' self-efficacy and urban students' academic achievement in the subject of Mathematics.

Ho: 5 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of English

Table 25: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of English in district Muzaffar Garh

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	89.75	10.37	0.873	0.005
	Students' achievement	40	54.50	7.287		
Urban	Teachers' self- efficacy	8	90.75	10.49	0.823	0.012
	Students' achievement	40	56.50	7.655		

Table 25 shows that Pearson r value (0.873) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.5 for rural English teachers was rejected and it was concluded that there existed a positive significant relationship between rural teachers' self-efficacy and rural students' academic achievement in the subject of English. Pearson r value (0.823) was found to be significant in the subject of English. Thus, null hypothesis No.5 for urban English teachers was rejected and it was concluded that there existed a positive significant relationship between urban

English teachers' self-efficacy and urban students' academic achievement in the subject of English.

Ho: 1 There is no significant relationship between teachers' self-efficacy and students' academic achievement in the subject of Math and English

Table 26: Relationship Between teachers' Self-Efficacy and Students' Academic Achievement in Lahore city

Subject	Group	N	Mean	SD	Pearson "r"	p-value
Math	Teachers' self- efficacy	16	93.50	11.75	0.838	0.001
	Students' achievement	80	45.665	10.505		
English	Teachers' self- efficacy	16	90.75	11.89	0.914	0.000
	Students' achievement	80	45.665	10.505		

Table 26 shows that Pearson r value (0.838) was found to be significant in the subject of Math. Thus, null hypothesis No.1 for Math teachers was rejected and it was concluded that there existed a significant positive relationship between Math teachers' self-efficacy and students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.914) was found to be significant in the subject of English. Thus, null hypothesis No.1 for English teachers was rejected and it was concluded that there existed a significant positive relationship between English teachers' self-efficacy and students' academic achievement in the subject of English.

Ho: 2 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of Math

Table 27: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of Math in Lahore City

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	92.66	13.39	0.974	0.001
	Students' achievement	40	46.75	9.587		
Female	Teachers' self- efficacy	8	88.83	11.08	0.942	0.005
	Students' achievement	40	44.582	9.87		

Table 27 shows that Pearson r value (0.974) was found to be significant at 0.05 level in the subject of Mathematics. Thus, null hypothesis No.2 for male Math teachers was rejected and it was concluded that there existed a significant positive relationship between male Math teachers' self-efficacy and male students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.942) was found to be significant in the subject of Mathematics. Thus, null hypothesis No.2 for female Math teachers was rejected and it was concluded that there was a significant positive relationship between female Math teachers' self-efficacy and female students' academic achievement in the subject of Mathematics.

Ho: 3 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of English

Table 28: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of English in Lahore City

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	95.16	11.66	0.830	0.041
	Students' achievement	40	46.165	9.912		
Female	Teachers' self- efficacy	8	91.83	12.70	0.852	0.031
	Students' achievement	40	45.00	10.612		

Table 28 shows that Pearson r value (0.830) was found to be significant in the subject of English. Thus, null hypothesis No.3 for male English teachers was rejected and it was concluded that there existed a significant positive relationship between male English teachers' self-efficacy and male students' academic achievement in the subject of English. Likewise, Pearson r value (0.852) was found to be significant in the subject of English. Thus, null hypothesis No.3 for female English teachers was rejected and it was concluded that there existed a significant positive relationship between female English teachers' self-efficacy and female students' academic achievement in the subject of English.

Ho: 1 There is no significant relationship between teachers' self-efficacy and students' academic achievement in the subject of Math and English

Table 29: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement in district Mirpur Khas

Subject	Group	N	Mean	SD	Pearson "r"	p-value
Math	Teachers' self- efficacy	16	94.31	10.82	0.574*	0.020
	Students' achievement	80	57.842	8.523		
English	Teachers' self- efficacy	16	93.56	9.97	0.894**	0.000
	Students' achievement	80	60.107	9.543		

Table 29 shows that Pearson r value (0.574) was found to be significant in the subject of Math at 0.05 level. Thus, null hypothesis No.1 for Math teachers was rejected and it was concluded that there was a significant positive relationship between Math teachers' self-efficacy and students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.894) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.1 for English teachers was rejected and it was concluded that there was a significant positive relationship between English teachers' self-efficacy and students' academic achievement in the subject of English.

Ho: 2 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of Math

Table 30: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of Math in district Mirpur Khas

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	98.00	11.63	0.630	0.094
	Students' achievement	40	59.342	14.715		
Female	Teachers' self- efficacy	8	90.62	9.17	0.746	0.034
	Students' achievement	40	56.342	13.235		

Table 30 shows that Pearson r value (0.630) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.2 for male Math teachers was accepted and it was concluded that there existed non-significant relationship between male Math teachers' self-efficacy and male students' academic achievement in the subject of Mathematics. On the other hand Pearson r value (0.746) was found to be significant in the subject of Mathematics at 0.05 level. Thus, null hypothesis No.2 for female Math teachers was rejected and it was concluded that there was a significant positive relationship between female Math teachers' self-efficacy and female students' academic achievement in the subject of Mathematics.

Ho: 3 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of English

Table 31: Relationship Between teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of English in district Mirpur Khas

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	91.37	8.63	0.959	0.000
	Students' achievement	40	58.937	16.452		
Female	Teachers' self- efficacy	8	95.75	11.28	0.855	0.007
	Students' achievement	40	61.28	15.007		

Table 31 shows that Pearson r value (0.959) was found to be significant at 0.05 level in the subject of English. Thus, null hypothesis No.3 for English teachers was rejected and it was concluded that there existed a significant relationship between male English teachers' self-efficacy and male students' academic achievement in the subject of English. Likewise, Pearson r value (0.855) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.3 for female English teachers was rejected and it was concluded that there was a significant positive

relationship between female English teachers' self-efficacy and female students' academic achievement in the subject of English.

Ho: 4 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of Math

Table 32: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of Math in district Mirpur Khas

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	95.00	11.00	0.676	0.066
	Students' achievement	40	55.842	14.85		
Urban	Teachers' self- efficacy	8	93.62	11.33	0.691	0.058
	Students' achievement	40	59.842	15.255		

Table 32 shows that Pearson r value (0.676) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.4 for rural Math teachers was accepted and it was concluded that there existed non-significant relationship between rural Math teachers' self-efficacy and rural students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.691) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.4 for urban Math teachers was accepted and it was concluded that there existed non-significant relationship between urban Math teachers' self-efficacy and urban students' academic achievement in the subject of Mathematics.

Ho: 5 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of English

Table 33: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of English in district Mirpur Khas

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	93.62	11.31	0.910**	0.002
	Students' achievement	40	57.62	16.802		
Urban	Teachers' self- efficacy	8	93.50	9.19	0.872**	0.005
	Students' achievement	40	62.59	14.237		

Table 33 shows that Pearson r value (0.910) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.5 for rural English teachers was rejected and it was concluded that there was a significant positive relationship between rural English teachers' self-efficacy and rural students' academic achievement in the subject of English. Likewise, Pearson r value (0.872) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.5 for urban English teachers was rejected and it was concluded that there existed a significant positive relationship between urban English teachers' self-efficacy and urban students' academic achievement in the subject of English.

Ho: 1 There is no significant relationship between teachers' self-efficacy and students' academic achievement in the subject of Math and English.

Table 34: Relationship Between Teachers' Self-Eefficacy and Students' Academic Achievement in district Hyderabad

Subject	Group	N	Mean	SD	Pearson "r"	p-value
Math	Teachers' self- efficacy	16	90.37	12.21	0.829**	0.000
	Students' achievement	80	58.29	19.41		
English	Teachers' self- efficacy	16	93.06	10.63	0.875**	0.000
	Students' achievement	80	58.57	16.272		

Table 34 shows that Pearson r value (0.829) was found to be significant in the subject of Math at 0.05 level. Thus, null hypothesis No.1 for Math teachers was rejected and it was concluded that there was a significant positive relationship between Math teachers' self-efficacy and students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.875) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.1 for English teachers was rejected and it was concluded that there existed a significant positive relationship between English teachers' self-efficacy and students' academic achievement in English.

Ho: 2 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of Math

Table 35: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of Math in district Hyderabad

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	92.12	13.24	0.844**	0.008
	Students' achievement	40	59.28	20.107		
Female	Teachers' self- efficacy	8	88.62	11.69	0.891**	0.003
	Students' achievement	40	57.312	20.022		

Table 35 shows that Pearson r value (0.844 was found to be significant in the subject of Mathematics at 0.05 level. Thus, null hypothesis No.2 for male Math teachers was rejected and it was concluded that there was a significant positive relationship between male Math teachers' self-efficacy and male students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.891) found to be significant in the subject of Mathematics at 0.05 level. Thus, null hypothesis No.2 for Math female teachers was rejected and it was concluded that there existed a significant positive relationship between Math female teachers' self-efficacy and female students' academic achievement in the subject of Mathematics.

Ho: 3 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of English

Table 36: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of English in district Hyderabad

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	90.00	9.88	0.932**	0.001
	Students' achievement	40	57.68	16.942		
Female	Teachers' self- efficacy	8	96.12	11.08	0.849**	0.008
	Students' achievement	40	59.46	16.687		

Table 36 shows that Pearson r value (0.932) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.3 for male English teachers was rejected and it was concluded that there was a significant positive relationship between male English teachers' self-efficacy and male students' academic achievement in the subject of English. Likewise, Pearson r value (0.849) found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.3 for female English teachers was rejected and it was concluded that there was a significant positive relationship between female English teachers' self-efficacy and female students' academic achievement in the subject of English.

Ho: 4 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of Math

Table 37: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of Math in district Hyderabad

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	90.00	12.64	0.873**	0.005
	Students' achievement	40	55.75	20.17		
Urban	Teachers' self- efficacy	8	90.75	12.61	0.859**	0.006
	Students' achievement	40	60.84	19.637		

Table 37 shows that Pearson r value (0.873) was found to be significant in the subject of Mathematics at 0.05 level. Thus, null hypothesis No.4 for rural Math teachers was rejected and it was concluded that there was a significant positive relationship between rural Math teachers' self-efficacy and rural students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.859) was found to be significant in the subject of Mathematics at 0.05 level. Thus, null hypothesis No.4 for Math urban teachers was rejected and it was concluded that there existed a significant positive relationship between urban Math teachers' self-efficacy and urban students' academic achievement in the subject of Mathematics.

Ho: 5 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of English

Table 38: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of English in district Hyderabad

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	93.25	11.13	0.897**	0.002
	Students' achievement	40	57.15	16.67		
Urban	Teachers' self- efficacy	8	92.87	10.86	0.837*	0.010
	Students' achievement	40	60.00	16.875		

Table 38 shows that Pearson r value (0.897) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.5 for rural English teachers was rejected and it was concluded that there existed a significant positive relationship between rural English teachers' self-efficacy and rural students' academic achievement in the subject of English. Likewise, Pearson r value (0.837) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.5 for urban English teachers was rejected and it was concluded that there existed a

significant positive relationship between urban English teachers' self-efficacy and urban students' academic achievement in the subject of English.

Ho: 1 There is no significant relationship between teachers' self-efficacy and students' academic achievement in the subject of Math and English.

Table 39: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement in district Jacobabad

Subject	Group	N	Mean	SD	Pearson "r"	p-value
Math	Teachers' self- efficacy	16	93.75	10.34	0.583	0.019
	Students' achievement	80	53.41	4.062		
English	Teachers' self- efficacy	16	93.54	9.95	0.893	0.000
	Students' achievement	80	95.93	15.212		

Table 39 shows that Pearson r value (0.583) was found to be significant in the subject of Math at 0.05 level. Thus, null hypothesis No.1 for Math teachers was rejected and it was concluded that there existed a significant positive relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.893) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.1 for English teachers was rejected and it was concluded that there was a significant positive relationship between teachers' self-efficacy and students' academic achievement in the subject of English.

Ho: 2. There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of Math

Table 40: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of Math in district Jacobabad

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	96.75	13.39	0.419	0.124
	Students' achievement	40	55.81	3.162		
Female	Teachers' self- efficacy	8	89.35	9.25	0.495	0.214
	Students' achievement	40	51.61	4.042		

Table 40 shows that Pearson r value (0419) was found to be non-significant in the subject of Math. Thus, null hypothesis No.2 for male Math teachers was accepted and it was concluded that there was non-significant relationship between male Math teachers' self-efficacy and male students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.495) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.2 for female Math was accepted and it was concluded that there was non-significant significant relationship between female Math teachers' self-efficacy and female students' academic achievement in the subject of Mathematics.

Ho: 3 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of English

Table 41: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of English in district Jacobabad

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	91.83	12.70	0.851	0.030
	Students' achievement	40	45.00	15.452		
Female	Teachers' self- efficacy	8	95.16	11.66	0.829	0.042
	Students' achievement	40	46.165	15.472		

Table 41 shows that Pearson r value (0.851) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.3 for male English teachers was rejected and it was concluded that there was a significant relationship between male English teachers' self-efficacy and male students' academic achievement. Likewise, Pearson r value (0.829) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.3 for female English teachers was rejected and it was concluded that there existed a significant relationship between female English

teachers' self-efficacy and female students' academic achievement in the subject of English.

Ho: 4 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of Math

Table 42: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of Math in district Jacobabad

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	91.85	9.78	0.814	0.014
	Students' achievement	40	51.03	3.587		
Urban	Teachers' self- efficacy	8	92.75	10.53	0.612	0.125
	Students' achievement	40	55.97	2.612		

Table 42 shows that Pearson r value (0.814) was found to be significant in the subject of Math at 0.05 level. Thus, null hypothesis No.4 for rural Math teachers was rejected and it was concluded that there existed a significant positive relationship between rural Math teachers' self-efficacy and rural students' academic achievement in the subject of Mathematics. On the other hand, Pearson r value (0.612) was found to be non-significant in the subject of Math. Thus, null hypothesis No.4 for urban Math teachers was accepted and it was concluded that there existed non-significant relationship between urban Math teachers' self-efficacy and urban students' academic achievement in the subject of Mathematics.

Ho: 5 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of English

Table 43: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement in Location wise the subject of English in district Jacobabad

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	91.33	12.30	0.927	0.008
	Students' achievement	40	40.75	10.167		
Urban	Teachers' self- efficacy	8	95.66	11.89	0.838	0.037
	Students' achievement	40	50.41	17.825		

Table 43 shows that Pearson r value (0.927) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.5 for rural English teachers was rejected and it was concluded that there existed a significant relationship between rural English teachers' self-efficacy and rural students' academic achievement. Likewise, Pearson r value (0.838) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.5 for urban English teachers was rejected and it was concluded that there was a significant relationship between urban English teachers' self-efficacy and urban students' academic achievement in the subject of English.

Ho: 1. There is no significant relationship between teachers' self-efficacy and students' academic achievement in the subject of Math and English

Table 44: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement in Karachi

Subject	Group	N	Mean	SD	Pearson "r"	p-value
Math	Teachers' self- efficacy	16	92.43	10.03	0.582	0.018
	Students' achievement	80	53.39	4.06		
English	Teachers' self- efficacy	16	94.07	9.14	0.807	0.010
	Students' achievement	80	54.79	9.455		

Table 44 shows that Pearson r value (0.582) was found to be significant at 0.05 level in the subject of Mathematics. Thus, null hypothesis No.1 for Math teachers was rejected and it was concluded that there existed a significant positive correlation between Math teachers' self-efficacy and students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.807) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.1 for English teachers was rejected and it was concluded that there existed a significant relationship between English teachers' self-efficacy and students' academic achievement in the subject of English.

Ho: 2. There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of Math

Table 45: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of Math in Karachi

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	97.26	9.23	0.418	0.303
	Students' achievement	40	55.37	3.16		
Female	Teachers' self- efficacy	8	88.37	9.25	0.493	0.214
	Students' achievement	40	51.40	4.037		

Table 45 shows that Pearson r value (0.418) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.2 for male math teachers was accepted and it was concluded that there was non-significant relationship between male Math teachers' self-efficacy and male students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.494) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.2 for female Math teachers was accepted and it was concluded that there was non-significant relationship between female Math teachers' self-efficacy and female students' academic achievement in the subject of Mathematics.

Ho: 3 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of English

Table 46: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of English in Karachi

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	91.88	18.06	0.645	0.085
	Students' achievement	40	52.902	16.29		
Female	Teachers' self- efficacy	8	96.25	15.92	0.934	0.001
	Students' achievement	40	56.68	16.55		

Table 46 shows that Pearson r value (0.645) was found to be non-significant in the subject of English. Thus, null hypothesis No.3 for male English teachers was accepted and it was concluded that there existed non-significant relationship between male English teachers' self-efficacy and male students' academic achievement in the subject of English. On the other hand, Pearson r value (0.934) was found to be significant at 0.05 level in the subject of English. Thus, null hypothesis No.3 for female English teachers was rejected and it was concluded that there existed a positive correlation between female English teachers' self-efficacy and female students' academic achievement in the subject of English.

Ho: 1 There is no significant relationship between teachers' self-efficacy and students' academic achievement in the subject of Math and English

Table 47: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement in district Peshawar

Subject	Group	N	Mean	SD	Pearson "r"	p-value
Math	Teachers' self- efficacy	16	94.43	11.51	0.754**	0.001
	Students' achievement	80	52.59	13.42		
English	Teachers' self- efficacy	16	96.12	10.56	0.859**	0.000
	Students' achievement	80	51.84	9.967		

Table 47 shows that Pearson r value (0.754) was found to be significant in the subject of Mathematics at 0.05 level. Thus, null hypothesis No.1 for Math teachers

was rejected and it was concluded that there existed a significant relationship between Math teachers' self-efficacy and students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.859) was found to be significant at 0.05 level in the subject of English. Thus, null hypothesis No.1 for English teachers was rejected and it was concluded that there existed a significant positive correlation between English teachers' self-efficacy and students' academic achievement in the subject of English.

Ho: 2 There is no significant relationship between teachers' self-efficacy and students'academic achievement (gender wise) in the subject of Math

Table 48: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of Math in district Peshawar

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	97.12	11.78	0.955**	0.000
	Students' achievement	40	53.43	14.245		
Female	Teachers' self- efficacy	8	91.75	11.32	0.898**	0.002
	Students' achievement	40	51.96	13.485		

Table 48 shows that Pearson r value (0.955) was found to be significant in the subject of Mathematics at 0.05 level. Thus, null hypothesis No.2 for male Math teachers was rejected and it was concluded that there was a significant relationship between male Math teachers' self-efficacy and male students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.898) was found to be significant at 0.05 level in the subject of Mathematics. Thus, null hypothesis was rejected and it was concluded that there existed a positive significant relationship between female Math teachers' self-efficacy and female students' academic achievement in the subject of Mathematics.

Ho: 3 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of English

Table 49: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of English in district Peshawar

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	93.00	9.21	0.773*	0.025
	Students' achievement	40	51.18	9.977		
Female	Teachers' self- efficacy	8	99.25	11.49	0.859**	0.006
	Students' achievement	40	52.5	10.605		

Table 49 shows that Pearson r value (0.773) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.3 for male English was rejected and it was concluded that there was a significant relationship between male English teachers' self-efficacy and male students' academic achievement in the subject of English. Likewise, Pearson r value (0.859) was found to be significant at 0.05 level in the subject of English. Thus, null hypothesis was rejected and it was concluded that there existed a significant positive correlation between female English teachers' self-efficacy and female students' academic achievement in the subject of English.

Ho: 4 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of Math

Table 50: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of Math in district Peshawar

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	91.75	12.10	0.923**	0.001
	Students' achievement	40	48.71	13.312		
Urban	Teachers' self- efficacy	8	97.12	10.98	0.892**	0.003
	Students' achievement	40	56.68	13.13		

Table 50 shows that Pearson r value (0.923) was found to be significant in the subject of Mathematics at 0.05 level. Thus, null hypothesis No.4 for rural Math teachers rejected and it was concluded that there existed a significant relationship

between rural Math teachers' self-efficacy and rural students' academic achievement in the subject Mathematics. Likewise, Pearson r value (0.892) was found to be significant in the subject of Mathematics. Thus, null hypothesis No.4 for urban Math teachers was rejected and it was concluded that there existed a significant relationship between urban Math teachers' self-efficacy and urban students' academic achievement in the subject of Mathematics.

Ho: 5 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of English

Table 51: Relationship Between teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of English in district Peshawar

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	92.50	11.19	0.858**	0.006
	Students' achievement	40	51.84	7.477		
Urban	Teachers' self- efficacy	8	99.75	9.16	0.945**	0.000
	Students' achievement	40	51.84	12.53		

Table 51 shows that Pearson r value (0.858) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.5 for rural English teachers was rejected and it was concluded that there was a significant relationship between rural English teachers' self-efficacy and rural students' academic achievement in the subject of English. Likewise, Pearson r value (0.945) was found to be significant at 0.05 level in the subject of English. Thus, null hypothesis No.5 for urban English teachers was rejected and it was concluded that there existed a significant relationship between urban English teachers' self-efficacy and urban students' academic achievement in the subject of English.

Ho: 1 There is no significant relationship between teachers' self-efficacy and students' academic achievement in the subject of Math and English.

Table 52: Relationship Between teachers' Self-Efficacy and Students' Academic Achievement in district Lakki

Subject	Group	N	Mean	SD	Pearson "r"	p-value
Math	Teachers' self- efficacy	16	90.93	11.55	0.562*	0.023
	Students' achievement	80	48.68	10.99		
English	Teachers' self- efficacy	16	91.18	10.80	0.358	0.173
	Students' achievement	80	56.26	10.647		

Table 52 shows that Pearson r value (0.562) was found to be significant in the subject of Math at 0.05 level. Thus, null hypothesis No.1 for Math teachers was rejected and it was concluded that there was a significant relationship between Math teachers' self-efficacy and students' academic achievement in the subject of Mathematics. On the other hand, Pearson r value (0.358) was found to be non-significant at 0.05 level in the subject of English. Thus, null hypothesis No.1 for English teachers was accepted and it was concluded that there existed non-significant correlation between English teachers' self-efficacy and students' academic achievement in the subject of English.

Ho: 2 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of Math

Table 53: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of Math in district Lakki

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	93.25	12.78	0.616	0.104
	Students' achievement	40	49.65	11.287		
Female	Teachers' self- efficacy	8	88.62	10.51	0.574	0.137
	Students' achievement	40	47.7	11.367		

Table 53 shows that Pearson r value (0.616) was found to be non-significant at 0.05 level in the subject of Mathematics. Thus, null hypothesis No.2 for male Math teachers was accepted and it was concluded that there was a non-significant

relationship between male Math teachers' self-efficacy and male students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.574) was found to be non-significant in the subject of Mathematics at 0.05 level. Thus, null hypothesis No.2 for female Math teachers was accepted and it was concluded that there a non-significant relationship between female Math teachers' self-efficacy and female students' academic achievement in the subject of Mathematics.

Ho: 3 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of English.

Table 54: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of English in district Lakki

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	88.75	11.42	0.378	0.356
	Students' achievement	40	55.65	10.61		
Female	Teachers' self- efficacy	8	93.62	10.29	0.256	0.541
	Students' achievement	40	56.87	11.38		

Table 54 shows that Pearson r value (0.378) was found to be non-significant in the subject of English. Thus, null hypothesis No.3 for male English teachers was accepted and it was concluded that there was a non-significant relationship between male teachers' self-efficacy and male students' academic achievement. Likewise, Pearson r value (0.256) found to be non-significant in the subject of English. Thus, null hypothesis No.3 for female English teacher was accepted and it was concluded that there was non-significant relationship female English teachers' self-efficacy and students' academic achievement in the subject of English.

Ho: 4 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of Math

Table 55: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of Math in district Lakki

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	89.75	12.23	0.362	0.379
	Students' achievement	40	50.43	9.982		
Urban	Teachers' self- efficacy	8	92.12	11.54	0.866**	0.005
	Students' achievement	40	46.93	12.332		

Table 55 shows that Pearson r value (0.362) was found to be non-significant in the subject of Math. Thus, null hypothesis No.4 for rural Math teachers was accepted and it was concluded that there was a non-significant relationship between rural Math teachers' self-efficacy and rural students' academic achievement in the subject of Mathematics. On the other hand, Pearson r value (0.866) was found to be significant in the subject of Math at 0.05 level. Thus, null hypothesis No.4 for urban Math teachers was rejected and it was concluded that there existed a significant positive relationship between urban Math teachers' self-efficacy and urban students' academic achievement in the subject of Mathematics.

Ho: 5 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of English

Table 56: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of English in district Lakki

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	90.37	11.52	0.300	0.470
	Students' achievement	40	53.71	9.952		
Urban	Teachers' self- efficacy	8	92.00	10.75	0.327	0.429
	Students' achievement	40	58.81	11.36		

Table 56 shows that Pearson r value (0.300) was found to be non-significant in the subject of English. Thus, null hypothesis No.5 for rural English teachers was accepted

and it was concluded that there was non-significant relationship between rural English teachers' self-efficacy and rural students' academic achievement in the subject of English. Likewise, Pearson r value (0.327) was found to be non-significant in the subject of English. Thus, null hypothesis No.5 for urban English teachers was accepted and it was concluded that there was a non-significant relationship between urban English teachers' self-efficacy and urban students' academic achievement in the subject of English.

Ho:1 There is no significant relationship between teachers' self-efficacy and students' academic achievement in the subject of Math and English

Table 57: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement in district Karak

Subject	Group	N	Mean	SD	Pearson "r"	p-value
Math	Teachers' self- efficacy	16	90.25	12.93	0.911**	0.000
	Students' achievement	80	51.39	12.715		
English	Teachers' self- efficacy	16	90.81	11.94	0.925**	0.000
	Students' achievement	80	50.89	12.047		

Table 57 shows that Pearson r value (0.911) was found to be significant in the subject of Math at 0.05 level. Thus, null hypothesis No.1 for Math teachers was rejected and it was concluded that there was a significant relationship between Math teachers' self-efficacy and students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.925) was found to be significant at 0.05 level in the subject of English. Thus, null hypothesis No.1 for English teachers was rejected and it was concluded that there was a significant relationship between English teachers' self-efficacy and students' academic achievement in the subject of English.

Ho: 2 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of Math

Table 58: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of Math in district Karak

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	92.75	14.54	0.995**	0.000
	Students' achievement	40	52.28	13.58		
Female	Teachers' self- efficacy	8	87.75	11.51	0.981**	0.000
	Students' achievement	40	50.5	12.657		

Table 58 shows that Pearson r value (0.995) was found to be significant in the subject of Math at 0.05 level. Thus, null hypothesis No.2 for male Math teachers was rejected and it was concluded that there was a significant relationship between male Math teachers' self-efficacy and male students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.981) was found to be significant in the subject of Math. Thus, null hypothesis No.2 for female Math teachers was rejected and it was concluded that there was a significant relationship between female Math teachers' self-efficacy and female students' academic achievement in the subject of Mathematics.

Ho: 3 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of English

Table 59: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of English in district Karak

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	89.50	12.22	0.958**	0.000
	Students' achievement	40	49.96	12.64		
Female	Teachers' self- efficacy	8	92.12	12.33	0.897**	0.003
	Students' achievement	40	51.81	12.22		

Table 59 shows that Pearson r value (0.958) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.3 for male English teachers was rejected and it was concluded that there was a significant relationship between male English teachers' self-efficacy and male students' academic achievement in the subject of English. Likewise, Pearson r value (0.897) was found to be significant in the subject of English. Thus, null hypothesis No.3 for female English teachers was rejected and it was concluded that there was a significant positive correlation between female English teachers' self-efficacy and female students' academic achievement in the subject of English.

Ho: 4 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of Math

Table 60: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of Math in district Karak

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	89.12	12.99	0.977**	0.000
	Students' achievement	40	50.12	12.44		
Urban	Teachers' self- efficacy	8	91.37	13.65	0.979**	0.000
	Students' achievement	40	52.65	13.71		

Table 60 shows that Pearson r value (0.977) was found to be significant in the subject of Mathematics at 0.05 level. Thus, null hypothesis No.4 for rural Math teachers was rejected and it was concluded that there was a significant relationship between rural Math teachers' self-efficacy and rural students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.979) was found to be significant in the subject of Mathematics at 0.05 level. Thus, null hypothesis No.4 for urban Math teachers was rejected and it was concluded that there was a significant positive correlation between urban Math teachers' self-efficacy and urban students' academic achievement in the subject of Mathematics.

Ho: 5 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of English

Table 61: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of English in district Karak

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	90.25	13.09	0.948**	0.000
	Students' achievement	40	51.37	11.995		
Urban	Teachers' self- efficacy	8	91.37	11.55	0.924**	0.001
	Students' achievement	40	50.40	12.907		

Table 61 shows that Pearson r value (0.948) was found to be significant in the subject of English at 0.05 level. Thus, null hypothesis No.5 for rural English teachers was rejected and it was concluded that there was a significant relationship between rural English teachers' self-efficacy and rural students' academic achievement in the subject of English. Likewise, Pearson r value (0.924) was found to be significant at 0.05 level in the subject of English. Thus, null hypothesis No.5 urban English teachers was rejected and it was concluded that there a significant positive correlation between urban English teachers' self-efficacy and urban student' academic achievement in the subject of English.

Ho: 1. There is no significant relationship between teachers' self-efficacy and students' academic achievement in the subject of Math and English

Table 62: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement in district Bannu

Subject	Group	N	Mean	SD	Pearson "r"	p-value
Math	Teachers' self- efficacy	16	92.87	10.15	0.580	0.018
	Students' achievement	80	53.39	4.062		
English	Teachers' self- efficacy	16	94.17	9.19	0.809	0.000
	Students' achievement	80	54.78	9.45		

Table 62 shows that Pearson r value (0.580) was found to be significant at 0.05 level. Thus, null hypothesis No.1 for Math teachers was rejected and it was concluded that

there was a significant relationship between Math teachers' self-efficacy and students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.809) was found to be significant at 0.05 level in the subject of English, thus, null hypothesis No.1 for English teachers was reject and it was concluded that there existed a positive correlation between English teachers' self-efficacy and students' academic achievement in the subject English.

Ho: 2 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of Math.

Table 63: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of Math in district Bannu

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	97.27	9.23	0.419	0.303
	Students' achievement	40	55.39	3.167		
Female	Teachers' self- efficacy	8	88.39	9.25	0.495	0.215
	Students' achievement	40	51.40	4.042		

Table 63 shows that Pearson r value (0.419) was found to be non-significant in the subject of Math. Thus, null hypothesis No.1 for male Math teachers was accepted and it was concluded that there was a non-significant relationship between male Math teachers' self-efficacy and male students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.495) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.2 for female Math teachers was accepted and it was concluded that there was a non-significant relationship between female Math teachers' self-efficacy and female students' academic achievement in the subject of Mathematics.

Ho: 3 There is no significant relationship between teachers' self-efficacy and students'academic achievement (gender wise) in the subject of English

Table 64: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of English in district Bannu

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	91.82	9.16	0.645	0.085
	Students' achievement	40	52.91	8.905		
Female	Teachers' self- efficacy	8	96.24	9.16	0.934**	0.001
	Students' achievement	40	56.69	10.20		

Table 64 shows that Pearson r value (0.645) was found to be non-significant in the subject of English. Thus, null hypothesis No.3 for male English teachers was accepted and it was concluded that there was non-significant relationship between male English teachers' self-efficacy and male students' academic achievement in the subject of English. On the other hand, Pearson r value (0.934) was found to be significant at 0.05 level in the subject of English. Thus, null hypothesis No.3 for female English teachers was rejected and it was concluded that there existed a significant relationship between female English teachers' self-efficacy and female students' academic achievement in the subject of English.

Ho: 4 There is no significant relationship between teachers' self-efficacy and students'academic achievement (location wise) in the subject of Math.

Table 65: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of Math in district Bannu

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	92.00	10.14	0.814	0.014
	Students' achievement	40	50.78	3.587		
Urban	Teachers' self- efficacy	8	93.65	10.54	0.590	0.124
	Students' achievement	40	56.00	2.612		

Table 65 shows that Pearson r value (0.814) was found to be significant in the subject of Math at 0.05 level. Thus, null hypothesis No.4 for rural Math teachers was rejected and it was concluded that there was a significant relationship between rural Math teachers' self-efficacy and rural students' academic achievement in the subject of Mathematics. On the other hand, Pearson r value (0.590) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.4 for urban Math teachers was accepted and it was concluded that there was non-significant relationship between urban Math teachers' self-efficacy and urban students' academic achievement in the subject of Mathematics.

Ho: 5 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of English

Table 66: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of English in district Bannu

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	93.75	9.45	0.746	0.934
	Students' achievement	40	51.88	8.78		
Urban	Teachers' self- efficacy	8	94.36	9.54	0.925	0.001
	Students' achievement	40	57.71	9.775		

Table 66 shows that Pearson r value (0.746) was found to be non-significant in the subject of English at 0.05 level. Thus, null hypothesis No.5 for rural English teachers was accepted and it was concluded that there was a non is significant relationship between rural English teachers' self-efficacy and rural students' academic achievement in the subject of English. On the other hand, Pearson r value (0.925) was found to be significant at 0.05 level in the subject of English. Thus, null hypothesis No.5 for urban English teachers was rejected and it was concluded that there was a significant relationship between urban English teachers' self-efficacy and urban students' academic achievement in the subject of English.

Ho: 1 There is no significant relationship between teachers' self-efficacy and students' academic achievement in the subject of Math and English

Table 67: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement in district Sibi

Subject	Group	N	Mean	SD	Pearson "r"	p-value
Math	Teachers' self- efficacy	16	95.47	9.13	0.593	0.015
	Students' achievement	80	55.01	8.042		
English	Teachers' self- efficacy	16	95.81	9.06	0.680	0.004
	Students' achievement	80	56.18	7.825		

Table 67 shows that Pearson r value (0.583) was found to be significant in the subject of Math. Thus, null hypothesis No.1 for Math teachers was rejected and it was concluded that there was a significant relationship between Math teachers' self-efficacy and students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.680) was found to be significant in the subject of English. Thus, null hypothesis No.1 for English teachers was rejected and it was concluded that there was a significant relationship between English teachers' self-efficacy and students' academic achievement in the subject of English.

Ho: 2. There is no significant relationship between teachers' self-efficacy and students'academic achievement (gender wise) in the subject of Math

Table 68: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of Math in district Sibi

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	97.65	9.42	0.534	0.172
	Students' achievement	40	56.012	8.14		
Female	Teachers' self- efficacy	8	93.56	9.09	0.625	0.095
	Students' achievement	40	53.13	7.855		

Table 68 shows that Pearson r value (0.534) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.2 for male Math teachers was

accepted and it was concluded that there was a non-significant relationship between male Math teachers' self-efficacy and students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.625) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.2 for female Math teachers was accepted and it was concluded that there was a non-significant relationship between female Math teachers' self-efficacy and female students' academic achievement in the subject of Mathematics.

Ho: 3 There is no significant relationship between teachers' self-efficacy and students'academic achievement (gender wise) in the subject of English

Table 69: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of English in district Sibi

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	94.65	9.11	0.500	0.207
	Students' achievement	40	56.56	7.78		
Female	Teachers' self- efficacy	8	96.75	9.50	0.851	0.007
	Students' achievement	40	56.37	8.435		

Table 69 shows that Pearson r value (0.500) was found to be non-significant in the subject of English. Thus, null hypothesis No.3 for male English teachers was accepted and it was concluded that there was a non- significant relationship between male English teachers' self-efficacy and male students' academic achievement in the subject of English. On the other hand, Pearson r value (0.851) was found to be significant in the subject of English. Thus, null hypothesis No.3 for female English teachers was rejected and it was concluded that there was a significant relationship between female English teachers' self-efficacy and female students' academic achievement in the subject of English.

Ho: 4 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of Math

Table 70: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of Math in district Sibi

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	96.27	9.54	0.0683	0.061
	Students' achievement	40	52.96	8.292		
Urban	Teachers' self- efficacy	8	96.50	9.31	0.521	0.185
	Students' achievement	40	56.61	7.91		

Table 70 shows that Pearson r value (0.683) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.4 for rural Math teachers was accepted and it was concluded that there was a non- significant relationship between rural Math teachers' self-efficacy and rural students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.521) was found to be non-significant in the subject of Mathematics. Thus, null hypothesis No.4 for urban Math teachers was accepted and it was concluded that there was a non-significant relationship between urban Math teachers' self-efficacy and urban students' academic achievement in the subject of Mathematics.

Ho: 5 There is no significant relationship between teachers' self-efficacy and students' academic achievement (location wise) in the subject of English

Table 71: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Location wise in the subject of English in district Sibi

Location	Group	N	Mean	SD	Pearson "r"	p-value
Rural	Teachers' self-efficacy	8	95.86	9.42	0.469	0.240
	Students' achievement	40	56.20	8.187		
Urban	Teachers' self- efficacy	8	94.75	9.32	0.895	0.002
	Students' achievement	40	56.39	7.912		

Table 71 shows that Pearson r value (0.469) was found to be non-significant in the subject of English. Thus, null hypothesis No.5 for rural English teachers was accepted

and it was concluded that there was a non-significant relationship between rural English teachers' self-efficacy and rural students' academic achievement in the subject of English. On the other hand, Pearson r value (0.895) was found to be significant in the subject of English. Thus, null hypothesis No.5 for urban English teachers was rejected and it was concluded that there was a significant relationship between urban English teachers' self-efficacy and urban students' academic achievement in the subject of English.

Ho: 1 There is no significant relationship between teachers' self-efficacy and students' academic achievement in the subject of Math and English

Table72: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement in district Quetta

Subject	Group	N	Mean	SD	Pearson "r"	p-value
Math	Teachers' self- efficacy	16	94.42	11.52	0.754	0.001
	Students' achievement	80	52.59	13.42		
English	Teachers' self- efficacy	16	96.13	10.57	0.859	0.000
	Students' achievement	80	51.84	9.965		

Table 72 shows that Pearson r value (0.754) was found to be significant in the subject of Math at 0.05 level. Thus, null hypothesis No.1 for Math teachers was rejected and it was concluded that there was a significant relationship between Math teachers' self-efficacy and students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.859) was found to be significant at 0.05 level in the subject of English. Thus, null hypothesis is rejected and it was concluded that there was a significant relationship between English teachers' self-efficacy and students' academic achievement in the subject of English.

Ho: 2 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of Math

Table 73: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of Math in district Quetta

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	97.13	11.77	0.954	0.000
	Students' achievement	40	53.43	14.242		
Female	Teachers' self- efficacy	8	91.76	11.33	0.897	0.002
	Students' achievement	40	51.96	13.482		

Table 73 shows that Pearson r value (0.954) was found to be significant at 0.05 level in the subject of Mathematics. Thus, null hypothesis No.2 for male Math teachers was rejected and it was concluded that there was a significant relationship between male Math teachers' self-efficacy and male students' academic achievement in the subject of Mathematics. Likewise, Pearson r value (0.897) was found to be significant at 0.05 level in the subject of Mathematics. Thus, null hypothesis No.2 for female Math teachers was rejected and it was concluded that there was a significant relationship between female Math teachers' self-efficacy and female students academic achievement in the subject of Mathematics.

Ho: 3 There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of English

Table 74: Relationship Between Teachers' Self-Efficacy and Students' Academic Achievement Gender wise in the subject of English in district Quetta

Gender	Group	N	Mean	SD	Pearson "r"	p-value
Male	Teachers' self-efficacy	8	93.12	9.23	0.773	0.025
	Students' achievement	40	51.18	9.98		
Female	Teachers' self- efficacy	8	99.24	11.48	0.859	0.006
	Students' achievement	40	52.53	10.602		

Table 74 shows that Pearson r value (0.773) was found to be significant on 0.05 level in the subject of English. Thus, null hypothesis No.3 for male English teachers was

rejected and it was concluded that there was a significant relationship between male English teachers' self-efficacy and male students' academic achievement in the subject of English. Likewise, Pearson r value (0.859) was found to be significant 0.05 level in the subject of English. Thus, null hypothesis No.3 for female English teachers was rejected and it was concluded that there was a significant relationship between female English teachers' self-efficacy and female students' academic achievement in the subject of English.

Province-wise Summary of Relationship Analysis

On the basis of data analysis and the findings of the study province wise description about relationship between teachers' self-efficacy and students' academic achievement and the conclusions drawn depicted the existing picture of correlation.

Punjab

In the province of the Punjab relationship between teachers' self-efficacy and students' academic achievement is summarized as following:

Relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics and English.

(i) Relationship between teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics was found significant overall in the province of the Punjab. However, in Lahore City district the correlation between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics was found higher than correlation between Math teachers'(male + female) self-efficacy and their students' academic achievement in Mathematics reflected in other districts in the province of the Punjab.

(ii) A significant relationship was found between English teachers' (male + female) self-efficacy and their students' academic achievement in subject of English in all the sample districts of the Punjab province. However, the relationship between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English in Lahore City district was found to be higher as compared to relationship in other sample districts in the Punjab.

The relationship between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English was found to be higher than correlation between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics in all the sample districts (Chakwal , Attock, Mianwali, Leyyah, Muzaffar Garh and Lahore City district) of the Punjab.

Sindh

In Sind province relationship between math teachers' (male + female) self-efficacy and their students' academic achievement and relationship between English teachers' (male + female) self-efficacy and their students' academic achievement is summarized as under:-

i. Relationship between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics was observed as significant in all sample districts namely Mirpur Khas, Hyderabad, Jacobabad, and Karachi City district. However, correlation in Math teachers' (male + female) self-efficacy and their students' academic achievement was found to be higher in district Hyderabad as compared to other sample districts in the province of Sindh. Correlation between Math teachers' (male + female)

self-efficacy and their students' academic achievement in the subject of Mathematics was found to be as, correlation in Hyderabad district > correlation in Jacobabad district > correlation in Karachi City district > correlation in Mirpur Khas district.

ii. Relationship between English teachers' (male + female) self-efficacy and students' academic achievement in in the subject English was found to be significant in all the sample districts of the Sindh province. However, correlation was observed to be higher between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English in district Mirpur Khas. Correlation between English teachers' (male + female) self-efficacy and their students' academic achievement was found to be as, correlation in district Mirpur Khas > correlation in district Jacobabad > correlation in district Hyerabad > correlation in Karachi City district. Relationship between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English was found to be higher as compared to correlation between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics in all the sample districts in the province of Sindh.

Khyber Pakhtunkhaw

In the province of K. P. relationship in the subjects of Mathematics and English summarized as:

i. Relationship between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics was fond to be significant in the districts of Peshawar, Lakki, karak and Bannu. However, correlation was observed higher in district Karak as compared

to correlation found in other sample districts of K.P. in the subject of Mathematics.

ii. Relationship between English teachers' (male + female) self-efficacy and students' academic achievement in the subject of English found significant in the districts of Peshawar, Lakki, Karak and Bannu. However, Non-significant relationship was found in district Lakki.

Relationship between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English was found to be higher than correlation found between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics in sample districts of K.P.

Balochistan

In the province of Baluchistan sample included Sibi district and Quetta City district. Relationship between math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of mathematics and relationship between English teachers' self-efficacy and their students' academic achievement summarized as following:

i. Relationship between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics was found to be significant in Sibi district and Quetta City district. However, in Quetta City district correlation between Math teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was noted to be higher than correlation observed between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics in Sibi district.

ii. Relationship between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English was found to significant in Sibi district and Quetta City district. However, correlation was noted as higher in Quetta City district than correlation found in Sibi district in English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English.

Relationship between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English was found to be higher as compared to correlation between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics in the province of Balochistan.

Table: 4.1 Relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics and English

Sr. No.	District	Composite (male+female) Math. group Pearson "r"	Sig/ Non. Sig.	Composite (male+female) English group Pearson "r"	Sig. /Non Sig
1.	Chakwal	0.582	Sig.	0.807	sig.
2.	Attoack	0.713	Sig.	0.906	sig.
3.	Mianwali	0.594	Sig.	0.622	Sig.
4.	Leyyah	0.677	Sig.	0.875	sig.
5.	Muzzafar Ghar	0.677	Sig.	0.843	sig.
6.	Lahore City	0.838	Sig.	0.914	sig.
7.	Mirpur Khas	0.574	Sig.	0.894	sig.
8.	Hyderabad	0.829	Sig.	0.875	sig.
9.	Jacobabad	0.583	Sig.	0.893	sig.
10.	Karachi	0.582	Sig.	0.807	Sig.
11.	Peshawar	0.754	sig.	0.859	sig.
12.	Lakki	0.562	sig.	0.358	no sig.
13.	Karak	0.911	sig.	0.925	sig.
14.	Bannu	0.580	sig.	0.812	sig.
15.	Sibi	0.593	sig.	0.680	sig.
16.	Quetta	0.754	sig.	0.859	sig.

2. Gender wise relationship between teachers' self-efficacy and students' academic achievement.

Punjab

Gender wise relationship in the province of the Punjab is summarized as:

i. Relationship between male Math teachers' self-efficacy and their male students' academic achievement in the subject of Mathematics was found to be significant in the districts of Attock, Leyyah, Muzaffar Garh and Lahore City district. However, correlation in Lahore City district was observed to be higher than relationship between Math male teachers' self-efficacy and their students' academic achievement in the subject of Mathematics in other sample districts of the Punjab. Non-significant correlation was observed between Math male teachers' self- efficacy and their students' academic achievement in the subject of Mathematics in distrct Chakwal and Mianwali.

ii. Relationship between Math female teachers' self-efficacy and their female students' academic achievement in the subject of Mathematics was noted highly significant in Lahore City district. Non-significant relationship was observed in other sample districts, viz. Chakwal, Attock , Mianwali, Leyyah and Muzaffar Garh in the province of the Punjab. Relationship between Math male teachers' self-efficacy and their students' academic achievement was found to be higher than correlation observed between female Math teachers' self-efficacy and their female students' in the subject of Mathematics.

iii. Relationship between male English teachers' self-efficacy and their male students' academic achievement in the subject of English was found to be significant in all the sample districts of the Punjab except Chakwal and Mianwali. However, relationship between English male teachers self-efficacy

and their male students academic achievement in the subject of English was observed higher in Attock district.

iv. Relationship between female English teachers' self-efficacy and their female students' academic achievement in the subject of English was found to be significant in all the sample districts of the Punjab. However, relationship was observed higher between English female teachers' self-efficacy and their female students' in the subject of English in district Chakwal.

v. Relationship between English female teachers' self-efficacy and their students' academic achievement was found to be than relationship observed between English male teachers' self-efficacy and their students' academic achievement in the subject of English in district Chakwal.

Sindh

Gender wise relationship in the province of Sindh is summarized as:

i. Relationship between Mathematics male teachers' self-efficacy and their male students academic achievement was found to be significant in district Hyderabad. On the other hand, non-significant relationship was found between Mathematics male teachers' self-efficacy and their male students' academic achievement in the subject of Mathematics in district Mirpur Khas, Jacobabad, and Karachi City district. Overall correlation trend in Mathematics male teachers' self-efficacy and their male students' achievement was found non-significant in the province of Sind.

ii. Relationship between female Math teachers' self-efficacy and their female students' academic achievement in the subject of Mathematics was found to be significant in district Hyderabad. However, relationship in Mathematics female teachers' self-efficacy and their female students' academic

achievement was found to be non-significant in the districts of Mirpur Khas, Jacobabad and Karachi City district.

Both the groups Mathematics male group and Mathematics female group indicated a weak trend of relationship. However, Mathematics female group was found to be higher than Mathematics male group.

iii. Relationship between English male teachers' self-efficacy and their students' academic achievement in the subject of English was found be significant in all the sample districts, viz. Mirpur Kas, Hyderabad, Jacobabad and Karachi City district. However, relationship between English male teachers' self-efficacy and their male students' academic achievement in the subject of English was found to be higher in district Mirpur Khas.

iv. Relationship between English female teachers' self-efficacy and their female students' academic achievement in the subject of English was found to be significant in all the sample districts. However, correlation in English female teachers' self-efficacy and their female students' academic achievement in the subject of English was found to be higher in Karachi City district.

v. Relationship between English female group was found to be higher than correlation between English male group teachers' self-efficacy and their students' academic achievement in the subject of English.

K.P.

Gender wise relationship in the province of the KP. summarized as:

i. Relationship between Math male teachers' self-efficacy and male students' academic achievement in the subject of Mathematics was found to be significant in the districts of Peshawar and Karak. On the other hand, non-significant relationship was observed between Math male teachers' self-

efficacy and their male students' academic achievement in district Lakki and district Bannu.

ii. Relationship between Math female teachers' self-efficacy and their female students' academic achievement in the subject of Mathematics was found to be significant in the districts of Peshawar and Karak. On the other hand, non-significant relationship was observed between Math female teachers' self-efficacy and their female students' academic achievement in the subject of Mathematics in the districts of Lakki and Bannu. Correlation between Math female teachers' self-efficacy and their female students' academic achievement in the subject of Mathematics was observed to be higher as compared to correlation found between Math male teachers' self-efficacy and their male students' academic achievement in the subject of Mathematics in the province of K.P.

iii. Relationship between English male teachers' self-efficacy and their male students' academic achievement in the subject of English was found to be significant in the district of Peshawar and Karak. However, correlation between English male teachers' self-efficacy and their students' academic achievement in the subject of English was found to be non-significant in district Lakki and district Bannu. Correlation between English male teachers' self-efficacy and their male students' academic achievement was observed to be higher in district Karak than other sample districts of K.P.

iv. Relationship between English female teachers' self-efficacy and their female students' academic achievement in the subject of English was observed to be significant in the districts of Peshawar, Karak and Bannu. However, relationship between English female teachers' self-efficacy and their female students'

academic achievement in the subject of English was found to be higher in district Bannu than correlation observed between English female teachers' self-efficacy and their female students' academic achievement in the subject of English in the districts of Peshawar, Karak and Lakki in the province of K.P.

Balochistan

Gender wise relationship in the province of the Baluchistan is summarized as:

i. Relationship between Math male teachers' self-efficacy and their male students' academic achievement in the subject of Mathematics was found to be significant in Quetta City district. However, correlation was found to be non-significant between Mathematics male teachers' self-efficacy and their students' academic achievement in the subject of Mathematics in Sibi district.

ii. Relationship between Math female teachers' self-efficacy and their female students' academic achievement in the subject of Mathematics was found to be significant in Quetta City district and district Sibi. However, correlation between Math male teachers' self-efficacy and their male students' academic achievement in the subject of Mathematics was found to be higher in Quetta City district.

iii. Relationship between Mathematics male teachers' self-efficacy and their male students' academic achievement was found to be higher than correlation occurred between Mathematics female teachers' self-efficacy and their female students' academic achievement in the subject of Mathematics in the province of Balochistan.

iv. Relationship between English male teachers' self-efficacy and their male students' academic achievement in the subject of English was found to be significant in Quetta City district. However, relationship between English male teachers' self-efficacy and their students' academic achievement in the subject of English was found to be non-significant in district Sibi.

v. Relationship between English female teachers' self-efficacy and their female students' academic achievement in the subject of English was found to be significant in Quetta City district and district Sibi.

vi. Relationship trend was found to be higher between English female teachers' self-efficacy and their female students' academic achievement in the province of Balochistan.

Table 4.2 shows above recorded explanation for gender wise relationship between Math teachers' self-efficacy and their students' academic achievement in the subject of Mathematics. Likewise, table 4.3 shows explanation for gender wise relationship between English teachers' self-efficacy and their students' academic achievement in the subject of English.

Table: 4.2 Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subjects of Mathematics

Sr.	District	Mathematics Male group Pearson "r"	Sig./ Non sig.	Mathematics Female group Pearson "r"	Sig./ Non sig.
1	Chakwal	0.418	no sig.	0.493	no sig.
2	Attock	0.809	sig.	0.622	sig.
3	Mianwali	0.535	no sig.	0.627	no sig.
4	Leyyah	0.725	sig.	0.502	no sig.
5	Muzaffar Garh	0.822	sig.	0.505	no sig.
6	Lahore City	0.974	sig.	0.942	sig.
7	Mirpur Khas	0.630	no sig.	0.746	sig.
8	Hyderabad	0.844	sig.	0.891	sig.
9	Jacobabad	0.419	no sig.	0.495	sig.
10	Karachi	0.418	no sig.	0.493	no sig.
11	Peshawar	0.955	sig.	0.898	sig.
12	Lakki	0.616	no sig.	0.574	sig.
13	Karak	0.995	sig.	0.981	sig.
14	Bannu	0.419	sig.	0.495	sig.
15	Sibi	0.543	sig.	0.635	sig.
16	Quetta	0.954	Sig.	0.897	Sig.

Table: 4.3 Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

Sr.	District	English male group Pearson "r"	Sig/ Non sig.	English female group Pearson "r"	Sig. /Non sig.
1	Chakwal	0.644	no sig.	0.934	sig.
2	Attock	0.889	sig.	0.920	sig.
3	Mianwali	0.500	no sig.	0.853	sig.
4	Leyyah	0.848	sig.	0.906	sig.
5	Muzaffar Garh	0.835	sig.	0.871	sig.
6	Lahore City	0.830	sig.	0.852	sig.
7	Mirpur Khas	0.959	sig.	0.855	sig.
8	Hyderabad	0.932	sig.	0.849	sig.
9	Jacobabad	0.927	sig.	0.838	sig.
10	Karachi	0.645	sig.	0.934	sig.
11	Peshawar	0.773	sig.	0.859	sig.
12	Lakki	0.378	no sig.	0.256	No sig.
13	Karak	0.958	sig.	0.897	sig.
14	Bannu	0.645	sig.	0.934	sig.
15	Sibi	0.500	no sig.	0.934	sig.
16	Quetta	0.773	sig.		

3. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics and in the subject of English

Punjab

In the province of the Punjab location wise relationship summarized as:

i. Relationship between Math rural teachers' self-efficacy and rural students' academic achievement in the subject of Mathematics was found significant in the districts of Chakwal, Attock, Mianwali, Leyyah and Muzaffar Garh. However, relationship between Math rural teachers' self-efficacy and their rural students' academic achievement was observed to be higher in district Attock than correlation found in the districts of Chakwal, Mianwali, Leyyah and Muzaffar Garh.

ii. Relationship between Math urban teachers' self-efficacy and their urban students' academic achievement in the subject of Mathematics was found to significant in district Attock. On the other hand, non-significant relationship was observed between Mathematics urban teachers' self-efficacy and their students' academic achievemet in the districts of Chakwal, Mianwali, Leyyah , and Muzaffar Garh.

iii. Relationship between Mathematics rural teachers' self-efficacy and their rural students' academic achievement was found to be significant, but non-significant correlation trend was observed between Mathematics urban teachers' self-efficacy and their students' academic achievement in the province of the Punjab.

iv. Relationship between English rural teachers' self-efficacy and their students' academic achievement in the subject of English was found to be significant in the districts of Chakwal, Attock, Leyyah and Muzaffar Garh. However, a non-significant relationship between English rural teachers' self-efficacy and their students' academic achievement in the subject of English was observed in district Mianwali. Correlation between English rural teachers' self-efficacy and their students' academic achievement was observed higher in district Muzaffar Garh.

v. Relationship between English urban teachers' self-efficacy and their urban students' academic achievement in the subject of English was found to be significant in all the sample districts of the Punjab, viz. Chakwal, Attock, Mianwali, Leyyah and Muzaffar Garh. However, relationship between English urban teachers' self-efficacy and their students' academic achievement in the subject of English was observed to be higher in district Attock as compared to

correlation found between urban English teachers' self-efficacy and their students' academic achievement in other sample districts in the province of the Punjab.

vi. Relationship trend between English rural teachers' self-efficacy and their students' academic achievement and correlation trend between English urban teachers' self-efficacy and their students' academic achievement was found as significantly higher in all the sample districts except district Mianwali. However, correlation trend between English urban teachers' self-efficacy and their students' academic achievement in the subject of English was observed to be higher in the province of the Punjab.

Sindh

i. Location wise relationship between Mathematics rural teachers' self-efficacy and their students' academic achievement was found to be significant in district Hyderabad and district Jacobabad. However, correlation between Mathematics rural teachers' self-efficacy and their students' academic achievement in the subject of Mathematics in district Mirpur Khas was observed non-significant. Correlation between Math rural teachers' self-efficacy and their rural students' academic achievement in the subject of mathematics was observed higher in district Hyderabad as compared to correlation occurred between Math rural teachers' self-efficacy and their students' academic achievement in other sample districts in the province of Sindh.

ii. Relationship between Math urban teachers' self-efficacy and their students' academic achievement in the subject of mathematics was found to be significant in district Hyderabad. However, non-significant correlation

between Math urban teachers' self-efficacy and their students' academic achievement was observed in the subject of Mathematics in the districts of Mirpur Khas and Jacobabad.

iii. Correlation between Math rural teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was observed higher as compared to Math urban teachers' self-efficacy and their students' academic achievement in the subject of Mathematics in the province of Sindh.

iv. Relationship between English rural teachers' self-efficacy and their students' academic achievement in the subject of English was found to be significant in the districts of Mirpur Khas, Hyderabad and Jacobabad. However, correlation between English rural teachers' self-efficacy and their students' academic achievement was observed higher in district Jcobabad.

v. Relationship between English urban teachers' self-efficacy and their students' academic achievement was found to be significant in all the sample districts in the province of Sind, viz. Mirpur Khas, Hyderabad, and Jacobabad. However correlation between English urban teachers' self-efficacy and their students' academic achievement was observed higher in district Mirpur Khas.

K.P.

i. Location wise relationship between Math rural teachers' self-efficacy and their students' academic achievement was found to be significant in the districts of Peshawar, Karak and Bannu. On the other hand, non-significant relationship was found between Math rural teachers' self-efficacy and their students' academic achievement in district Lakki. However, correlation between Math rural teachers' self-efficacy and their students' academic achievement was found to be higher in district Karak.

ii. Location wise relationship between Math urban teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found to be significant in the districts of Peshawar and Lakki. However, correlation between Math urban teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found to be higher in district Karak.

iii. Correlation between Math urban teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was observed higher than correlation was found between Math rural teachers' self-efficacy and their students' academic achievement in the subject of Mathematics.

iv. Location wise relationship between English rural teachers' self-efficacy and their students' academic achievement in the subject of English was found to be significant in the districts of Peshawar and Karak. On the other hand, non-significant correlation was observed in district Lakki and district Bannu. However, correlation was observed higher in district karak.

v. Location wise relationship between English urban teachers' self-efficacy and their students' academic achievement in the subject of English was found to be significant in the districts of Peshawar, Karak and Bannu.

Balochistan

i. In the province of Balochistan relationship between Math rural teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found to be non-significant in district Sibi. Likewise, relationship between urban Math teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found to be non-significant in district Sibi.

ii. Relationship between English rural teachers' self-efficacy and their students' academic achievement in the subject of English was found to be non-significant. On the other hand, relationship between English urban teachers' self-efficacy and their students' academic achievement in the subject of English was found to be significant.

Table: 4.4 Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics.

Sr.	District	Mathematics rural group Pearson "r"	Sig. /Non sig	Mathematics urban group Pearson "r"	Sig./ Non-sig.
1	Chakwal	0.814	sig.	0.590	Non-sig.
2	Attock	0.961	sig.	0.815	sig.
3	Mianwali	0.684	sig.	0.521	Non-sig.
4	Leyyah	0.742	sig.	0.544	Non-sig.
5	Muzaffar Garh	0.770	sig.	0.638	Non- sig.
6	Lahore city district	Lahore city has no rural area.			
7	Mirpur Khas	0.676	Non-sig.	0.691	Non-sig.
8	Hyderabad	0.873	sig.	0.859	sig.
9	Jacobabad	0.814	sig.	0.625	Non-sig.
10	Karachi	Karachi city has no rural area.			
11	Peshawar	0.923	sig.	0.892	sig.
12	Lakki	0.362	Non-sig.	0.866	sig.
13	Karak	0.977	sig.	0.979	sig.
14	Bannu	0.814	sig.	0.590	Non-sig.
15	Sibi	0.683	Non-sig.	0.521	Non-sig.
16	Quetta	Quetta city has no rural area.			

Table: 4.5 Location wise relationships between teachers' self-efficacy and students' academic achievement in the subject of English

Sr.	District	English rural group Pearson "r"	Sig./ non sig	English urban group Pearson "r"	Sig./ non sig.
1	Chakwal	0.747	sig.	0.925	sig.
2	Attock	0.864	sig.	0.953	sig.
3	Mianwali	0.470	Non-sig.	0.904	sig.
4	Leyyah	0.866	sig.	0.909	sig.
5	Muzaffar Garh	0.873	sig.	0.823	sig.
6	Lahore City	Lahore city has no rural area.			
7	Mirpur Khas	0.910	sig.	0.872	sig.
8	Hyderabad	0.897	sig.	0.837	sig.
9	Jacobabad	0.927	sig.	0.838	sig.
10	Karachi	Karachi city has no rural area.			
11	Peshawar	0.858	Sig.	0.945	Sig.
12	Lakki	0.300	Non-sig.	0.327	Non-sig.
13	Karak	0.948	Sig.	0.924	Sig.
14	Bannu	0.746	Non-sig.	0.925	Sig.
15	Sibi	0.469	Non-sig.	0.895	Sig.
16	Quetta	Quetta city has no rural area.			

DISCUSSION

In the discussion part the descriptive statistics of items on the instrument has been given. Descriptive statistics has been discussed under the heading item analysis, followed by discussion on results of hypotheses testing.

Item-Total Statistics

Item No.	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
item1	90.04	140.100	.758	.976
item2	90.45	140.804	.685	.976
item3	89.87	139.343	.721	.976
item4	89.92	138.294	.824	.975
item5	89.99	139.397	.718	.976
item6	89.79	138.155	.821	.975
item7	89.73	138.254	.825	.975
item8	89.69	139.536	.798	.976
item9	89.89	138.308	.791	.976
item10	89.81	138.498	.787	.976
item11	89.82	138.431	.800	.976
item12	90.26	138.284	.726	.976
item13	89.73	137.259	.821	.975
item14	90.06	138.523	.755	.976
item15	89.98	136.861	.828	.975
item16	89.82	137.425	.828	.975
item17	90.09	137.970	.816	.975
item18	89.97	137.833	.805	.976
item19	89.99	138.716	.778	.976
item20	90.03	137.584	.823	.975
item21	89.96	138.455	.792	.976
item22	90.07	137.722	.789	.976
item23	89.87	137.256	.841	.975
item24	90.12	138.123	.788	.976

Descriptive Statistics

Item No.	N	Minimum	Maximum	Mean	Std. Deviation
item1	512	2	5	3.82	.563
item2	512	2	5	3.41	.577
item3	512	3	5	4.00	.633
item4	512	3	5	3.94	.612
item5	512	2	5	3.88	.633
item6	512	3	5	4.08	.621
item7	512	3	5	4.14	.613
item8	512	3	5	4.17	.566
item9	512	2	5	3.98	.635
item10	512	2	5	4.06	.628
item11	512	2	5	4.05	.622
item12	512	2	5	3.61	.689
item13	512	2	5	4.14	.667
item14	512	3	5	3.81	.651
item15	512	3	5	3.88	.681
item16	512	3	5	4.05	.653
item17	512	3	5	3.78	.634
item18	512	3	5	3.89	.649
item19	512	3	5	3.88	.623
item20	512	3	5	3.84	.648
item21	512	3	5	3.90	.626
item22	512	2	5	3.80	.668
item23	512	3	5	4.00	.652
item24	512	3	5	3.75	.647

Item-total statistics and descriptive statistics are given above and discussed under the heading item analysis.

Item Analysis

In the present section research has been given item analysis based on the teachers' responses about their perception of efficacy beliefs to the 24 items on the Teachers' Sense of Efficacy Scale developed by Tschannen – Moran & Hoy, 2000. The teachers were asked to indicate their responses against a 5-point likert scale ranging from 1 indicating "nothing ″ to 5 representing" a great deal ″ . The descriptive statistics of 24 items on the instrument were presented along with means and Standard deviations for each item on the scale. The overall responses of the items on the instrument against the likert scale lie against "quite a bit ″ which indicates that teacher can do a serious and thoughtful effort toward specific condition. The overall response for item 1, "How much can you do to get through to the most difficult students? ″ Was quite a bit' on the average. The standard deviation value .563 showing that there was not diversity among the respondents. The higher means (4.05 to 4.17), scored on items 6, 7, 8, 10, 13 and 16 indicated that the teachers who scored more on these items thought themselves more skillful in transmitting meaningful knowledge to their students as compared to teachers who scored low on these items. Teachers with higher score on items 6, 7, 8, 10, 13, and 16 exhibited their expertise providing challenging activities to engage their students. They were more proficient in experimenting innovative instruction to promote meaningful learning. They showed skills in smoothly running their lessons without interruption. It manifested their command in classroom management.

All the 24 items in the instrument were scored on a 5-point Likert scale. The table on descriptive statistics indicated that teachers overall scored above the midpoint of 3 on the Likert scale. They placed themselves on the point 4 on the Likert scale. It

was concluded that these teachers showed reasonable confidence upon their capabilities to promote meaningful learning.

Discussion of Results of the Hypotheses Testing

The main objective of the study was to investigate the relationship between teachers' self-perceptions about their capabilities and their students' academic achievement. The findings of this study also depicted the present picture of relationship between male teachers' efficacy and male students' academic achievement. Relationship between rural teachers' efficacy and their students' academic achievement, and relationship between urban teachers' efficacy beliefs and students' academic achievement were also studied.

The results of the hypotheses testing were discussed in the light of relationship between teachers' self-efficacy and their students' academic achievement in examination. Hypotheses were tested at 0.05 level of significance. Possible explanations about high, moderate or low correlation were also discussed.

The first most important hypothesis in the present study was, "There is no significant relationship between teachers' self-efficacy and students' academic achievement". This hypothesis was tested to investigate whether teachers' (male + female) self-efficacy and their students' have any relationship? The correlation between teachers' efficacy scores and students' academic achievement scores in the subject of Mathematics and in the English was determined using Pearson r, the product moment correlation coefficient. A significant relationship at 0.05 level was observed between teachers' efficacy scores and students' academic achievement scores in the subject of mathematics in all the sample districts of the Punjab. However, in Lahore city district the correlation between teachers' (male + female) self-efficacy and their related students' academic achievement was very high. This is

because; Lahore has been a seat of learning for many centuries. The city had dominating scholarship culture throughout its history. Due to the learning culture context and the facilities available therein the city, the correlation between teachers' self-efficacy and students' academic achievement is very strong. These results supported the findings of Zimmerman (1989a). The results of the study conducted by Zimmerman summarized, teachers who showed high efficacy beliefs significantly increased students' motivation and kept the learners on task till they mastered the content. Yost (2002) concluded that high efficacious teachers tended to provide better learning environment and practiced innovative instructional strategies that impacted students' learning greatly. Pajares and Miller (1994) summarized their findings that teachers' efficacy beliefs markedly impacted students' performance and achievement in the subject of Mathematics.

The relationship between teachers' (male + female) self-efficacy and their students' (male + female) academic achievement as a whole in the subject of English was observed highly significant in the province of the Punjab. Relationship between English teachers' (male + female) efficacy beliefs scores and their students' (male + female) academic achievement scores was observed significant at the 0.05 level in all the sample districts of the Punjab. The correlation between English teachers' (male + female) efficacy beliefs scores and their related students' academic achievement scores was observed higher as compared to correlation observed for math teachers and their related students' academic achievement. In other words English teachers exhibited high sense of efficacy behavior that indicated their command on teaching learning process in the context of their local environment. This result supported the research findings given by Zimmerman and Martinez – Pons (1988). These researchers summarized that teachers high in efficacy beliefs strengthened their

students' self- regulation that promoted their academic achievement in the subject of mathematics and English. These researchers further explained that teachers' efficacy beliefs positively impacted their students' classroom learning self-regulation and motivation.

In contrast, Raudenbush et al. (1992) found that efficacy beliefs of teachers about their capabilities to teach their students were highly context specific. They explained further that mathematics teachers' efficacy beliefs and science teachers' efficacy beliefs indicated strong effects upon their students' academic achievement. On the other hand, English teachers and social studies teachers did not show mark able impact upon their students' learning.

In the province of Sind, the correlation between the teachers'(male + female) self-efficacy and students' academic achievement scores found significant in all the sample districts, Mirpur Khas, Hyderabad, Jacobabad, and Karachi. However, relationship between math teachers' (male + female) efficacy scores and their related students' academic achievement scores was higher in Hyderabad district as compared to other sample districts of the Sind province. In the subject of English significant correlation was found between English teachers' (male + female) efficacy scores and their related students' academic achievement scores in all the sample districts of the Sind province. However, a strong relationship was found between English teachers' (male + female) self-efficacy and their related students' academic achievement scores in Mirpur Khas district as compared to other sample districts.

In the province of K.P. Correlation between Mathematics teachers' (male + female) efficacy scores and their related students' academic achievement scores was found to be significant in all the sample districts. In the subject of English a significant correlation was found between English teachers' (male + female) efficacy

scores and their related students' academic achievement scores. On the other hand, in Lakki district non-significant relationship was observed. It indicated a conflicting trend in correlation as compared to other sample districts of the Province. This contrast in correlation showed resemblance with the findings of Raudenbush et al. (1992). The possible reason for this gap may be the environment of the learners. Lack of proper training for teaching English language at secondary level is the main factor that negatively impacted students' academic achievement in the subject of English.

In the province of Baluchistan the correlation between Mathematics teachers (male + female) efficacy scores and their related students' academic achievement scores in the subject of Mathematics was found to be significant in Sibi district and district Quetta. However, the relationship was observed higher in district Quetta as compared to relationship observed in Sibi district. This is because; Sibi is a remote rural area of the Baluchistan showing little interest in education.

The second hypothesis formulated in this study was, "There is no significant relationship between teachers' self-efficacy and students' academic achievement (gender wise) in the subject of mathematics." The second null hypothesis stated that there is no statistically significant relationship at the 0.05 level for the independent variable teachers' efficacy scores and the dependent variable of students' academic achievement scores. The second null hypothesis was tested to observe relationship between male math teachers' efficacy scores and their related male students' achievement scores in the subject of mathematics. Further this hypothesis encompassed relationship between female math teachers' efficacy scores and their related female students' academic achievement scores in the subject of mathematics.

In the province of the Punjab relationship between male math teachers' efficacy scores and their related male students' academic achievement scores in the

subject of Math was found to be significant in the sample districts; Attock, Leyyah, Muzaffar Garh and Lahore city district. However, the correlation was not found significant between Math male teachers' efficacy scores and their related male students' academic achievement scores in the subject of Mathematics in district Chakwal and district Mianwali. It showed a trend of less skills and little command over the content area of the Mathematics. This resulted in that Math teachers did fail to increase their students' performance and achievement. This gap for non-significant correlation between Math teachers' efficacy beliefs scores and their related students' academic achievement scores in Chakwal district and Mianwali district supported the research findings of Shunk (1994). The researcher concluded that without command on content area and expertise in skills strong beliefs in one's capabilities couldn't generate desired outcomes. Bandura (1997) also described that overestimate of efficacy beliefs about capabilities may lead to weak predictions about results.

Relationship between Math female teachers' efficacy scores and their related female students' academic achievement scores in the subject of Mathematics was found to be significant in district Attock and Lahore city district. On the other hand, in the sample districts; Chakwal, Mianwali, Leyyah and Muzaffar Garh correlation between Math female teachers' efficacy scores and their related female students' academic achievement scores in the subject of Mathematics was not found to be significant. It indicated a low efficacy perception trend among female teachers for Mathematics to teach their related female students. This trend in correlation among female Math teachers' efficacy beliefs scores and their related students' academic achievement scores in the sample districts of the province of the Punjab supported the findings indicated in the research study conducted by Wright, Horn and Sanders (1997). These researchers concluded that teachers' usefulness grounded in teachers'

expert knowledge and efficacy to transmit content to their learners. Expert knowledge and teacher efficacy acted as principal feature to promote meaningful active learning. In other words self-efficacy without expert knowledge and skills may not improve meaningful learning.

In the province of Sindh the correlation between male Math teachers' efficacy scores and their related male students' academic achievement scores in the subject of Math was found to be significant in district Hyderabad. On the other hand, correlation in the other sample districts; Mirpur Khas, Jacobabad and Karachi did not reveal significant. It indicated that Math male teachers did not show keen interest for teaching Mathematics. It showed that teachers possessed poor command over knowledge in the subject of Math. As shunk (1994) found that teachers' efficacy without command over the subject proved ineffective to promote students' academic achievement to desired level.

Relationship between female Math teachers' efficacy scores and their related female students' academic achievement scores in the subject of Mathematics was found to be significant in sample districts; Mirpur khas, Hyderabad and Jacobabad. It indicated female Math teachers' commitment to teach Mathematics. It reflected their command over subject area of the Mathematics. The reflection of low correlation was observed in the male Math teachers' performance as compared to female Math teachers' performance in the environment of sample districts in the province of Sind. It supported the research findings of Hall and Ponton (2002). These researchers concluded that teachers who did not show strong efficacy beliefs to teach Mathematics may not produce successful learning experience to their students. Consequently their students' hang back to gain perfection in Mathematics knowledge and desired academic achievement level in Mathematics. Shunk, D. H. (1982) also

indicated that novel experimentation in the process of teaching and learning along with effort related feedback heightened students' efficacy beliefs and students' mathematics performance and achievement. Further, gender differences were diminished. In other words novelty and remedial feedback provided the basis to acquire perfection in skills and mastery over the content in Math. For this very reason female Math teachers performed better as compared to male Math teachers in the sample districts in the province of Sindh.

In the province of K.P. Relationship between male Math teachers' efficacy scores and their related students' academic achievement scores was found to be significant in the sample districts of Peshawar and karak. On the other hand, correlation in lakki district and district Bannu was not found to be significant. Occurrence of weak correlation between Math male teachers' efficacy scores and their related male students' academic achievement scores was due to the environment of those particular areas. Since teacher efficacy is highly context specific, it varies according to the trend of people toward educating their children. It indicated the reflection of research findings by Raudenbush et al. (1992). These researchers summarized that teachers' efficacy beliefs fluctuated over a period of time due to environmental factors like students' family background, interest in education and the context where teacher performed. Correlation between Math female teachers' efficacy scores and their related female students' academic achievement scores was found to be significant in the sample district Peshawar. In other sample districts Karak, Bannu and Lakki relationship was not found to be significant. These conflicting indicators in correlation were due to environment of those particular areas. Public weak family trend to support girls' education was the main factor that girls did lag behind in the

core subjects like Mathematics. Female Mathematics teachers' lack of command over the subject matter may be the main factor for weak correlation.

In the province of Balochistan relationship between male Math teachers' efficacy scores and their related male students' academic students' scores was found to be significant in the sample district Quetta. In Sibi district correlation was not found to be significant. Educational facilities in Quetta city district are far better as compared to district Sibi that is located in remote countryside. Awareness to value education in public not created. In the similar fashion relationship between Math female teachers' efficacy scores and their related female students' academic achievement scores was found to be significant in Quetta district. In Sibi district correlation was not found to be significant. Due to customs prevailing there female students do not receive family support as compared to male students.

Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

The third hypothesis in this study was, "There is no significant relationship between teachers' self-efficacy and students' academic achievement gender wise in the subject of English." The third null hypothesis stated that there is no statically significant relationship at 0.05 level between teachers' self-efficacy and students' academic achievement. This hypothesis was tested to find out gender wise relationship in the subject of English.

In the province of the Punjab correlation between male teachers' efficacy scores and their related students' academic achievement scores in the subject of English was found to be significant in the sample districts Attock, Leyyah, Muzaffar Garh and Lahore city district. On the other hand, relationship between English male teachers' efficacy scores and their related male students' academic achievement scores in the

subject of English was not found to be significant in district Chakwal and Mianwali. These conflicting indicators of relationship are due to the environment of that particular area. Poor facilities for teaching English language could be the reason for poor results. Relationship between female English teachers' efficacy scores and their related female students' academic achievement scores was found to be significant in all the sample districts of the Punjab. Relationship between English female teachers' efficacy scores and their related female students' academic achievement score ranged from 0.852 to 0.920 at 0.05 level. It indicated that English language is a female domain. These results supported the research findings summarized by Eccles (1987). The researcher declared that English language is girls' domain.

In the province of Sindh correlation between male English teachers efficacy scores and their related male students' academic achievement scores at 0.05 level was found to be significant. The correlation ranged from 0.0645 to 0.959. It indicated that male English teachers' showed strong efficacy beliefs upon their capabilities to teach their students. These results indicated the contrast of Eisenberg et al. (1996). These researchers concluded that male students are dominant only in the areas of Math and sciences. And Hacket (1985) also summarized that Math and Math related areas were found male dominated. In the present study English language was proved an interest area for male teachers in that particular area of Sindh. Relationship between female English teachers' efficacy scores and their related female students' academic achievement scores was found to be significant at 0.05 levels. Correlation in the female English group ranged from 0.838 to 0.934. These findings supported the research findings of Noran et al. (1993). These researchers summarized that girls indicated more positive behavior towards learning English language. It indicated that English language is female domain.

In the province of K.P. Relationship between male English teachers' efficacy scores and their related male students' academic achievement scores was observed to be significant in the sample districts of Peshawar, Karak and Bannu. Correlation in lakki district was not found to be significant. It was due to the environment of that particular area where people take little interest to invest to educate their children. Male English teachers have little command over content of the subject. Lack of proper training of male English teachers may be the main reason for low correlation. Anyhow in the district of Peshawar, Karak and bannu the correlation was observed higher. Correlation in the female English teachers' efficacy scores and their related female students' academic achievement scores was observed to be significant in the sample districts Peshawar, Karak and Bannu. The correlation in the female group ranged from 0.859 to 0.934. It indicated female commitment to teach English to their students. The female teachers showed strong efficacy level. These findings of the present research supported the research findings put forth by Pajares (1996). Assessment of gender differences was summed up that in the area of English language female showed more positive behavior. They indicated their interest and commitment to teach to their related students.

In the province of Balochistan correlation between English male teachers efficacy scores and their related male students' academic achievement scores was found to be significant in Quetta district as well as in district Sibi. Likewise, the correlation was found to be significant in the female English teachers' efficacy scores and their related female students' academic achievement scores in the sample district Quetta and district Sibi. Sibi district is a remote countryside where people take little or no interest to educate their daughters as compared to their male children. In these challenging circumstances female English teachers and their related female students

exhibited strong belief upon their capabilities in teaching and learning English language. It revealed girls worth and command over subject and proved that English language is female domain.

The third hypothesis was formulated in this study was "there is no significant relationship between teachers self-efficacy and students' academic achievement location wise in the subject of Mathematics". The third hypothesis was tested to observe relationship between teacher's self-efficacy and students' academic achievement in the rural areas and urban areas.

Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics.

The fourth null hypothesis in this study was, "There is no significant relationship between teachers' self-efficacy and students' academic achievement location wise in the subject of Mathematics." The fourth null hypothesis stated that there is no statically significant relationship at 0.05 level between teachers' self-efficacy and students' academic achievement. This hypothesis was tested to find out location wise relationship in the subject of Mathematics.

In the province of the Punjab the correlation between Math rural teachers' efficacy scores and their related rural students' academic achievement in the subject of Math was found to be significant in the sample districts of Chakwal, Attock, Mianwali, Leyyah, and Muzaffar Garh. The correlation ranged from0.684 to 0.961. It revealed male Math teachers' command over the subject of Mathematics. They showed their perfection to promote meaningful learning. These findings are in line with the research findings of Wright, Horn and Sanders (1997). These researchers summarized that teachers' usefulness were characterized by the difference they produced in their students' learning.

Relationship between urban Math teachers' efficacy scores and their related students' academic achievement scores was found to be significant in district attock. On the other hand, in other sample districts urban Math teachers' efficacy scores and their related urban students' academic achievement scores was found to be non-significant. It indicated a drawback for teachers' efficacy and teachers' command over the subject of Mathematics. It depicted a low efficacy picture and weak commitment to teach Mathematics. These conflicting findings bear evidence for Bragh and Chartrand (1999) arguments that students' self-efficacy beliefs and sense of worth at elementary stage build the foundation of subsequent future life study habits and thinking development that impact their future lives. It is further supported by the Shunk (1982) research findings about students' efficacy beliefs to learn Mathematics. The researcher stated that students' efficacy beliefs predict their future Math performance and achievement. In other words these research studies argued that students' perceptions and skills developed at middle stages laid foundation for future performance in Mathematics.

In the province of Sindh relationship between rural Math teachers' efficacy scores and their related rural students' academic achievement scores was found to be significant in the sample district Hyderabad. On the other hand, in other sample districts Mirpur Khas, and Jacobabad relationship between Math rural teachers' efficacy scores and their related rural students' academic achievement scores was not found to be significant. Similar trend of correlation was also observed for urban Math teachers' efficacy scores and their related urban students' academic achievement scores in the subject of Mathematics. It indicated most disadvantageous condition for teaching Mathematics. Tschan-Moran and Hoy& Hoy (1998) concluded that poor learning outcomes, feebleness in the face of setback and little inspiration for learning

were grounded in low efficacy perceptions. These researchers further stated that by supplementing success experience, spirit and proper training and other proven counteractive strategies diminished low efficacy beliefs and it adverse impact upon learning.

In the province of Kyber P. K. relationship between rural Math teachers' self-efficacy and their related rural students' academic achievement in the subject of Mathematics was found to be significant in the sample districts of Peshawar, Karak and Bannu. On the other hand, relationship was not found significant in district Lakki. These findings support the research findings of Bouffard-Bouchard (1989). The researcher stated that difference in the performance of students' achievement in the subject of Mathematics directly related to their efficacy beliefs. The stronger the efficacy beliefs higher the Math performance and academic achievement reflected. Similarly lower the efficacy beliefs exhibited, lower learning outcomes indicated. Similarly correlation between urban Math teachers' efficacy scores and their related urban students' Mathematics achievement was found to be significant in the sample district of Peshawar, Lakki and district Karak. It indicated that urban Math teachers' and their related urban students performed better as compared to their counterparts performed in rural areas.

In the province of Balochistan relationship between rural Math teachers' self-efficacy and their related rural students' academic achievement was not found to be significant in the sample district Sibi. Sibi is one of the remote areas of the Balochistan. The possible reason for low relationship between Math rural teachers' efficacy scores and their related students' academic achievement scores was the environment of that particular area. People of such far-flung area take little or no

interest to educate their children. Students face lack of family support for easy success to education.

Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English.

The fifth null hypothesis in this study was, "There is no significant relationship between teachers' self-efficacy and students' academic achievement location wise in the subject of in the subject of English." The fifth null hypothesis stated that there is no statically significant relationship at 0.05 level between teachers' self-efficacy and students' academic achievement. This hypothesis was tested to find out location wise relationship in the subject of English.

In the province of the Punjab rural English teachers' efficacy scores and their related rural students' academic achievement scores in the subject of English was observed significant in the sample districts; Chakwal, Attock, Leyyah and Muzaffar Garh. The correlation ranged from 0.747 to 0.873. at 0.05 level of significance. It indicated teachers' high sense of efficacy beliefs upon their capabilities to teach English language to their related students. Urban areas were considered advanced in learning English language since environment of urban areas offered multiple learning facilities for English language learning. Research findings in the present study for sample districts of Punjab presented a contrast to the research findings by Rahil Mayuddin et al. (2006). These researchers concluded that urban areas students' exhibited higher trend for learning English language as compared to their counterparts in the rural areas. Similarly relationship between urban English teachers' efficacy scores and their related rural students' academic achievement scores was observed very strong. The correlation ranged from 0.823 to 0.953. at 0.05 level of significance.

It indicated urban teachers' and their related students' better performance compared to their rural counterparts.

In the Province of Sindh relationship between English rural teachers' efficacy scores and their related students' academic achievement scores was observed significant in the sample districts; Mirpur khas, Hyderabad and Jacobabad. The correlation ranged from 0.897 to 0.927. at 0.05 level of significance. In urban areas the relationship ranged from 0.0837 to 0.872. at 0.05 level of significance. Correlation in the English rural group was found higher as compared to English urban group.

In the province Khyber K.P. relationship between rural English teachers' efficacy scores and their related rural students' academic achievement scores was found to be significant in the sample districts Peshawar and karak. The correlation ranged from 0.858 to 0.948. at 0.05 level of significance. Whereas, correlation in urban English teachers' efficacy scores and their related urban students' academic achievement scores was observed significant in the sample districts Peshawar, Karak and Bannu. The correlation ranged from 0.924 to 0.945. at 0.05 level of significance. It indicated English urban group better performance to their rural counterparts. English urban teachers' self-efficacy and their students' academic achievement reflected better correlation as compared to rural English teachers' self-efficacy and their students' academic achievement.

In the province of Balochistan correlation in the sample district Sibi was observed to be significant between urban English teachers' self-efficacy and their students' academic achievement in the subject of English. On the other hand, relationship between rural English teachers' self-efficacy and their students' academic achievement in the subject of English was not found to be significant.

CHAPTER 5
SUMMARY, FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

One of the major factors that involve in promoting students' learning is teachers' beliefs about their capabilities to affect students' academic achievement, regardless of students' previous achievement or other external factors. An individual teacher's perceptions about his or her capabilities to positively affect students' performance and achievement, is grounded in Bandura's social cognitive theory. Teachers having high level of efficacy beliefs about their capabilities expend hard efforts; consume more time teaching their students. They experiment innovative instructional strategies to increase students' learning and achievement. To measure teaching behaviors in terms of teachers' efficacy beliefs, a study entitled "Teachers self-efficacy and students' academic achievement at secondary school level in Pakistan" was conducted.

The objectives of the study included:

1. To measure district wise relationship between teachers' self-efficacy and students' academic achievement.
2. To measure district wise relationship between teachers' self-efficacy and students' academic achievement gender wise.
3. To measure district wise relationship between teachers' self-efficacy and students' academic achievement location wise.

In order to measure various aspects of relationship between teachers' efficacy beliefs and their students' academic achievement the following null hypotheses were tested:

Ho 1. There is no significant relationship between teachers' self-efficacy and students' academic achievement in the subject of English and Mathematics.

Ho 2. There is no significant relationship between teachers' self-efficacy and students' academic achievement gender wise in the subject of Mathematics.

Ho 3. There is no significant relationship between teachers' self-efficacy and students' academic achievement gender wise in the subject of English.

Ho 4. There is no significant relationship between teacher self-efficacy and students' academic achievement location wise in the subject of Mathematics.

Ho 5. There is no significant relationship between teachers' self-efficacy and students' academic achievement location wise in the subject of English.

The population of the study consisted of all the teachers teaching 10th class in public sector secondary schools in all the four provinces of Pakistan. All the students who appeared in the annual examination 2009 secondary school certificate examination of various boards of intermediate and secondary education (BISE) in all the provinces of the country. Sample of the study consisted of 3072 participants with a break up of 512 teachers and 2560 students from all over the country.

From each sample school; two teachers (one Math teacher and the other English teacher) who were teaching the subjects of Math and English to the same 10th class were included in the sample of the study by purposive sampling technique. Five students were randomly selected on the basis of at least 75% of the class attendance of above stated relevant subject teacher. The purpose of selecting students was to

measure relationship between teachers' efficacy beliefs scores and the academic achievement of students' in the relevant subject of English or Mathematics.

The study was delimited to 16 districts from all the four provinces of the country. From these districts 256 public sector secondary schools were included in the sample of the study.

In order to collect teachers' opinions about their efficacy tool developed by Tschannen-Moran and Hoy, (2001) was used. This tool was very suitable for measuring teachers' beliefs about their personal capabilities in the classroom teaching-learning context of Pakistan. The research tool developed by Tschannen-Moran and Hoy, (2001) teacher efficacy scale converted in to Urdu language to make it understandable for secondary school teachers in the context of Pakistan.

Developed Urdu version of the tool was then pilot tested and consulted with the supervisor and expert committee. Thus, finalized tool was applied for data collection. Five point Likert scale was used to collect the teachers' efficacy beliefs.

In order to draw conclusions, the collected data were presented in tabular form. Since the study involved interval data with two variables i.e. teachers' efficacy beliefs scores and students' academic achievement scores, The Pearson r Product Moment was used. It is an appropriate coefficient for determining relationship.

5.2 FINDINGS

DISTRICT CHAKWAL

1. Relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics and English.

   In Table No. 1. Relationship between Math teachers' (male +female) self-efficacy and their students' academic achievement in the subject of Mathematics was found to be 0.582 which was significant at 0.05 level.

Relationship between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English was found to be 0.807. This was significant at 0.05 level.

2. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

In table No.2, Relationship between Male Math teachers' self-efficacy and students' academic achievement was found to be 0.418. This was not significant at 0.05 level. Relationship between female Math teachers' self-efficacy and students' academic achievement was not significant at 0.05 level.

3. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

In Table No. 3, Relationship Between male English teachers' self-efficacy and their male students' academic achievement was found to be 0.644. This was significant at 0.05 level. Relationship between female English teachers and their female students' academic achievement was found 0.934. Which was significant at 0.05 level.

4. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics.

In Table No. 4, Relationship between male Math teachers' self-efficacy and their students' academic achievement was found to be 0.814. Which was significant at 0.05 level. Relationship between urban Math teachers' self-efficacy and their students' academic achievement was found to be 0.590. This was not significant at 0.05 level.

5. Location wise relationship between teachers' self-efficacy and students' achievement in the subject of English

In Table No.5, Relationship between rural English teachers' self-efficacy and their students' academic achievement was found to be 0.747. Which was not significant at 0.05 level. Relationship between urban English teachers' self-efficacy and their students' academic achievement was found to be 0.925. This was significant at 0.05 level.

DISTRICT ATTOCK

1. Relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics and English.

   In Table No.6, Relationship between Mathematics teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics was found to be 0.713. This was significant at 0.05 level. Relationship between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English was found to be 0.906. This was significant at 0.05 level.

2. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics.

   In Table No.7, Relationship between male Math teachers' self-efficacy and their male students' academic achievement in the subject of Mathematics was found to be 0.809. This was highly significant at 0.05 level. Relationship between female Math teachers' self-efficacy and their female students' academic achievement in the subject of Mathematics was found to be 0.622. This was significant at 0.05 level.

3. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English.

In Table No.8, Relationship between male English teachers' self-efficacy and their male students' academic achievement in the subject of English was found to be 0.889. This was highly significant at 0.05 level. Relationship between female teachers' self-efficacy and their female students' academic achievement in the subject of English was found to be 0.920. This was highly significant at 0.05 level. It reflected female English teachers' command in the subject of English.

4. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

In Table No.9, Relationship between rural Math teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found to be 0.961. This was highly significant at 0.05 level. Relationship between urban Math teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found to be 0.815. This was significant at 0.05 level. Correlation between rural Math teachers' self-efficacy and their students' academic achievement was found higher as compared to urban Math teachers' self-efficacy and their students' academic achievement in the subject of Mathematics.

5. Location wise relationship between teachers' self-efficacy and students' achievement in the subject of English

In Table No.10, Relationship between rural English teachers' self-efficacy and their students' academic achievement in the subject of English was found to be 0.864. This correlation was significant at 0.05 level. Relationship between urban English teachers' self-efficacy and their students' academic achievement in the subject of English was found to be 0.953. This was highly significant positive

correlation at 0.05 level. Correlation between urban English teachers' and their students' academic achievement was found higher as compared to correlation between rural group in the subject of English.

DISTRICT MIANWALI

1. Relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics and English

   In Table No.11, Relationship between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics was found to be 0.594. This was significant at 0.05 level. Relationship between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English was found to be 0.622. This substantial correlation was significant at 0.05 level.

2. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

   In Table No.12, Relationship between Math male teachers' self-efficacy and their male students' academic achievement in the subject of Mathematics was found to be 0.535. This was not significant at 0.05 level. Relationship between female Math teachers' self-efficacy and their female students' academic achievement in the subject of mathematics was found to be 0.627. This was not significant at 0.05 level.

3. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

   In Table No.13, Relationship between male English teachers' self-efficacy and their male students' academic achievement in the subject of English was found to be 0.500. This was not significant at 0.05 level. Relationship between female

English teachers' self-efficacy and their female students' academic achievement in the subject of English was found to be 0.853. This was highly significant at 0.05 level.

4. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

   In Table No.14, Relationship between rural Math teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found to be 0.684. This was not significant at 0.05 level. Relationship between urban Math teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found to be 0.521. This was not significant at 0.05 level.

5. Location wise relationship between teachers, self-efficacy and students' academic achievement in the subject of English

   In Table No.15, Relationship between rural English teachers' self-efficacy and their students' academic achievement in the subject of English was found to be 0.470. This was not significant at 0.05 level. Relationship between urban English teachers' self-efficacy and their students' academic achievement was found to be 0.904. This was highly significant positive correlation at 0.05 level.

DISTRICT LEYYAH

1. Relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics and English

   In Table No.16, Relationship between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics was found to be 0.632. This was significant at 0.05 level. Relationship between English teachers' (male + female) self-efficacy and

their students' academic achievement in the subject of English was found to be 0.875. This was significant at 0.05 level.

2. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

   In Table No.17, Relationship between Math male teachers' self-efficacy and their male students' academic achievement was found to be 0.725. This was significant at 0.05 level. Relationship between Math female teachers' self-efficacy and their female students' academic achievement was found to be 0.502. This was not significant at 0.05 level.

3. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

   In Table No.18, Relationship between English male teachers' self-efficacy and their male students' academic achievement in the subject of English was found to be 0.848. This was highly significant at 0.05 level. Relationship between English female teachers' self-efficacy and their female students' academic achievement was found to be 0.906. This was highly significant at 0.05 level. Correlation between English female teachers' self-efficacy and there female students' academic achievement is higher as compared to correlation found between male English teachers' self-efficacy and their male students' academic achievement in the subject of English.

4. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

   In Table No.19, Relationship between Math rural teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found to be 0.742. This was significant at 0.05 level. Relationship between

Math urban teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found to be 0.544. This was not significant at 0.05 level.

5. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

In Table No.20, Relationship between rural English teachers' self-efficacy and their students' academic achievement in the subject of English was found to be 0.866. This was highly significant at 0.05 level. Relationship between urban English teachers' self-efficacy and their students' academic achievement in the subject of English was found to be 0.909. This was significant at 0.05 level. Correlation between English urban teachers' self-efficacy and their students' academic achievement was found to be higher as compared to relationship between English rural teachers' self-efficacy and their students' academic achievement in the subject of English.

DISTRICT MUZAFFAR GARH

1. Relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics and English

In Table No.21, Relationship between Math teachers' (male + female) self-efficacy and their students' academic achievement was found to be 0.677. This was significant at 0.05 level. Relationship between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English was found to be 0.843. This was significant at 0.05 level. Correlation between English teachers' self-efficacy and their students' academic achievement in the subject of English was observed higher as compared to

compared to relationship found between Math teachers' self-efficacy and their students' academic achievement in the subject of Mathematics.

2. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

   In Table No.22, Relationship between Math male teachers' self-efficacy and their male students' academic achievement in the subject of Mathematics was found to be 0.827. This was significant at 0.05 level. Relationship between Math female teachers' self-efficacy and their female students' academic achievement in the subject of Mathematics was found to be 0.505. This was not significant at 0.05 level.

3. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

   In Table No.23, Relationship between English male teachers' self-efficacy and their students' academic achievement in the subject of English was found to be 0.835. This was significant at 0.05 level. Relationship between English female teachers' self-efficacy and their students' academic achievement was found to be 0.871. This was significant at 0.05 level. English female teachers and their female students reflected highly significant correlation in the subject of English.

4. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

   In Table No.24, Relationship between Math rural teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found to be o.770. This was significant at 0.05 level. Relationship between Math urban teachers' self-efficacy and their students' academic achievement in the

subject of Mathematics was found to be 0.638. This was significant at 0.05 level.

5. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

In Table No.25, Relationship between English rural teachers' self-efficacy and their students' in the subject of English was found to be 0.873. This was significant at 0.05 level. Relationship between English urban teachers' self-efficacy and their students' academic achievement in the subject of English was found 0.823. This was significant at 0.05 level.

LAHORE CITY DISTRICT

1. Relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics and English

In Table No.26, Relationship between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics was found to be 0.838. This was significant at 0.05 level. Relationship between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English was found to be 0.914. This was significant at 0.05 level.

2. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

In Table No.27, Relationship between Math male teachers' self-efficacy and their male students' academic achievement in the subject of Mathematics was found to be 0.974. This was significant at 0.05 level. Relationship between Math female teachers' self-efficacy and their female students' academic achievement was found to be 0.942. This was significant 0.005 level.

3. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

In Table No.28, Relationship between English male teachers' self-efficacy and their male students' academic achievement was found to be 0.830. This was significant at 0.05 level. Relationship between Male English teachers' self-efficacy and their male students' academic achievement was observed highly significant in the subject of English. Relationship between English female teachers' self-efficacy and their female students' academic achievement in the subject of English was found to be 0.852. This was significant at 0.05 level. Female English teachers and their female students reflected highly significant correlation in the subject of English as compared to male English teachers and their male students indicated in the subject of English.

DISTRICT MIRPUR KHAS

1. Relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics and English

In Table No.29, Relationship between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics was found 0.574. This was significant at 0.05 level. There was moderate correlation between Math teachers' self-efficacy and their students' academic achievement in the subject of Mathematics. Relationship between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English was found 0.894. It was significant at 0.05 level.

2. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

In Table No.30, Relationship between male Math teachers' self-efficacy and their male students' academic achievement in the subject of Mathematics was found to be 0.630. This was not significant at 0.05 level. Relationship between female Math teachers' self-efficacy and their female students' academic achievement in the subject of Mathematics was found 0.746. This was significant at 0.05 level.

3. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

In Table No.31, Relationship between English male teachers' self-efficacy and their male students' academic achievement was found to be 0.0959. This was significant at 0.05 level. Relationship between English female teachers' and female students' academic achievement in the subject of English was found to be 0.855. This was significant at 0.05 level. Female English teachers' and their female students' reflected highly significant relationship in the subject of English.

4. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

In Table No.32, Relationship between rural Math teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found to be 0.676. This was not significant at 0.05 level. Relationship between Math urban teachers' self-efficacy and their students' academic achievement was to be found 0.691. This was not significant at 0.05 level.

5. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

In Table No.33, Relationship between rural English teachers' self-efficacy and their students' academic achievement in the subject of English was found to be 0.910. This was significant at 0.05 level. Relationship between urban English teachers' self-efficacy and their students' academic achievement found was to be 0.872. This was significant at 0.05 level. Correlation between rural English teachers' self-efficacy and their students' reflected higher as compared to correlation occurred between English urban teachers' self-efficacy and their students' academic in the subject of English.

DISTRICT HYDERABAD

1. Relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics and English

   In Table No.34, Relationship between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics was found to be 0.829. This was significant at 0.05 level. Relationship between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English was found to be 0.875. This was significant at 0.05 level. English teachers and their students reflected highly significant correlation in the subject of English as compared to Math teachers' self-efficacy and their students' academic achievement reflected in the subject of Mathematics.

2. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

   In Table No.35, Relationship between Math male teachers' self-efficacy and their male students' academic achievement in the subject of Mathematics was found to be 0.844. This was significant at 0.05 level. Relationship between

Math female teachers' self-efficacy and their female students' academic achievement in the subject of Mathematics was found to be 0.891. This was significant at 0.05 level. Female Math teachers and their female students had higher correlation in the subject of Mathematics as compared to correlation occurred between male Math teachers' self-efficacy and their male students' academic achievement in the subject of Mathematics.

3. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

In Table No.36, Relationship between English male teachers' self-efficacy and their male students' academic achievement in the subject of English was found to be 0.932. This was significant at 0.05 level. Relationship between female English teachers' self-efficacy and their female students' academic achievement was found 0.849. This was significant at 0.05 level. Correlation between male English teachers' self-efficacy and their male students' academic achievement was higher as compared to correlation reflected between female English teachers' self-efficacy and their female students' academic achievement in the subject of English.

4. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject Mathematics.

5. In Table No. 37. Relationship between Math rural teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found 0.873. This was significant at 0.05 level. Relationship between Math urban teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found to be 0.859. This was significant at 0.05 level. Rural Math teachers' self-efficacy and their students' academic achievement

was observed higher the subject of Mathematics as compared to relationship occurred between urban Math teachers' self-efficacy and their students' academic achievement in the subject of Mathematics.

6. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

In Table No.38, Relationship between rural English teachers' self-efficacy and their students' academic achievement was found to be 0.897. This was significant at 0.05 level. Relationship between urban English teachers' self-efficacy and their students' academic achievement was found to be 0.837. This was significant at 0.05 level. Correlation between rural English teachers' self-efficacy and their students' academic achievement was observed higher as compared to relationship between urban English teachers' self-efficacy and their students' academic achievement in the subject of English.

DISTRICT JACOBABAD

1. Relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics and English

In Table No. 39. Relationship between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics was found to be 0.583. This was significant at 0.05 level. Moderate correlation was observed between Math teachers' self-efficacy and their students' academic achievement in the subject of Mathematics. Relationship between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English was found to be 0.893. This was significant at 0.05 level. Correlation between English teachers' self-efficacy and their students' academic achievement in the subject

of English was observed higher as compared to correlation found between Math teachers' self-efficacy and their students' academic achievement in the subject of Mathematics.

2. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

In Table No.40, Relationship between Math male teachers' self-efficacy and their students' academic achievement was found to be 0.419. This was non-significant at 0.0.5 level. Relationship between Math female teachers' self-efficacy and their female students' academic achievement was found to be 0.495.This was non-significant at 0.05 level.

3. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

In Table No.41, Relationship between English male teachers' self-efficacy and their male students' academic achievement in the subject of English was found to be 0.851. This was significant at 0.05 level. Relationship between English female teachers' self-efficacy and their female students' academic achievement in the subject of English was found to be 0.829. This was significant at 0.05 level. Correlation between English female teachers' self-efficacy and their female students' academic achievement in the subject of English was observed higher than correlation found between male English teachers' self-efficacy and their male students' academic achievement in the subject of English.

4. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

In Table No.42, Relationship between Math rural teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found to be 0.814. This was significant at 0.05 level. Relationship between Math urban teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found to be 0.625. This was significant at 0.05 level.

5 Location wise relationship between English teachers' self-efficacy and their students' academic achievement in the subject of English`

In Table No.43, Relationship between English rural teachers' self-efficacy and their students' academic achievement in the subject of English was found to be 0.927. This was significant at 0.05 level. Relationship between English urban teachers' self-efficacy and their students' academic achievement in the subject of English was found to be 0.838. This was significant at 0.05 level. Correlation between English rural teachers' self-efficacy and their students' academic achievement in the subject of English was found higher as compared to correlation reflected between English urban teachers' self-efficacy and their students' academic achievement in the subject of English.

DISTRICT KARACHI

1. Relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics and English.

In Table No.44, Relationship between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics was found 0.582. This was significant at 0.05 level. Relationship between English teachers' (male + female) self-efficacy and their students'

academic achievement in the subject of English was found 0.807. This was significant at 0.05 level.

2. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

n Table No.45, Relationship between Math male teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found 0.418. This was non-significant at 0.05 level. Relationship between Math female teachers' self-efficacy and their female students' students' academic achievement in the subject of Mathematics was found 0.493. This was non-significant at 0.05 level.

3. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

In Table No. 46. Relationship between male English teachers' self-efficacy and their students' academic achievement in the subject of English was found 0.645. This was significant at 0.05. Relationship between English female teachers' self-efficacy and their students' academic achievement was found 0.934. This was significant at 0.05 level. Correlation between English female teachers' self-efficacy and their students' academic achievement was found higher as compared to correlation found between English male teachers' self-efficacy and their students' academic achievement in the subject of English.

DISTRIC PESHAWAR

1. Relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics and English

In Table No.47, Relationship between Math teachers' (male + female) self-efficacy and their students' academic achievement was found 0.754. This was

significant at 0.05 level. Relationship between English teachers' (male + female) self-efficacy and their students' academic achievement was found 0.859. This was significant at 0.05 level.

2. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

In Table No.48, Relationship between Math male teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found to be 0.955. This was significant at 0.05 level. Relationship between Math female teachers' self-efficacy and their female students' academic achievement in the subject of Mathematics was found to be 0.898. This was significant at 0.05 level. Correlation between math Male teachers' self-efficacy and their male students' academic achievement was found higher as compared to correlation occurred between Math female teachers' self-efficacy and their female students' academic achievement in the subject of Mathematics.

3. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

In Table No.49, Relationship between English male teachers' self-efficacy and their male students' academic achievement was found 0.773. This was significant at 0.05 level. Relationship between English female teachers' self-efficacy and their female students' academic achievement was found 0.859. This was significant at 0.05 level. Correlation between English female teachers' self-efficacy and their female students' academic achievement was found higher as compared to correlation found between male English teachers'

self-efficacy and their male students' academic achievement in the subject of English.

4. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

In Table No.50, Relationship between Math rural teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found 0.923. This was significant at 0.05 level. Relationship between Math urban teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found 0.892. This was significant at 0.05 level. Correlation between Math rural teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found higher as compared to relationship between Math urban teachers' self-efficacy and their students' academic achievement in the subject of Mathematics.

5. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

In Table No.51, Relationship between English rural teachers' self-efficacy and their students' academic achievement in the subject of English was found 0.858. This was significant at 0.05 level. Relationship between English urban teachers' self-efficacy and their students' academic achievement in the subject of English was found 0.945. This was significant at 0.05 level. Correlation between English urban teachers' self-efficacy and their students' academic achievement was found higher as compared to relationship fond between English rural teachers' self-efficacy and their students' academic achievement in the subject of English.

DISTRICT LAKKI

1. Relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics and English

   In Table No.52, Relationship between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics was found 0.562.This was significant at 0.05 level. Relationship between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English was found 0.358. This was non-significant at 0.05 level.

2. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

   In Table No.53, Relationship between Math male teachers' self-efficacy and their male students' academic achievement in the subject of Mathematics was found 0.616. This was non- significant at 0.05 level. Relationship between Math female teachers' self-efficacy their students' academic achievement was found 0.574. This was non-significant at 0.05 level.

3. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

   In Table No.54, Relationship between male English teachers' self-efficacy and their male students' academic achievement in the subject of English was found 0.378. This was non-significant at 0.05 level. Relationship between English female teachers' self-efficacy and their female students' academic achievement in the subject of English was found 0.256. This was non-significant at 0.05 level.

4. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

In Table No.55, Relationship between Math rural teachers' self-efficacy and rural students' academic achievement in the subject of Mathematics was found 0.362. This was non-significant at 0.05 level. Relationship between Math urban teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found 0.866. This was significant at 0.05 level.

5. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

In Table No.56, Relationship between English rural teachers' self-efficacy and their students' academic achievement in the subject of English was found 0.300. This was non-significant at 0.05 level. Relationship between English urban teachers' self-efficacy and their students' academic achievement in the subject of English was found 0.327. This was non-significant at 0.05 level.

DITRICT KARAK

1. Relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics and English.

In Table No.57, Relationship between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics was found 0.911. This was significant at 0.05 level. Relationship between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English was found 0.925. This was significant at 0.05 level.

2. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

In Table No.58, Relationship between Math male teachers' self-efficacy and their male students' academic achievement in the subject of Mathematics was found 0.995. This was significant at 0.05 level. Relationship between Math female teachers' self-efficacy and their female students' academic achievement in the subject of Mathematics was found 0.981. This was significant at 0.05 level. Correlation between Math male teachers' self-efficacy and their male students' academic achievement was observed slightly higher as compared to relationship found between Math female teachers' self-efficacy and their female students' academic achievement in the subject of Mathematics.

3. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

In Table No.59, Relationship between English male teachers' self-efficacy and their male students' academic achievement in the subject of English was found 0.958. This was significant at 0.05 level. Relationship between English female teachers' self-efficacy and their female students' academic achievement in the subject of English was found 0.897. This was significant at 0.05 level. Correlation between English male teachers' self-efficacy and their male students' academic achievement was found higher as compared to correlation occurred between female teachers' self-efficacy and female students' academic achievement in the subject of English.

4. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

In Table No.60 Relationship between Math rural teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found

0.977. This was significant at 0.05 level. Relationship between Math urban teachers' self-efficacy and students' academic achievement in the subject of Mathematics was found 0.979. This was significant at 0.05 level. Correlation between Math urban teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was observed higher as compared correlation occurred between Math rural teachers' self-efficacy and their students' academic achievement in the subject of Mathematics.

5. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

In Table No.61, Relationship between English rural teachers' self-efficacy and their students' academic achievement in the subject of English was found 0.948. This was significant at 0.05 level. Relationship between English urban teachers' self-efficacy and their students' academic achievement was found 0.924. This was significant at 0.05 level. Correlation between English rural teachers' self-efficacy and their students' academic achievement was observed higher as compared to correlation occurred between English urban teachers' self-efficacy and students' academic achievement in the subject of English.

DISTRICT BANNU

1. Relationship between teachers' self-efficacy and students' academic achievement in the subject of English and Mathematics.

2. In Table No.62, Relationship between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics was found 0.580. This was significant at 0.05 level. Relationship between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English was found 0.812. This was

significant at 0.05 level. Relationship between English teachers' self-efficacy and their students' academic achievement in the subject of English was found higher as compared to relationship found between Math teachers' self-efficacy and their students' academic achievement in the subject of Mathematics.

3. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

   In Table No.63, Relationship between Math male teachers' self-efficacy and their male students' academic achievement in the subject of Mathematics was found 0.419. This was non-significant at 0.05 level. Relationship between Math female teachers' self-efficacy and their female students' academic achievement in the subject of Mathematics was found 0.495. This was non-significant at 0.05 level.

4. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

   In Table No.64, Relationship between male English teachers' self-efficacy and their male students' academic achievement was found 0.645.This was non-significant at 0.05 level. Relationship between English female teachers' self-efficacy and their female students' academic achievement in the subject of English was found 0.934. This was significant at 0.05 level.

5. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

   In Table No.65, Relationship between Math rural teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found 0.814. This was significant at 0.05 level. Relationship between Math urban

teachers' self-efficacy and their students' academic achievement was found 0.590. This was non-significant at 0.05 level.

6. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

In Table No.66, Relationship between English rural teachers' self-efficacy and their students' academic achievement in the subject of English was found 0.746. This was significant 0.05 level. Relationship between English urban teachers' self-efficacy and their students' academic achievement in the subject of English was found 0.925. This was significant at 0.05 level. Correlation between English urban teachers' self-efficacy and their students' academic achievement in the subject of English was observed higher as compared to correlation occurred between rural English teachers' self-efficacy and their students' academic achievement in the subject of English.

DISTRICT SIBI

1. Relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics and English

In Table No.67, Relationship between math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics was found 0.593. This was significant at 0.05 level. Relationship between English teachers' (male + female) self-efficacy and their students' academic achievement in the subject of English was found 0.680. This was significant at 0.05 level. Correlation between English teachers' self-efficacy and their students' academic achievement in the subject of English was observed higher as compared to correlation occurred between Math teachers'

self-efficacy and their students' academic achievement in the subject of Mathematics.

2. Gender wise relationship between teachers' self-efficacy and their students' academic achievement in the subject of Mathematics

In Table No.68, Relationship between Math male teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found 0.543. This was non-significant at 0.05 level. Relationship between Math female teachers' self-efficacy and their female students' academic achievement in the subject of Mathematics was found 0.635. This was non-significant 0.05 level.

3. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

In Table eNo.69, Relationship between English male teachers' self-efficacy and their male students' academic achievement in the subject of English was found 0.500. This was non-significant at 0.05 level. Relationship between English female teachers' self-efficacy and their female students' academic achievement in the subject was found 0.851. This was significant at 0.05 level.

4. Location wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

In Table No.70, Relationship between Math rural teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found 0.683. This was non-significant at 0.05 level. Relationship between Math urban teachers' self-efficacy and their students' academic achievement in the subject of Mathematics was found 0.521. This was non-significant at 0.05 level.

5. Location wise relationship between teachers' self-efficacy and academic achievement in the subject of English

In Table No.71, Relationship between English rural teachers' self-efficacy and their students' academic achievement in the subject of English was found 0.469. This was non-significant at 0.05 level. Relationship between English urban teachers' self-efficacy and their students' academic achievement was found 0.895. This was significant at 0.05 level. Relationship between English urban teachers' self-efficacy and their students' academic achievement was found higher as compared to correlation found between rural English teachers' self-efficacy and their students' academic achievement in the subject of English.

DISTRICT QUETTA

1. Relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics and English

In Table No.72, Relationship between Math teachers' (male + female) self-efficacy and their students' academic achievement in the subject of Mathematics found 0.754. This was significant at 0.05 level. Relationship between English teachers' (male + female) self-efficacy and their students' found 0.859. This was significant at 0.05 level.

2. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics

In Table No.73, Relationship between Math male teachers' self-efficacy and their male students' academic achievement in the subject of Mathematics was found 0.954. This was significant at 0.05 level. Relationship between Math female teachers' self-efficacy and their students' academic achievement in the

subject of Mathematics was found 0.897. This was significant at 0.05 level. Correlation between Math male teachers' self-efficacy and their male students' academic achievement in the subject Mathematics observed higher as compared to correlation occurred between Math female teachers' self-efficacy and their female students' academic achievement in the subject of Mathematics.

3. Gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of English

In Table No.74, Relationship between English male teachers' self-efficacy and their male students' academic achievement in the subject of English was found 0.773. This was significant at 0.05level. Relationship between English female teachers' self-efficacy and their female students' academic in the subject of English was found 0.859. This was significant at 0.05 level. Correlation between English female teachers' self-efficacy and their female students' academic achievement was observed higher as compared to correlation occurred between English male teachers' self-efficacy and their male students' academic achievement in the subject of English.

Applied significance of the research

Grounded on the findings and conclusions of the present study, in the context of Pakistan following considerations may be helpful:

- **Implications for the teacher course developers**

Findings and conclusions of the study may provide helpful guidelines to lay grounds for designing and development of the teacher training curriculum. The study may provide an insight to teacher course developers to understand the effectiveness of Teacher Sense of Self-Efficacy for the teaching learning process and inculcate

ingredients (sources of teacher self-efficacy) in the teacher training curriculum. It may strengthen Teacher Sense of Self-Efficacy.

- **Implications for teacher training personnel**

Teacher training personnel may incorporate effective teaching strategies to build up teacher sense of self-efficacy that heighten their beliefs upon their teaching capabilities. It may provide a strong source to teach even in difficult teaching situations.

- **Implications for working teachers**

Working teachers may avail guidance from the finding of the present study regarding the effectiveness of beliefs about teaching capabilities to promote desired learning outcomes. It is likely to increase their teaching efficacy beliefs.

- **Implications for other researchers**

Data generated in the present study may be quoted by other researchers doing research work in the field of teacher self-efficacy. The study may also likely to inspire future researchers to undertake research on teacher self-efficacy and other related aspect from different angles not covered in the present study.

5.3 CONCLUSIONS

1. Relationship between teachers' self-efficacy and students' academic achievement was found significant in the subject of Mathematics and English in all the target areas of Pakistan. However, teacher's self-efficacy proved highly context specific.

2. Relationship between teachers' self-efficacy and students' academic achievement in the subject of English was higher than relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics.

3. In gender wise relationship between teachers' self-efficacy and students' academic achievement in the subject of Mathematics males indicated higher relationship than females.

4. In the subject of English relationship between teachers' self-efficacy and students' academic achievement females indicated higher relationship than males.

5. In rural areas relationship between teachers' self-efficacy and students' academic achievement was found to be higher than relationship found between teachers' self-efficacy and students' academic achievement in urban areas in the subject of Mathematics.

6. In urban areas correlation in the subject of English was higher than correlation between teachers' self-efficacy and students' academic achievement in the subject of English in rural areas.

5.4 RECOMMENDATIONS

In the light of findings and conclusions of the present study the following recommendation were made:

1 In-service teachers training may be provided at secondary school level to improve teachers' self-efficacy after every three years. New advancement in the curriculum may be instilled in training program. Teachers' may be provided opportunity to make perfection upon new advancement or amendments made in the curriculum that may provide vital source to enhance

teacher self-efficacy. Focus on command over core subject area along with teaching strategies may heighten teacher self-efficacy essential for accepting teaching challenges.

2 Deficiencies in content area of a particular subject of a teacher may be managed to address along with teaching strategies at school level in the supervision of head of the institution exploiting school faculty members' expertise. It may provide an expedient source to solve difficulties arising in the continuity of the flow of teaching that promotes meaningful learning.

3 Refresher courses may be offered in the summer vacation. Refresher courses may be linked with evaluation process to reflect level of teacher gain from the refresher course. Teachers' progress may be linked with measurement of improvement against the indicators of the objectives of the course. Course objectives may focus to enhance concept perfection and skills of framing conceptual questions that may stimulate students' thinking skills.

4 Observational learning or modeling may be projected to improve teachers' self-efficacy. A particular concept or a specific skill of content may be modeled to transmit knowledge using particular strategy. Modeling resource person may reflect motivational strategies that promote observers' motivation to more closely identify model's exposure of skills. It may develop observers' (course participants' teachers) self-efficacy.

5 Successful performance of teachers may be acknowledged publicly. Appreciating words positively impact teachers' self-efficacy. Education department may initiate scheme to appreciate successful performance of a teacher. Successful teacher may be rewarded in the form of monetary package or awarded commendation certificate. Appreciation of teachers' typical

performance (students' academic achievement in the examination) may promote competition culture for meaningful learning.

6 Knowledge sharing tradition may be established at school level. Professional development may be enhanced by sharing faculty members' knowledge and expertise conducting discussions scheduled one day every week. Challenges arising in content delivery may be discussed and facilitated with curative supplement. In this way teacher self-efficacy to deliver content effectively may be enhanced.

7 Low self-efficacy for teaching mathematics may be strengthened with the provision of content mastery to low efficacious Math teachers. High efficacious math teachers' content command of mathematics and teaching skills may be utilized for delivering model lectures. Exposure of expertise in mathematics teaching strategies may instill the inactive skills of math low efficacious teachers. Resource person for demonstration of mathematics model lessons may reflect skillful concept clarification that disseminated completely by the beneficiaries.

8 Since English language teaching reflected as female domain therefore female English teachers' expertise for teaching English language may be shared to strengthen male English teachers' self-efficacy. The exposure of their English teaching strategies may positively impact less efficacious English teachers' efficacy beliefs.

9 Expertise of English teachers may be used in providing modern techniques facilities for listening and reading practices. English literature reading material and related English language journals, magazines, and papers may be provided

to increase skills and update teachers' knowledge in English language. It may help English teachers to acquire expertise in English language.

10 Seminars may be arranged at high school level to promote English language teaching skills. Highly efficacious English teachers may be given opportunities to expose their experience and skills of English language teaching. English teachers' may be appreciated to promote their literary work in the schools organization. This may stimulate English teachers' creative thinking skills.

11 Social incentives (in the form of praise in public) may be awarded to high self-efficacious teachers. It will provide a source of satisfaction to maintain their efficacy beliefs and desired level of performance. Formal gathering of local public, parents and social luminaries may be arranged at the end of academic session to publicize teachers' achievement. It may be helpful to promote teachers' image in the society.

12 Highly efficacious teachers' teaching routines may be observed to identify their teaching skills and to record how they spend their teaching time and consume energies to achieve academic targets. Skills of assessment strategies of students' understanding of particular concept within the running lesson delivery, confusing students' concept clarification, keeping balanced pace of learning for all students and maintaining content delivery to the proper level for individual students may be recorded. The collection of these strategies may prove helpful source for promoting teacher efficacy for meaningful teaching and learning.

13 New advancement or amendments made in curriculum and their implementation strategies in the teaching learning process may be discussed

sharing highly efficacious teachers' expertise in the relevant subject. It will provide an opportunity to build teachers' self-efficacy in the relevant subject.

14 Research studies may be designed and conducted to assess relationship between teachers' self-efficacy and students' academic achievement by some institutions such as Directorate of Staff Development (D. S. D) Lahore working for teacher training projects with reference to other school subjects also.

REFERENCES

Allinder, R. M. (1994). The relationship between efficacy and the instructional practices of special education teachers and consultants. *Teacher Education and Special Education, 17, 86-95.*

Anderson, R., Greene, M. and Loewen, P. (1988). Relationships among teachers' and students' thinking skills, sense of efficacy, and student achievement. *Alberta Journal of Educational Research, 34(2), 148-165.*

Armor, D., Conroy–Oseguera, P. Cox, M., King, N., McDonnel, L. and Pascal, A., (1976). Analysis of the school preferred reading programs in selected Los Angeles minority schools. *The Rand Corporation.*

Ashton, P. T. and Webb, R. B. (1982). Teacher's sense of efficacy: Toward an ecological model. *American Educational Research Association.* New York.

Austin, G. R. and Holowenzak, S. P. (1985). An examination of 10 years research on exemplary schools. *Research on exemplary schools. 65-82*

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englwood clips, NJ: Prentice-Hall.

Bandura, A. (1995). *Exercise of personal and collective efficacy in changing societies*, 1-45. New York: Cambridge University Press.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: Freeman.

Bandura, A. (2002). Social cognitive theory in cultural context. *Journal of Applied Psychology: An International Review, 51, 269-290.*

Bates, A. B., Latham, N., and Kim, J. (2011). Linking preservice teachers' mathematics self-efficacy and mathematics teaching efficacy to their mathematical performance. *School Science and Mathematics, 111(7), 325-333.*

Blasé, J., and Blasé, J. (2000). Effective instructional leadership: Teachers' perspective on how principals promote teaching and learning in school. *Journal of Educational Administration, 38(2), 130-141.*

Borton , W. (1991). Empowering teachers and students in a restructuring school: A teacher efficacy interaction model and the effect on reading outcomes. *American Educational Research Association , Chicago.*

Brantlinger , E . A . (1993). *The politics of social class in secondary school: Views of affluent and impoverished youth.* New York: Teachers College Press.

Brownel, M. T. and Pajares, F. (1999). Teacher efficacy and perceived success in mainstreaming students with learning and behaviour problems. *Teacher Education and Special Education, 22, 154-164.*

Bryk, A. S., and Driscoll, M. E. (1998). *The high school as community: Contextual influences and consequences for students and teachers.* Madison, WI: University of Wisconsin-Madison, National Center on Effective Secondary Schools.

Bryk, A. S., Lee, V. E., and Holland, P. B. (1993). *Catholic schools and the common good.* Cambridge, MA: Harvard University Press.

Calik, T., Sezgin, F., Kavgaci, H., and Kilinc, A. C. (2012). Examination of relationships between instructional leadership of school principals and self-efficacy of teachers and collective teachers' efficacy. *Educational Science: Theory and Practice, 12(4), 2498-2504.*

Campbell, J. (1996). A comparison of teacher efficacy for pre and in-service teachers in Scotland and America, Education, 117, 2-11.

Caprara, G. V., Barbaranelli, C., Borgogni, L. and Steca, P. (2003). Efficacy beliefs as determinants of teachers' job satisfaction. *Journal of Educational Psychology, 95, 821-832.*

Chambers, S. M. and Hardy, J. C. (2005). Length of time in student teaching: Effects on classroom control orientation and self-efficacy beliefs. *Educational Research Quarterly, 28(3), 3-9.*

Chester, M. and Beaudin, B. Q. (1996) Efficacy beliefs of newly hired teachers in urban schools. *American Educational Research Journal, 32, 233-257.*

Coladarci, T. (1992). Teachers' sense of efficacy and commitment to teaching. *Journal of Experimental Education, 60(4), PP. 323-337.*

Coleman, J. Campbell, J., Wood, A. Weinfeld, F. and York, R. (1966). *Equality of education an opportunity.* Washington, DC:U.S. Department of health, Education, and Welfare, Office of Education.

Curral, S. C. Towler, A. J. Judge, T. and Kohn, L. (2005). Pay satisfaction and organizational outcomes. *Personnel Psychology, 58, 613-640.*

Darling–Hammond, L. Ancess, J. and Falk, B. (1995). *Authentic assessment in action: Studies of schools and students at work.* New York: Teachers College Press.

Day, C. (2002). School reform and transitions in teachers' professionalism and identity, *International Journal of Educational / Research, 37, 677-692.*

Donmoyer, E . R. and Kos, R . (1993). *At risk students: Insights from /about research.* In E . R . Donmoyer and R. Kos (Eds.), At-risk students: Portraits, policies, programs, and practices (pp. 265_290). Albany, NY: State University of New York Press.

Eccles, J. S. and Midgley, C. (1989). *Stage-environment fit: Developmentally appropriate classrooms for young adolescents.* In C. Ames and R. Ames (Eds.), Research on motivation in education (vol.3, pp. 139-186) San Diego: Academic Press.

Eisenberg, N. Martin, C. L. and Fabes, R. A. (1996). *Gender development and gender effects.* In D.C. Berliner and R.C. Colfee (Eds.), Handbook of educational Psychology 358-396. New York : Macmillan.

Fullan , M . (1997). *Broadening the concept of teacher s leadership.* In S. Caldwell (Ed.), Provisional Development in learning-centered schools 34-48. Oxford, OH: National Staff Development Council.

Fullan, M. G. (1988). *Change process in secondary schools: Toward a more fundamental agenda* 88-111. Standford, CA: Standford University, Center for Research on the Context of Secondary Teaching.

Gay, L.R. (2000). Educational Research: *Competencies for Analysis and Application.* New York: Merill Publishing Co.

Gibson, S. and Dembo, M. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology 76(4), 569-582.*

Gill, S. and Reynolds, A. (1999). Educational Expectations and school achievement of urban African – American children. *Journal of school Psychology, 37, 403 – 424.*

Gist, M. E. and Mitchell, T. R. (1992). self-Efficacy: A Theoretical Analysis of IT Departments and Malleability. *Academy of Management Review*, 17, (2), 183-211.

Goddard, R. and Goddard, Y. (2001). A multilevel analysis of the relationship between teacher and collective efficacy in urban schools. *Teaching and Teacher Education, 17, 213- 237.*

Goodlad , J. I. (1997). *In praise of education.* New York: Teachers College Press.

Gorrell, J ., Hazareesing , N. A., Carlson, H.L., and Stenmalm-Sjoblom, L.S. (1993). A comparison of efficacy beliefs among pre-service teachers in the United States, Sweden and Sri Lanka. American Psychological Association, Toronto, Canada.

Gorrell, J., and Hwang, Y. S. (1995). A study of self-efficacy beliefs among preservice teachers in Korea. *Journal of Reaearch and Development in Education, 28, 101-105.*

Grant, G. (1988). *The world we created at Hamilton High.* Cambridge, M A: Harvard University Press.

Gresham, G. (2009). An examination of mathematics teacher efficacy and mathematics anxiety in elementary pre-service teachers. *Jounal of Classroom Interaction, 44(2), 22-38.*

Guskey, T.R. (1988). Teacher efficacy, self-concept, and attitudes toward the implementation of instructional motivation. *Teaching and Teacher Education, 4, 63-69.*

Hackett, G. (1985). The role of mathematics self-efficacy in the choice of math-related majors of college women and men. A path analysis. *Journal of Counseling Psychology, 32, 47-56.*

Hansford, B. C., and Hattie, J. A. (1982). The relationship between self and achievement /performance measures. *Review of Educational Research, 52,123_142.*

Harter, S. (1990). *Issues in the assessment of self-concept of children and adolescents.* In A. La Greca (Ed.), Through the eyes of child. 292-325. Boston: Allyn and Bacon.

Harter, S., Waters, P. and White Sell, N. (1997). Lack of voice as a manifestation of false self- behavior among adolescents: The school setting as a stage upon which the drama of authenticity is enacted. *Educational Psychologist, 32, 153-173*

Helsby, G. (1995). Teachers' construction of professionalism in England in the 1990 *Journal of Educational for Teaching, 21(3), 317-332.*

Henson, R. (2001). The effects of participation in teacher on teacher efficacy, *Teaching and Teacher Education, 17, 819-836.*

Hoover-Dempsey, K. V., Bassler, O. C. (1987). Parent involvement: Contributions of teacher efficacy, school socioeconomic status, and other school characteristics. *American Educational Research Journal, 24, 417-435.*

Housego, B. (1990). A comparative study of teachers' feelings of preparedness to teach. *Alberta Journal of Education Research, 36, 223-240.*

Hoy, A. W. (2000). Changes in teacher efficacy during the early years of teaching. *American Educational Research Association*, New Orleans, L. A.

Hoy, W. and Woolfolk, A. (1990). Socialization of student teachers. *American Educational Research Journal, 27, 279-300.*

Hoy, W. K. and Woolfolk, A. E. (1993). Teachers' sense of efficacy and organizational health of schools. *The Elementary School Journal, 93, 356-372.*

Huberman, M . (1993). *The model of the independent artisan in teachers' professional relations.* In J.W . Little and M . W. McLaughlin (Eds.), Teachers' work: Individuals, colleagues and contexts 11-50 . New York: Teachers College Press.

Jeffrey, B. and Woods, P. (1996). Feeling deprofessionalized: the social construction of emotion during an OFSTED inspection, *Cambridge Journal of Education, 26(3), 322-343.*

Kelchtermans, G. (1996). Teaching vulnerability: understanding its moral and political roots, Cambridge *Journal of Education, 26(3), 307-323.*

Kruse, S. D., Louis, K. S. and Bryk, A.S. (1995). *An emerging frame work for analyzing school-based professional community.* In K. S. Louis and S. D. Kruse (Eds.), Professionalism and community: Perspectives on reforming urban schools. Thousand Oaks, CA: Corwin. Teachers Promote Students' Social Engagement (pp. 23-44)

Larson,R.L.(1992). *Changing from inside out.* Lancaster, PA: Technomic.

Lasky, S. (2005). A Socio-cultural to understanding teacher identity, agency and professional vulnerability in a context of secondary school reform. *Teachers and Teacher Education 21: (8), pp.899_916.*

Lee, V., Dedrick, R. and Smith, J. (1991). The effect of social organization of school on teacher efficacy and satisfaction. *Sociology of Education. 64, 190-208.*

Lee,V.E., Smith, J.B., & Croninger,R.G.(1995). *Another look at high school restructuring. More evidence that it improves student achievement and more insight into why.* Madison, WI: Center On Organization and Restructuring of schools.

Little, J. W. (1990). *Conditions of professional development in secondary schools.* In M.W.McLaughlin,J.E.Talbert and N.Bascia (Eds.),The contexts of teaching in secondary schools:Teachers' realities187-223.New York: Teachers College Press.

Louis, K. S., & Miles, M. B. (1990). *Impoving the urban high school: What works and why.* New York: Teachers College Press.

Machure, M. (1993). Arguing for yourself: Identity as an organizing principle in teachers' jobs and lives, *British Educational Research Journal, 19(4), 311-322.*

Marsh, H. W. (1990). Influences of internal and external frames of refrence on the formation of math and English self-concepts. *Journal of Educational Psychology, 82,107_116.*

Martin, A. T. (2006). The relationship between teachers' perceptions of student motivation and engagement and teachers' enjoyment of and confidence in teaching, *Asia-Pacific Journal of Teacher Education, 34(1), 73-93.*

McLaughlin, M. W. (1994). *Somebody knows my name.* In Issues in restructuring schools. (Issue Report No.7, 9-12). Madison,WI: University of Wisconsin_Madison, School of Education, Center On Organization and Restructuring of Schools. (ERIC Document Reproduction Service No. ED 376565).

McNeil, M. (1986). *Contradictions of control: School structure and school knowledge.* New York: Routledge.

McQuillan, P. J. (1998). *Educational Opportunity in an urban, American high school.* Albany, NY: State University of New York Press.

Metz, M. H. (1990a). *How social class differences teachers' work.* In M. W. McLaughlin, J. E. Talbert, and N. Basica (Eds.), The contexts of teaching in secondary schools: Teachers' realities 40_107. New York: Teachers' College Press.

Metz, M. H. (1993). *Teachers' ultimate dependence on their students.* In J. W. Little and M.W. McLaughlin (Eds.), Teacher's work: Individuals, colleagues and context 104-136. New York: Teachers College Press.

Midgley, C., Feldlaufer, H. and Eccles, J. (1989). Change in teacher efficacy and student self-and task-related beliefs in mathematics during transition to junior high school. *Journal of Educational Psychology, 81, 247-258.*

Miron, L. F. (1996). *The social construction of urban schooling: Situating the crisis.* Cresskill, NJ: Hamption.

Mone, M., Baker, D. and Jeffries, F. (1995). Predictive validity and time dependency of self-efficacy, self-esteem, personal goals and academic performance. *Educational and Psychological Measurement, 55, 716-722.*

Mulholland, J. and Wallace, J. (2001). Teacher induction and elementary science teaching: enhancing self-efficacy. *Teaching and Teacher Education, 17, 243-261.*

Multon, K. D., Brown, S. D. and Lent, R. W. (1991). Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. *Journal of Counseling Psychology, 38(d1): 30-38.*

Murphy, J. (1992). School effectiveness and school restructuring: Contributions to educational improvement. *School Effectiveness and School Improvements, 3(2), 90-109.*

Murphy, J., Weil, Hallinger, P. and Mitman, A. (1982, December). Academic Press: Translating high expectations in to school policies and classroom practices. *Educational Leadership, 40(3), 22_26.*

National Association of Secondary School Principals. (1996). *Breaking ranks: Changing an American institution.* Reston, VA: Author.

Natriello, G., Mc Dill, E-L., & Pallas, A. M. (1990). *Schooling disadvantaged children: Racing against catastrophe.* New York: Teachers College Press.

Newmann, F. M. , Wehlage, G. G. and Lamborn, S. D. (1992). *The significance and sources of student engagement.* In F. M. Newmann (Ed.), Student engagement and achievement in American secondary schools. (11–39). New York: Teachers College Press.

Newmann, F. M. (1985). Educational reform and social studies: Implications of six reports. Boulder, CO: *Social Science Education Consortium.*

Newmann, F. M. (1991). Classroom thoughtfulness and students' higher order thinking: Common indicators and diverse social studies courses. Madison, WI: University of Wisconsin , *National Center on Effective Secondary Schools.*

Newmann, F. M. (1992b). *Higher–order thinking and prospects for classroom thoughtfulness.* In F. M. Newmann (Ed.) Student engagement and achievement in American secondary s chools (62 – 91). New York: Teachers College Press.

Newmann, F. M. (1997). *How secondary schools contribute to academic success.* In K. Borman and B. Schneider (Eds.), Youth experiences and development: Social influence and educational challenges. Berkeley, CA: Mc Cutchan.

Newmann, F. M. and Wehlage, G. G. (1995). *Successful school restructuring: A report to the public and educators.*Madison, WI: University of Wisconsin-Madison, Center on Organization and Restructuring of Schools.

Newmann, F. M., Rutter, R. A. and Smith, M.S. (1989). Organizational factors that affect school sense of efficacy, and expectations. *Sociology of Education, 62, 221-238.*

Nystrand, M. (with Gamoran, A., Kachur, R. and Prendergast, C.) (1997). *Opening dialogue: Understanding the dynamics of language in the English classroom.* New York: Teachers College Press.

O' Keefe, V. (1995). *Speaking to think thinking to speak: The importance of talk in the learning process.* Portsmith, NH: Boynton/Cook.

Oakes, J., & Lipton, M. (1996). *Developing alternatives to tracking and grading.* In L.I. Rendon. R. O. Hope, and Associates (Eds.), Educating a new majority: Transforming America's educational system for diversity (168-200). San Francisco: Jossey – Bass.

Ogden, E. H. and Germinario, V. (1995). *The nation's best schools: Blueprints for excellence.* Lancaster, PA : Technomic.

Page, R. N. (1991). *Lower track classrooms: A curricular and cultural perspective.* N. York: Teachers College Press.

Pajares, F. (1996). Self-efficacy beliefs in academic sittings. *Review of Educational Research, 66, 543-571.*

Pajares, F. (1997). *Current directions in self-efficacy research.* In Maher & P. R. Pint rich (Vol Eds.), Advances in motivation and achievement Vol. 10. 1-49. Greenwich, CT: JAI Press.

Pajares, F. and Miller, M.D. (1994). The role of self-efficacy and self-concept beliefs in mathematical problem-solving: *Journal of Educational Psychology, 86, 193-203.*

Pajares, F. and Valiante, G. (1999). Grade level and gender differences in the writing self-beliefs of middle school students. *Contemporary Educational Psychology, 24, 390-405.*

Pajares, F., Miller, M. D. and Johnson, M. J. (1999). Gender differences in writing self-beliefs of elementary school students. *Journal of Educational, 91, 50-61.*

Palmer, D. (2006). Durability of changes in self-efficacy of pre-service teachers, *International Journal of science Education, 28(6), 655-671.*

Paris, S. G., & Cunningham, A. E. (1996). *Children becoming students.* In D. Berliner & R. Calfee, (Eds.), Handbook of Educational Psychology (117–146. New York: Macmillan.

Parkay, F.W., Green wood, G., Olejnik, S. and Proller, N. (1988). A study of the relationship among teacher efficacy, locus of control, and stress. *Journal of Research and Development in Education, 21, 13-22.*

Perkins, D. (1998). *What is understanding ?* In M. S. Wiske (Ed.), Teaching for understanding: Linking research with practice 39-57. San Francisco: Jossey-Bass.

Perrone. V. & Associates (1985). *Portraits of high schools: A supplement to high school: A report on secondary education in America.* Princeton, NJ: Princeton University Press.

Phelan, P., Davidson, A. L. and Yu, II. (1998). *Adolescents' worlds: Negotiating family, press and school.* New York: Teachers College Press.

Pintrich, P. R. and Schunk, D.H. (2002). *Motivation in education theory, research and application (2nd ed.)* Upper Saddle River, N.J: Merrill/Prentice Hall.

Podell, D. and Soodak, L. (1993). Teacher efficacy and bias in special education referrals. *Journal of Educational Research, 86, 247-253.*

Raudenbush, S.W., Rowan, B. and Cheong, Y.F. (1992). Contextual effects on the self-perceived efficacy of high school teachers. *Sociology of Education, 65, 150-167.*

Riggs, I. and Enrochs, L. (1990). Toward the development of an elementary teacher's science teaching efficacy beliefs instrument. *Science Education, 74, 625-638.*

Romo, H. D. and Falbo, T. (1996). *Latin high school graduation: Defying the odds.* Austin, TX: University of Texas Press.

Ross, J.A. Cousins, J.B. and Gaddala, T. (1996). within-teacher predictors of teacher efficacy. *Teacher and Teacher Education, 12, 385-400.*

Ross, L. A. (1994). The impact of an in-service to promote cooperative learning on the stability of teacher efficacy. *Teacher and Teaching Education, 10, 381-394.*

Roueche, J. E. and Baker, G. A., III, With Mullin, P.L. and Boy, N.H.O. (1986). *Profiling excellence in America's schools.* Arlington, VA: American Association of School.

Rutter, M., Maughan, B., Mortimore, P., Quston, J. and Smith. A. (1979). *Fifteen thousand hours: Secondary schools and their effects on children.* Cambridge, MA: Harvard University Press.

Ryan, R. M. and Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55, 68-78.*

Saklofske, D. H., Michayluk, J.O. and Randhawa, B.S. (1988). Teachers' efficacy and teaching behaviours. *Psychological Reports. 63, 407-414.*

Schunk, D. H. and Lilly, M. (1984). Sex differences in self-efficacy and attributions : Influence of performance feedback. *Journal of Early Adolescence, 4, 203-213.*

Scriber, J. P. (1999). Teacher efficacy and teacher professional learning: Implications for school leaders. *Journal of School Leadership, 9, 209-234.*

Sedlak, M. W., Wheeler, C. W., Pullin, D. C., & Cusick, P. A. (1986). *Selling students short: Classroom bargains and academic reform in the American high school.* New York: Teachers College Press.

Shaughnessy, M. F. (2004). An interview with Anita Woolfolk: The educational Psychology of teacher efficacy. *Educational Psychology Review, 16(2), 153-176.*

Smith, R. and Knight, S. (1997). *Collaborative inquiry: Teacher leadership in the practice of creative intelligence.* In R. Sinclair, & W. Ghory (Eds.), Reaching and teaching all children. 39-60. New York: Crown Press.

Smylie, M. A. (1988). The enhancement function of staff Development: Organizational and psychological antecedents to individual teacher change. *American Educational Research Journal, 25, 1-30.*

Sodak, L., and Podell, D. (1993). Teacher efficacy and student problem as factors in special education referral. *Journal of Special Education, 66-81.*

Soodak, L., Podell, D. and Lehman, L.R. (1998). Teacher, student, and school attributes as predictors of teachers' dent, and school attributes as predictors of teachers' responses to inclusion. *Journal Special Education. 31, 480-497.*

Stein, M. and Wang, M. (1988). Teacher development and school improvemen: The process of teacher change. *Teaching and Teacher Education, 4, 171-187.*

Steinberg, L., (with Brown, B. B. and Dornbusch, S. M.). (1996). *Beyond the classroom: Why school reform has failed and what parents need to do.* New York: Teachers College Press.

Stipek, D. J. 1993. *Motivation to learn.* Allyn and Bacon, Baston.

Talbert, J. E. (1995). In L.S. Siskin & *Boundaries of teachers' professional communities in U.S. high schools: Power and precariousness of the subject department* J.W. Little (Eds.), The subjects in question: Departmental organization and the high school (pp. 68-94). New York: Teachers College Press.

Taylor, R. D. (1994). *Risk and resilience: Contextual influences on the development of African-American adolescents.* In M. C. Wang & E. W. Gordon (Eds.),

Educational resilience in inner-city America_challenges and prospects 119 – 130. Hillsdale, NJ: Lawrence Erlbaum.

Trentham, L., Silvern, S. and Brogdon, R. (1985). Teacher efficacy and teacher competency ratings. *Psychology in the Schools, 22(3), 343 -352.*

Tschannen- Moran, M. and Woolfolk Hoy, A. (2001). Teacher efficacy: capturing an elusive construct, *Teaching and Teacher Education, 17, 783-805.*

Tschannen– Moran, M., Hoy, .W. and Hoy, W.K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research, 68, 202-248.*

Tylor – Dunlop, K. and Norton, M. (1995). *Suffer the children... and they do* (Technical Report). (ERIC Document Reproduction service No. ED 402524)

Wehlage, G. G., Rutter, R. A., Smith, G. A., Lesko, N. and Fernadez, R. R. (1989). *Reducing the risk: Schools as communities of support.* New York: Falmer.

Wigfield, A., Eccles, J., Mac Iver, D., Reuman, D. and Midgley, C. (1991). Transitions at early adolescence: Changes in children's domain-specific self-perceptions and general self-esteem across the transitions to junior high school. Developmental Psychology, 27, 552-565.

Wigfield, Eccles, J. S. and Pintrich, P.R. (1996). *Development between the ages of 11 and 25.* In D.C. Berliner and R.C. Calfee (Eds.), Handbook of educational psychology (pp. 148-185). New York : Macmillan.

Wilson, B. L., & Corcoron, T. B. (1988). *Successful secondary schools: Visions of excellence in American public education.* New York: Falmer.

Wilson, K. G., & Daviss, B. (1994). *Redesigning education.* New York: Henry Holt.

Wolters, C. A., and Daugherty, S. G. (2007). Goal structures and teachers' sense of efficacy: Their relation and association to teaching experience and academic level. *Journal of Educational Psychology, 99, 181-193.*

Woolfolk Hoy, A. (2000). *Changes in teacher efficacy during the early years of teaching*. Paper presented at American Educational Research Association, New Orleans, LA.

Woolfolk, A. E. and Hoy, W. K. (1990). Prospective teachers' sense of efficacy and beliefs about control. *Journal of Educational Psychology, 82, 81-90.*

Woolfolk, A.E. (1998). *Educational Psychology (7th ed.).* Englewood Cliffs, N.J Prentice Hall.

Yost, R. (2002). "I think I can": Mentoring as a means of enhancing teacher efficacy. *The Cleaning House, 75(4), 195-197.*

Appendix -I

Teachers' Sense of Efficacy Scale (Long Form)

Teacher Beliefs

Name: _____

Qualification: _____

Teaching experience_____

Name of school: _____

Sino.	Statement	Nothing	Very little	Some influence	Quite A bit	A great deal
1	How much can you do to get through to the most difficult students?					
2	How much can you do to help your students think critically?					
3	How much can you do to control disruptive behaviour in the classroom?					
4	How much can you do to motivate students who show low interest in school work?					
5	To what extent can you make your expectations clear about student behavior?					
6	How much can you do to get students to believe they can do well in school work?					
7	How well can you respond to difficult questions from your students?					
8	How well can you establish routines to keep activities running smoothly?					
9	How much can you do to help your students value learning?					
10	How much can you gauge student comprehension of what you have taught?					
11	To what extent can you craft good questions for your students?					
12	How much can you do to foster student creativity?					
13	How much can you do to get children to follow classroom rules?					
14	How much can you do to improve the					

	understanding of a student who is failing?					
15	How much can you do to calm a student who is disruptive or noisy?					
16	How well can you establish a classroom management system with each group of students?					
17	How much can you do to adjust your lessons to the proper level for individual students?					
18	How much can you use a variety of assessment strategies?					
19	How well can you keep a few problem students form ruining an entire lesson?					
20	To what extent can you provide an alternative explanation or example when students are confused?					
21	How well can you respond to defiant students?					
22	How much can you assist families in helping their children do well in school?					
23	How well can you implement alternative strategies in your classroom?					
24	How well can you provide appropriate challenges for very capable students?					

Appendix -II

انٹرنیشنل اسلامی یونیورسٹی، H-10، اسلام آباد

معزز۔۔۔۔۔۔۔۔۔۔

اسلام علیکم!

محقق انٹرنیشنل اسلامی یونیوسٹی اسلام آباد میں پی ایچ ڈی ایجوکیشن کا طالب علم ہے اور ڈگری کی جزوی تکمیل کے لیے تحقیق مقالہ بعنوان "Teacher Self Efficay and Student Achievement : An impact Study" لکھ رہا ہے۔اس کے لئے Date اکٹھا کرنے کے لئے آپ کی قیمتی آراء درکار ہیں۔ذیل میں پانچ درجاتی رینگ سکیل پر کلاس روم میں معلم کے رول کے حوالے سے کچھ بیانات دیئے گئے ہیں۔آپ سے گزارش ہے کہ ان بیانات کو غور سے پڑھ کر ان کے سامنے دیئے گئے سکیل پر مناسب نمبر پر دائرہ لگا کر اپنی رائے کا اظہار کریں۔آپ سے مکمل تعاون کی اُمید ہے۔شکریہ

محمد گلستان

نمبر شمار	بیان	نہایت اچھی طرح	کافی حد تک	کچھ حد تک	بہت کم	بالکل کچھ
1	کمزور ترین طلبہ کو کلاس کے ساتھ چلانے کے لیے آپ کس حد تک کوشش کر سکتے ہیں؟	5	4	3	2	1
2	آپ اپنے طلبہ میں مضمون کو سمجھنے کے حوالے سے تنقیدی فکر پیدا کرنے کے لیے کس حد تک کوشش کر سکتے ہیں؟					
3	معلم کلاس روم میں تدریسی معمولات میں ناگوار طرز عمل کس حد تک کنٹرول کر سکتا ہے؟					
4	آپ سکول ورک میں کم دلچسپی رکھنے والے طلبہ میں آمادگی اور ذوق وشوق پیدا کرنے کے لیے کس حد تک کوشش کر سکتے ہیں؟					
5	معلم طلبہ کے طرز عمل کے بارے میں اپنی توقعات کس حد تک اُن پر واضح کر سکتا ہے؟					
6	آپ طلبہ میں تعلیمی کام خوش اسلوبی سے کرنے کے لیے کس حد تک خود اعتمادی پیدا کر سکتے ہیں؟					
7	آپ طلبہ کے تعلیمی تجسس کی تشفی کے لیے اُن کے سوالات کے جوابات کس حد تک بہتر طور پر دے سکتے ہیں؟					
8	معلم تدریسی سرگرمیوں کو معمول کے مطابق خوش اسلوبی سے چلانے کے لیے کس حد تک کوشش کر سکتا ہے؟					
9	آپ طلبہ کو (ان کے بہتر مستقبل کی تعمیر کے لیے) حصول علم کو ناگزیر سمجھنے میں اُن کی کس حد تک مدد کر سکتے ہیں؟					

10	آپ طلبہ کی کارکردگی کا جائزہ لیتے ہوئے اُن کی مہارت / فہم وادراک کی کس حد تک درست پیمائش کر سکتے ہیں؟					
11	آپ تدریسی عمل کو بہتر بنانے کے لیے طلبہ کے لیے کس حد تک بہتر سوالات بنا سکتے ہیں؟					
12	آپ طلبہ کی تخلیقی صلاحیتوں کی نشوونما کے لیے کس حد تک کوشش کر سکتے ہیں؟					
13	معلم طلبہ سے کلاس روم کے اصولوں کی پابندی کس حد تک کروا سکتا ہے؟					
14	آپ سیکھنے کے عمل میں مشکلات کا سامنا کرنے والے طالب علم کی راہنمائی کس حد تک کر سکتے ہیں؟					
15	معلم تعلیمی عمل میں مخل ہونے والے طالب علم کی کس حد تک موثر تعلیمی راہنمائی کر سکتا ہے؟					
16	معلم کلاس روم میں طلبہ کے مختلف گروہوں کو نظم وضبط کا عادی بنا کر کس حد تک بہتر نظم وضبط قائم کر سکتا ہے؟					
17	تمام طلبہ کی انفرادی ضروریات کو مدنظر رکھتے ہوئے آپ سبق کے مندرجات میں کس حد تک مناسب ترمیم کر سکتے ہیں؟					
18	آپ طلبہ کا جائزہ لینے کے لیے کس حد تک مختلف موزوں ترین حکمت عملیاں اختیار کر سکتے ہیں؟					
19	معلم سبق کی تدریس کے تسلسل میں رکاوٹ ڈالنے والے طلباء کو کس حد تک مخل ہونے سے باز رکھ سکتا ہے؟					
20	معلم دوران تدریس مختلف تصورات سمجھانے کے لیے کس حد تک متبادل مثالیں دے سکتا ہے؟					
21	معلم سرکش طلبہ کی کس حد تک اصلاح کر سکتا ہے؟					
22	آپ سکول میں بہتر کارکردگی کے لیے طلبہ کے والدین کی کس حد تک معاونت کر سکتے ہیں؟					
23	معلم کمرہ جماعت میں کس حد تک بہتر متبادل حکمت عملیاں اختیار کر سکتا ہے؟					
24	معلم انتہائی ذہین طلبہ کے لیے کس حد تک تعلیمی چیلنجز پیش کر سکتا ہے؟					

Appendix -III

LIST OF SCHOOLS

1. GOVERNMENT HIGH SCHOOL NO. 1 CHAKWAL
2. GOVERNMENT HIGH SCHOOL NO. 2 CHAKWAL
3. GOVERNMENT HIGH SCHOOL KALLAR KAHAR CHAKWAL
4. GOVERNMENT HIGH SCHOOL BHAUN CHAKWAL
5. GOVERNMENT HIGH SCHOOL MUREED CHAKWAL
6. GOVERNMENT HIGH SCHOOL BALKASSAR CHAKWAL
7. GOVERNMENT HIGH SCHOOL NO.1 TALAGANG CHAKWAL
8. GOVERNMENT HIGH SCHOOL NO.2 TALAGANG CHAKWAL
9. GOVERNMET GIRLS HIGH SCHOOL NO. 1 CHAKWAL
10. GOVERNMENT GIRLS HIGH SCHOOL NO. 2 CHAKWAL
11. GOVERNMENT GIRLS HIGH SCHOOL KALLAR CHAKWAL
12. GOVERNMENT GIRLS HIGH SCHOOL BHAUN CHAKWAL
13. GOVERNMENT GIRLS HIGH SCHOOL MUREED CHAKWAL
14. GOVERNMENT GIRLS HIGH SCHOOL BALKASSAR CHAKWAL
15. GOVERNMENT GIRLS HIGH SCHOOL NO.1 TALAGANG CHAKWAL
16. GOVERNMENT GIRLS HIGH SCHOOL NO.2 TALAGANG CHAKWAL
17. GOVERNMENT PILOT SECONDARY SCHOOL ATTOCK
18. GOVERNMENT ISLAMIA HIGH SCHOOL ATTOCK
19. GOVERNMENT M.C. HIGH SCHOOL ATTOCK CITY
20. GOVERNMENT HIGH SCHOOL NO. 1 FATEH JANG ATTOCK
21. GOVERNMENT HIGH SCHOOL BASAL ATTOCK
22. GOVERNMENT HIGH SCHOOL RATWAL ATTOCK
23. GOVERNMENT HIGH SCHOOL MIANWALA ATTOCK

24. GOVERNMENT HIGH SCHOOL CHHAB ATTOCK
25. GOVERNMENT GIRLS HIGH SCHOOL NO.1 ATTOCK
26. GOVERNMENT GIRLS HIGH SCHOOL NO.2 ATTOCK
27. GOVERNMENT GIRLS HIGH SCHOOLNO. 1 FATEH JANG ATTOCK
28. GOVERNMENT GIRLS HIGH SCHOOL NO. 2 FATEH JANG ATTOCK
29. GOVERNMENT GIRLS HIGH SCHOOL MALAL ATTOCK
30. GOVERNMENT GIRLS HIGH SCHOOL JEHANABAD ATTOCK
31. GOVERNMENT GIRLS HIGH SCHOOL PIND SULTANI ATTOCK
32. GOVERNMENT GIRLS HIGH SCHOOL NILHAD ATTOCK
33. GOVERNMENT HIGH SCHOOL MIANWALI NEAR RAILWAY STATION MIANWALI
34. GOVERNMENT COMPREHENSIVE HIGH SCHOOL MIANWALI
35. GOVERNMENT CENTERAL MODEL HIGH SCHOOL MIANWALI
36. GOVERNMENT HIGH SCHOOL PAF COLONY MIANWALI
37. GOVERNMENT HIGH SCHOOL KALA BAGH MIANWALI
38. GOVERNMENT HIGH SCHOOL MADA KHEL MIANWALI
39. GOVERNMENT HIGH SCHOOL CHAPRI MIANWALI
40. GOVERNMENT HIGH SCHOOL SULTAN KHEL MIANWALI
41. GOVERNMENT GIRLS HIGH SCHOOL CIVIL STATION CANAL COLONY MIANWALI
42. GOVERNMENT GIRLS MODEL SCHOOL MIANWALI
43. GOVERNMET GIRLS HIGHER SECONDARY SCHOOL SHAHBAZ SHARIF MIANWALI
44. GOVERNMENT HIGHER SECONDARY SCHOOL PAF COLONY MIANWALI

45. GOVERNMENT GIRLS HIGH SCHOOL KALA BAGH MIANWALI
46. GOVERNMENT GIRLS HIGH SCHOOL SULTAN KHEL MIANWALI
47. GOVERNMENT GIRLS HIGH SCHOOL MUSA KHEL MIANWALI
48. GOVERNMENT GIRLS HIGH SCHOOL DAUD KHEL MIANWALI
49. GOVERNMENT CENTERAL MODEL HIGH SCHOOL LOWER MALL LAHORE
50. GOVERNMENT HIGH SCHOOL RETTIGUN ROAD LAHORE
51. GOVERNMENT ISLAMIA HIGH SCHOOL LITAN ROAD
52. GOVERNMENT MUSLIM MODEL HIGH SCHOOL URDU BAZAR LAHORE
53. GOVERNMENT SALEEM MODEL HIGH SCHOOL URDU BAZAR LAHORE
54. GOVERNMENT HIGH SCHOOL KHAZANA GATE LAHORE
55. GOVERNMENT ISLAMIA HIGH SCHOOL SUNT NAGAR LAHORE
56. GOVERNMENT CENTERAL MODELHIGH SCHOOL SAMAN ABAD LAHORE
57. GOVERNMENT HIGHER SECONDRY SCHOOL RAVI ROAD LAHORE
58. GOVERNMENT VICTORIA GIRLS HIGHER SECONDARY SCHOOL LOHARI GATE LAHORE
59. GOVERNMENT GIRLS HIGHER SECONDARY SCHOOL DEV SAMAG LAHORE
60. GOVERNMENT GIRLS HIGHER SECONDARY SCHOOL SAMAN ABAD LAHORE
61. GOVERNMENT COMPREHENSIVE GIRLS HIGH SCHOOL WAHDAT ROAD LAHORE

62. GOVERNMENT GIRLS HIGH SCHOOL ALLAMA IQBAL TOWN LAHORE
63. GOVERNMENT GIRLS HIGH SCHOOL NAPPIER ROAD LAHORE
64. GOVERNMENT GIRLS HIGH SCHOOL FEROUZPUR ROAD LAHORE
65. GOVERNMENT MODEL HIGH SCHOOL LEYYAH
66. GOVERNMENT M.C. HIGH SCHOOL LEYYAH
67. GOVERMEN MUSLIM HIGH SCHOOL CHOWK AZAM
68. GOVERNMENT HIGH SCHOOL CHOUBARA LEYYAH
69. GOVERNMENT HIGH SCHOOL CHAK NO. 287 TDA LEYYAH
70. GOVERNMENT HIGH SCHOOL 464 TDA LEYYAH
71. GOVERNMENT HIGH SCHOOL 236 TDA LEYYAH
72. GOVERNMENT HIGH SCHOOL 98 TDA LEYYAH
73. GOVERNMENT GIRLS MODEL HIGH SCHOOL LEYYAH
74. GOVERNMENT GIRLS HIGH SCHOOL CANAL COLONY LEYYAH
75. GOVERNMENT GIRLS HIGH SCHOOL SUGAR COLONY LEYYAH
76. GOVERNMENT GIRLS HIGH SCHOOL CHOWK AZAM LEYYAH
77. GOVERNMENT GIRLS HIGH SCHOOL 268 TDA LEYYAH
78. GOVERNMENT GIRLS HIGH SCHOOL DHORI ADDA LEYYAH
79. GOVERNMENT GIRLS HIGH SCHOOL 377 TDA LEYYAH
80. GOVERNMENT GIRLS HIGH SCHOOL LADHANA LEYYAH
81. GOVERNMENT HIGH SCHOOL KHANPUR BUGGSHER MUZAFFAR GARH
82. GOVERNMENT HIGH SCHOOL MURADABAD MUZAFFAR GARH
83. GOVERNMENT HIGH SCHOOL LANGERSORAY MUZAFFAR GARH
84. GOVERNMENT HIGH SCHOOL BULLAHPUR MUZAFFAR GARH

85. GOVERNMENT HIGH SCHOOL TALKOT MUZAFFAR GARH

86. GOVERNMENT HIGH SCHOOL BASTI MAHARAN MUZAFFAR GARH

87. GOVERNMENT HIGH SCHOOL SHAH JAMAL MUZAFFAR GARH

88. GOVERNMENT HIGH SCHOOL GHAZI GHAT MUZAFFAR GARH

89. GOVERNMENT GIRLS HIGH SCHOOL KHURSHIDABAD MUZAFFAR GARH

90. GOVERNMENT GIRLS HIGH SCHOOL KHAN GARH MUZAFFAR GARH

91. GOVERNMENT GIRLS HIGH SCHOOL JATOI MUZAFFAR GARH

92. GOVERNMENT GIRLS HIGH SCHOOL ALI PUR MUZAFFAR GARH

93. GOVERNMENT GIRLS HIGH SCHOOL BASEERAH MUZAFFAR GARH

94. GOVERNMENT GIRLS HIGH SCHOOL MEHMOOD KOT MUZAFFAR GARH

95. GOVERNMENT GIRLS HIGH SCHOOL SHAH JAMAL MUZAFFAR GARH

96. GOVERNMENT GIRLS M.C. HIGH SCHOOL MUZAFFAR GARH

97. GOVERNMENT HIGHER SECONDARY SCHOOL JACOBABAD

98. GOVERNMENT HAMIDIA HIGH SCHOOL JACOBABAD

99. GOVERNMENT S.M.A HIGH SCHOOL JACOBABAD

100. GOVERNMENT HIGH SCHOOL BHALEDINO ABAD JACOB ABAD

101. GOVERNMENT HIGH SCHOOL NAWRA JACOBABAD

102. GOVERNMENT HIGHER SECONDARY SCHOOL GARHI KHAIRO JACOBABAD

103. GOVERNMENT HIGHER SECONDARY SCHOOL MUHAMMAD PUR ODHO JACOBABAD

104. GOVERNMENT HIGH SCHOOL MIRAN PUR BURIRO JACOBABAD

105. GOVERNMENT N.K.G.GIRLS HIGH SCHOOL JACOBABAD

106. GOVERNMENT GIRLS HIGH SCHOOL JACOBABAD

107. GOVERNMENT GIRLS SINGLE SECTION HIGH SCHOOL JACOBABAD

108. GOVERNMENT GIRLS HIGH SCHOOL HAJI ALLAN KHAN JACOBABAD

109. GOVERNMENT GIRLS HIGHER SECONDARY SCHOOL GARHI KHERO

110. GOVERNMENT GIRLS HIGH SCHOOL MIRAN PUR BURIRO JACOBABAD

111. GOVERNMENT N.K.G. GIRLS HIGHER SECONDARY SCHOOL JACOBABAD

112. GOVERNMENT HIGHER SECONDARY SCHOOL THULL JACOBABAD

113. GOVERNMENT COMPREHENSIVE HIGH SCHOOL MIRPUR KHAS

114. GOVERNMENT HIGH SCHOOL MIRPUR KHAS

115. GOVERNMENT SHAH WALLI ULLAH HIGH SCHOOL MIRPUR KHAS

116. GOVERNMENT DAR UL QASIMIYA HIGH SCHOOL MIRPUR KHAS

117. GOVERNMENT HIGH SCHOOL JHALREE HUSSAIN BAKHASH MUREE MIRPUR KHAS

118. GOVERNMENT HIGH SCHOOL MUKHAN SUMMO MIRPUR KHAS

119. GOVERNMENT HIGH SCHOOL THURVI SINDHAREE MIRPUR KHAS

120. GOVERNMENT HIGH SCHOOL SINDHAREE MIRPUR KHAS

121. GOVERNMENT BHAN SINGH GIRLS HIGH SCHOOL MIRPUR KHAS

122. GOVERNMENT GIRLS HIGHER SECONDARY SCHOOL MIRPUR KHAS
123. GOVERNMENT APWA GIRLS HIGH SCHOOL MIRPUR KHAS
124. GOVERNMENT HUDSON GIRLS HIGH SCHOOL MIRPUR KHAS
125. GOVERNMENT GIRLS HIGH SCHOOL JARWAR SINDHAREE MIRPUR KHAN
126. GOVERNMENT GIRLS HIGH SCHOOL JAMUSABAD MIRPUR KHAS
127. GOVERNMENT GIRLS HIGH SCHOOL DRIGHRI MIRPUR KHAS
128. GOVERNMENT TANDO JAN MUHAMMAD GIRLS HIGH SCHOOL MIRPUR KHAS
129. GOVERNMENT HIGH SCHOOL NO.1 SOCIETY HYDERABAD
130. GOVERNMENT NUR MUHAMMAD HIGH SCHOOL HYDERABAD
131. GOVERNMENT NATIONALIZED HAMYAT UL ISLAM HIGH SCHOOL HYDERABAD
132. GOVERNMENT MUSLIM HIGH SCHOOL HYDERABAD
133. GOVERNMENT HIGH SCHOOL HATRI HYDERABAD
134. GOVERNMENT HIGH SCHOOL TANDO HYDER
135. GOVERNMENT HIGH SCHOOL HUSRI HYDERABAD
136. GOVERNMENT HIGH SCHOOL SERI HYDERABAD
137. GOVERNMENT GIRLS HIGH SCHOOL HIRABAD HYDERABAD
138. GOVERNMENT GIRLS HIGH SCHOOL SHAH ABDUL LATIF HIRABAD
139. GOVERNMENT GIRLS HIGH SCHOOL MEHRAN TANDO AGHA
140. GOVERNMENT GIRLS HIGH SCHOOL S.K.RAHIM HYDERABAD
141. GOVERNMENT GIRLS HIGH SCHOOL TANDO FARM HYDERABAD

142. GOVERNMENT GIRLS HIGH SCHOOL TANDO JAM HYDERABAD

143. GOVERNMENT GIRLS HIGH SCHOOL CHUKHI HYDERABAD

144. GOVERNMENT GIRLS HIGH SCHOOL HUSRI HYDERABAD

145. GOVERNMENT SITE HIGHER SECONDARY SCHOOL KARACHI

146. GOVERNMENT HIGH SCHOOL LASI PARAH KARACHI

147. GOVERNMENT HIGH SCHOOL KEMAREE KARACHI

148. GOVERNMENT SHAMUS HIGH SCHOOL MUJAHID COLOUNY MOMEN ABAD KARACHI

149. GOVERNMENT BOYS HIGH SCHOOL ANJMAN MUHAMMADI IRANI CAMP KARACHI

150. GOVERNMENT BOYS HIGH SCHOOL FAIZUL ISLAM RASHEED ABAD KARACHI

151. GOVERNMENT BOYS SECONDARY SCHOOL NO.3 NAZIMABAD KARACHI

152. GOVERNMENT BAHADUR YAR JANG BOYS SECONDARY SCHOOL JANSHED ROAD KARACHI

153. GOVERNMENT BAHADUR YAR JANG GIRLS SECONDARY SCHOOL JAIL ROAD

154. GOVERNMENT GIRLS SECONDARY SCHOOL SHARAF ABAD NEAR T.V. STATION

155. GOVERNMENT GIRLS HIGH SCHOOL PEER ELLAHI BAKHASH P.B. COLONY

156. MARINE GOVERNMENT GIRLS SECONDARY SCHOOL PRESS QUARTERS KARACHI

157. GOVERNMENT GIRLS SECONDARY SCHOOL NO. 2 NAZIM ABAD NO. 4 KARACHI

158. CITY DISTRICT GOVERNMENT GIRLS SECONDARY SCHOOL AZEEM PURA

159. GOVERNMENT GIRLS SECONDARY SCHOOL ALI GARH KARACHI WEST

160. GOVERNMENT MAQBUL E AAM GIRLS SECONDARY SCHOOL NEAR T.V. STATION

161. GOVERNMENT HIGH SCHOOL CIVIL QUARTERS PESHAWAR

162. GOVERNMENT HIGH SCHOOL NO.2 PESHAWAR CITY

163. GOVERNMENT HIGH SCHOOL NANAK PURAH PESHAWAR

164. GOVERNMENT HIGH SCHOOL NO.1 PESHAWAR CANTT

165. GOVERNMENT HIGH SCHOOL MUSA ZAI PESHAWAR

166. GOVERNMENT HIGH SCHOOL CHAMKANI PESHAWAR

167. GOVERNMENT MIAN GUJJAR HIGH SCHOOL PESHAWAR

168. GOVERNMENT HIGH SCHOOL PARNAB FARM PESHAWAR

169. GOVERNMENT GULBAHAR GIRLS HIGH SCHOOL PESHAWAR CITY

170. GOVERNMENT GIRLS HIGH SCHOOL DABGARI PESHAWAR

171. GOVERNMENT GIRLS HIGH SCHOOL CITY RAILWAY STATION PESHAWAR

172. GOVERNMENT GIRLS HIGH SCHOOL HAZAR KHAWANI PESHAWAR

173. GOVERNMENT GIRLS HIGH SCHOOL SUROZAI PESHAWAR

174. GOVERNMENT GIRLS HIGH SCHOOL BUNDI PESHAWAR

175. GOVERNMENT GIRLS HIGH SCHOOL URNAR PESHAWAR

176. GOVERNMENT GILS HIGH SCHOOL BADABER PESHAWAR

177. GOVERNMENT HIGH SCHOOL NO.1 BANNU

178. GOVERNMENT HIGH SCHOOL NO.2 BANNU

179. GOVERNMENT HIGH SCHOOL NO.3 BANNU

180. GOVERNMENT CENTENNIAL MODEL SCHOOL FOR BOYS BANNU

181. GOVERNMENT HIGH SCHOOL MIRA KHEL BANNU

182. GOVERNMENT HIGH SCHOOL BANGI KHAN KHUJARI BANNU

183. GOVERNMENT HIGHER SECONDARY SCHOOL GHORWALA BANNU

184. GOVERNMENT HIGH SCHOOL SERU BADA KHEL BANNU

185. GOVERNMENT GIRLS HIGH SCHOOL NO.3 BANNU

186. GOVERNMENT GIRLS HIGH SCHOOL NO.4 BANNU

187. GOVERNMENT CENTENNIAL MODEL SCHOOL FOR GIRLS BANNU

188. GOVERNMENT HIGHER SECONDRY NO.2 BANNU

189. GOVERNMENT HIGHER SECONDARY SCHOOL MANDOZAI BANNU

190. GOVERNMENT GIRLS HIGH SCHOOL KAKKI BANNU

191. GOVERNMENT GIRLS HIGHER SECONDARY SCHOOL SIKANDER KHEL BANNU

192. GOVERNMENT GIRLS HIGHER SECONDRY SCHOOL GHORWALA BANNU

193. GOVERNMENT HIGH SCHOOL NO.1 LAKKI

194. GOVERNMENT HIGH SCHOOL NO.2 LAKKI

195. GOERNMENT CENTENNIAL MODEL SCHOOL FOR BOYS LAKKI

196. GOVERNMENT HIGH SCHOOL NO.3 LAKKI

197. GOVERNMENT HIGH SCHOOL PAHAR KHEL LAKKI

198. GOVERNMENT HIGH SCHOOL AHMED KHEL LAKKI

199. GOVERNMENT HIGH SCHOOL KHAN KHEL MANDOZAI LAKKI

200. GOVERNMENT HIGH SCHOOL ISAK KHEL LAKKI

201. GOVERNMENT GIRLS HIGH SCHOOL NO.1 LAKKI

202. GOVERNMENT GIRLS HIGH SCHOOL NO.2 LAKKI

203. GOVERNMENT GIRLS CENTENNIAL MODEL HIGH SCHOOL LAKKI

204. GOVERNMENT GIRLS HIGH SCHOOL NO.1 SERAI NAURANG LAKKI

205. GOVERNMENT GIRLS HIGH SCHOOL SARDAR MAIDA KHEL LAKKI

206. GOVERNMENT GIRLS HIGH SCHOOL GHAZI KHEL LAKKI

207. GOVERNMENT GIRLS HIGH SCHOOL SHAHBAZ KHEL LAKKI

208. GOVERNMENT GIRLS HIGHER SECONDARY SCHOOL TITTER KHEL LAKKI

209. GOVERNMENT HIGH SCHOOL TOWN COLONY KARAK

210. GOVERNMENT HIGH SCHOOL TAKHTI NASRATI KARAK

211. GOVERNMENT CM HIGH SCHOOL CHOKARA KARAK

212. GOVERNMENT HIGH SCHOOL REHMAT ABAD KARAK

213. GOVERNMENT HIGH SCHOOL AHMED ABAD KARAK

214. GOVERNMENT HIGH SCHOOL BAHADAR KHEL KARAK

215. GOVERNMENT HIGH SCHOOL MAMMI KHEL KARAK

216. GOVERNMENT HIGH SCHOOL TATTAR KHEL KARAK

217. GOVERNMENT GIRLS HIGH SCHOOL NO.1 KARAK

218. GOVERNMENT GIRLS CM HIGH SCHOOL NO. 2 KARK

219. GOVERNMENT GIRLS HIGH SCHOOL TAKHTI NASRATI KARAK

220. GOVERNMENT GIRLS HIGHER SECONDRY SCHOOL KARAK

221. GOVERNMENT GIRLS HIGH SCHOOL AHMAD ABAD KARK

222. GOVERNMENT GIRLS HIGHER SECONDARY SCHOOL CHOKARA KARAK

223. GOVERNMENT GIRLS HIGH SCHOOL BAHADAR KHEL KARK

224. GOVERNMENT GIRLS HIGH SCHOOL JEHANGIRI KARAK

225. GOVERNMENT BOYS HIGH SCHOOL RAILWAY COLONY SIBI

226. GOVERNMENT BOYS HIGH SCHOOL GHARIBABAD SIBI

227. GOVERNMENT BOYS HIGH SCHOOL DHAPAL KHORD SIBI

228. GOVERNMENT BOYS HIGH SCHOOL BADRAH SIBI

229. GOVERNMENT BOYS HIGH SCHOOL CHANDIA SIBI

230. GOVERNMENT BOYS HIGH SCHOOL KHAJAK SIBI

231. GOVERNMENT BOYS HIGH SCHOOL KARAK SIBI

232. GOVERNMENT BOYS HIGH SCHOOL LUNI SIBI

233. GOVERNMENT GIRLS HIGH SCHOOL RAILWAY COLONY SIBI

234. GOVERNMENT GIRLS HIGH SCHOOL SIBI TOWN

235. GOVERNMENT GIRLS HIGH SCHOOL GHARIBABAD SIBI

236. GOVERNMENT GIRLS HIGH SCHOOL DHAPAL KHORD SIBI

237. GOVERNMENT GIRLS HIGH SCHOOL KHAJAK SIBI

238. GOVERNMENT GIRLS HIGH SCHOOL KARAK SIBI

239. GOVERNMENT GIRLS HIGH SCHOOL LUNI SIBI

240. GOVERNMENT GIRLS HIGH SCHOOL TANIA SIBI

241. GOVERNMENT BOYS HIGH SCHOOL CENTERAL HUDA QUETTA

242. GOVERNMENT BOYS HIGH SCHOOL WAHDAT COLONY QUETTA

243. GOVRNMENT BOYS HIGH SCHOOL HANNA QUETTA

244. GOVERNMENT BOYS HIGH SCHOOL SANDAMAN QUETTA

245. GOVERNMENT BOYS HIGH SCHOOL KAICHI BAIG SARIAB QUETTA

246. GOVERNMENT BOYS HIGH SCHOOL SARIAB MILLS QUETTA

247. GOVERNMENT BOYS HIGH SCHOOL HAZARA SOCIETY QUETTA

248. GOVERNMENT COMPREHENSIVE BOYS HIGH SCHOOL QUETT

249. GOVERNMENT GIRLS HIGH SCHOOL RAILWAY COLONY QUETTA

250. GOVERNMENT LADY SANDAMAN GIRLS HIGH SCHOOL QUETTA

251. GOVERNMENT GIRLS HIGH SCHOOL SHAHDARRAH QUETTA

252. GOVERNMENT GIRLS HIGH SCHOOL HAJI GHAIBI ROAD QUETTA

253. GOVERNMENT GIRLS HIGH SCHOOL MISSION ROAD QUETTA

254. GOVERNMENT GIRLS HIGH SCHOOL JINNAH TOWN QUETTA

255. GOVERNMENT GIRLS HIGH SCHOOL SARIAB ROAD QUETTA

256. GOVERNMENT GIRLS HIGH SCHOOL HANNA ROAD QETTA

Reliability of the Instrument

Sr.	Factors	Coefficient of Reliability
1	The general alpha Coefficient	.93
2	Classroom Management	.84
3	Student Engagement in Classroom	.82
4	Using Instructional Strategies	.86