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Effect of Teachers' Self Efficacy and Instructional Strategies on Students' Engagement at Secondary School Level

Sadia Khalid [*] | Mumtaz Akhter [†]

Abstract: *The concept of self-efficacy was developed initially by Albert Bandura and has been defined as the personal belief that one can perform appropriately and effectively to attain specific goals related to any field. Self-efficacy is a self-system that controls all our activities, including appropriate professional knowledge and skills. Teachers' self-efficacy is the belief that teachers have about their abilities and skills as educators. Both on an individualized and collective scale, teachers' efficacy is one of the strongest predictors of student engagement. This study explored the effect of teachers' self-efficacy and instructional strategies on students' engagement at the secondary school level in Punjab. So, the teachers with relatively higher self-efficacy would have extraordinary ability to engage students with the material, pedagogical practice, and control of the classroom environment. The study followed the causal-comparative research design that attempted to find relationships between independent and dependent variables. The researcher developed the questionnaire by herself, consisting of 60 items in total. The questionnaire sample comprised 1250 secondary school teachers from Punjab. Quantitative data on teachers' self-efficacy was determined by computing the means of the TSES items. In addition to descriptive statistics, one-way ANOVA and multiple linear regression were used. This study may be helpful in future studies and teacher educators to understand teachers' sense of efficacy beliefs, which influence the teaching behaviors of the teachers in the classroom and students' engagement.*

Key Words: Teachers' Efficacy, Instructional Strategies, Students' Engagement

Introduction

Since ages, knowledge, skills, and experiences are transferred from generation to generation with ongoing education and learning processes. Students and teachers are two essential elements of any educational process. Thus, teachers' beliefs, attitudes, and instructional practices in the classrooms are very important for successfully implementing the educational goals and improving the pupils' learning experiences. (Shaukat, 2011).

The current topic taken for the research is about the self-efficacy beliefs in teachers and how there are affecting the instructional strategies and students' engagement in a classroom. Bandura first introduced the concept of self-efficacy in 1977 that was based on his theory of social learning. In

simple words, it is simply the self-assurance of an individual in completing a task as required. The beliefs can include the knowledge, skills, judgment, evaluations, thoughts, ideas, behavior, and level of competency of an individual or group. (Kurt *et al.*, 2012; Caprara *et al.*, 2012).

The efficacy beliefs in teachers are the self-judgments regarding the teaching strategies to fulfil the educational goal to bring positive changes in the behaviors of the pupils. In the academic context, assessing self-efficacy beliefs can be defined as the "teachers' efficacy." In literature, it is stated as a teachers' trust and confidence in their abilities to meet the expectations of the teaching and learning goals. Therefore, teachers with a higher sense of efficacy

[*] Phd Scholar, Institute of Education and Research, University of Punjab, Lahore, Punjab, Pakistan.
Email: saadia.khalid@amalacademy.org
[†] Professor, University of Management & Technology, Lahore, Punjab, Pakistan.

achieve their fulfilment of the educational purposes. (Shehzada, Khatoon, Shamsa & Hassan, 2011).

The self-efficacy beliefs in the teachers have a direct influence on their job performance, students' learning, engagement, achievement, and overall system of education. For the last 25 years, this topic has become extremely important in teacher education and impacting the classroom environment in various ways, like instructional strategies, practices in the classroom, and students' engagement during the instruction. (Tweed, 2013).

The beliefs regarding self-efficacy in teachers are fundamental in understanding its relation with designing the content goals, teaching strategies, motivational strategies, student achievement, and engagement. (Edwards, 2014).

The teachers' efficacy seems to help determine the quality of the teaching, and teachers may change their teaching strategies to improve the students' learning. (Lee, Cawthon & Dawson, 2013; Pendergast, Garvis, & Keogh, 2011). The teachers' efficacy usually includes how teachers plan instruction, teaching skills/abilities and professional knowledge. (Klassen & Chiu, 2010.) Moreover, Khurshid, Qasmi and Ashraf (2012) specified the importance of the teachers' efficacy that it helps teachers in becoming more organized in planning, applying new innovative ideas in the classroom, and encouraging students to perform well

Armor and his colleagues in 1976 were the first to imply the concept of the teachers' efficacy in the classroom settings. The others like Berman, McLaughlin, Bass, Pauly (1977), Ashton and Webb (1986), and Gibson and Dembo (1984) also contributed to similar concepts based on educational research. Denham and Michael (1981) and Woolfolk and Hoy (1990) were also renowned researchers in defining the different aspects and applicability of the teachers' efficacy in educational institutions.

The study also showed a strong relationship between the teachers' efficacy, self-confidence about their abilities, and delivering professional knowledge in the classroom with engaging students positively. (Tschannen-Moran & Woolfolk Hoy, 2007). The assessment of self-efficacy beliefs may help the evaluators determine the strengths and weaknesses and suggest ways to improve the teaching and motivation strategies for students' interests. (Adu, Tadu & Eze, 2012).

Much educational research and reforms have examined improving student learning and student engagement over the past two decades. As a result, many efforts were made to bring new school reforms to positive changes and improvement at the school level by training the teachers professionally. A concern was raised by the research conducted by Gul in 2014 with Pakistani context about the declining quality of the school teachers teaching at the secondary level in Pakistan. The researcher believed an immediate need for teachers' training to gain competence in their teaching styles, professional knowledge, and engaging students. Secondary school education is the changing point for many students in Pakistan to choose a professional career in later years. Thus, it could not be unnoticed that students at the secondary level are not performing well with the needs of society. So, the purpose of the study was to see the effect of teachers' self-efficacy and instructional strategies on students' engagement at the Secondary level in Punjab.

Literature Review

The efficacy related to the instructional strategies in teachers refers to their confidence in their ability to apply engaging and creative ways of teaching to increase student learning. The efficacy of teachers for engaging the students in the classes is related to their self-confidence to drive students to learn more effectively. (Bilali, 2013).

Teachers' efficacy for effective classroom instruction is demonstrated by their ability to organize, design, and implement the curriculum that brings positive results in acceptable learning settings (Pas, Bradshaw & Hershfeldt, 2012). According to Pas *et al.* (2012), practical education, proactive and positive classroom management, and student involvement are linked to teacher efficacy. When instructors' teaching efficacy is high, they are more likely to use a variety of motivational and instructional materials tactics that are beneficial to student engagement to achieve more even in difficult learning situations.

Holzberger, Philipp, and Kunter (2013) looked at the impact of instructors' efficacy beliefs on the quality of their instruction. Not only did teachers estimate their performance in this study, but students also evaluated the quality of their

teachers' instructions. After analyzing the results, the researchers revealed a considerable positive link between teachers' efficacy and their instructional quality.

In 2013, Eckert categorized forty-four engagement studies into three categories: behavioral, emotional, and cognitive. "Behavioral engagement" is defined as "performing work and following rules; emotional engagement is defined as "interest, values, and feelings; and cognitive engagement is defined as "motivation, effort, and strategy utilization," according to them. These categories aid in the comprehension of student participation.

Moon (2014) looked at how teachers think about what drives students and how students think about their motivation. He discovered that the attributions of professors and students are not the same. Teachers attach students' motivation to their traits, but students ascribe their drive to their intrinsic motivation or their accepted goals.

Teachers' expectations for student success are not the same as instructors' self-efficacy, according to Stipek (2012), but they are related in that students' success is to some extent a result of teachers' ability to deliver positive learning outcomes. Efficacious teachers are usually more experienced teachers who are confident in their abilities to use various tactics to create relationships with students and involve them in a positive learning environment.

Prichard and Moore (2016) found out that both students and instructors valued the learning in different developmental phases, with teachers, in particular, acknowledging the importance of the teacher-student relationship in a positive sense. The classroom setting should contribute to children's physical, cultural, and socioemotional well-being in addition to emotional stability.

Sivri and Balc (2015) demonstrated how high and low expectation instructors' pedagogical attitudes and self-reported practices differed significantly. Teachers with high expectations seemed to regard the classroom's social milieu. These tutors engaged students personally and actively, promoting cooperative learning. They said they encouraged their kids to collaborate with a variety of people. Teachers believed that while students should take some responsibility for their learning, teachers should keep a vigilant eye on their development phase in the learning process.

Teachers with a higher efficacy are less critical of student mistakes and more persistent and willing to take chances, such as trying new tactics, because they are less afraid of failure and criticism (Tao, 2012).

Teachers must have high efficacy beliefs to remain committed and persistent in this era of digital learning. Academic engagement is defined as a student's level of involvement in their academic work and their perseverance and commitment to learning. Participation by pupils will lead to participation in leading academic achievement. Furthermore, teacher self-efficacy is linked to student self-efficacy (Kozikolu, 2016).

Teachers who have a high sense of self-efficacy encourage students to have a high sense of self-efficacy. In contrast, teachers who have a poor understanding of self-efficacy encourage students to have a low sense of self-efficacy. Teachers with high self-efficacy are very knowledgeable about their subject matter, ready to meet their students' expectations, make their students happy by employing various teaching methods, and continue to research the most appropriate and pleasant teaching strategies for their students (Merc,2015).

Ortaçtepe and Akyel (2015) looked at the relationship between teacher efficacy and student engagement in secondary school. He looked at the effects of high and poor teacher efficacy on student performance and teachers' capacity to reach unmotivated and low-achieving pupils. After collecting and evaluating the data, he indicated a positive association between teachers' sense of efficacy and students' performance.

Statement of the Problem

The teachers in schools at the secondary school had an unbearable burden and responsibilities for

Completing the school tasks. It was understood that teachers' workloads and obligations had to be researched and analyzed for many years. Lesson planning, material preparation, classroom administration, meetings, student evaluation, and other administrative responsibilities made their school job challenging and stressful. As a result, teachers felt agitated with work stress in the classroom and even outside school hours. A heavy workload coupled with challenging and time-taking tasks can lead to irritation and make it harder for teachers to enhance their sense of

efficacy for effective growth in their careers. (Varghese *et al.,* 2016).

Therefore, this study explored the effect of teachers' self-efficacy and instructional strategies on students' engagement at secondary level schools in Punjab. Mostly, the training conducted for teachers' professional growth and development ignored enhancing personal and collective efficacy. So, the findings drawn from the study could help the policymakers and school administration to conduct the teachers' training to improve their efficacy skills as a teacher.

Objectives of the Study

The objectives of the study were:

1. To explore teachers' self-efficacy and instructional strategies on students' engagement at secondary level schools in Punjab.
2. To determine the influence of instructional strategies used by teachers in the classrooms on their level of efficacy.
3. To identify teachers' efficacy and their student engagement strategies among secondary school teachers of Punjab.

Research Questions

The research questions of the study were:

1. How do teachers' self-efficacy and instructional strategies affect students' engagement at secondary level schools in Punjab?
2. How to determine the influence of instructional strategies used by teachers in the classrooms on their level of efficacy?
3. How to identify the teachers' efficacy and their use of students' engagement tactics among secondary school teachers of Punjab?

Significance of the Study

This study is helpful to know the association of teachers' efficacy and instructional strategies with students' engagement as the teachers are associated with the student's success and failure in a classroom. The teachers having high efficacy will follow their lesson plan more effectively than the teachers with low efficacy.

Therefore, this study helps to know teachers' efficacy on their behaviors and actions to engage students. The highly responsible teachers are more organized, plan their teaching tasks, and try

to find more exciting and engaging ideas for achieving the learning goals. Thus, this study proved to be used in determining a teacher's strengths and weaknesses to improve his teaching. The study is helpful for other researchers to conduct researches in the future regarding the new aspects to the teachers' efficacy, teachers' actions/behaviors and students' engagement. So, this study on teachers' efficacy is valuable in addressing the teachers' beliefs, emphasizing their professional development through training for better job performance, and enhancing the productivity of the school.

Research Design

The research design chosen for the research study was quantitative casual-comparative. The research design had identified the effect of teachers' self-efficacy and instructional strategies on students' engagement at the secondary level schools in Punjab with the help of a survey questionnaire.

Population and Sample of the Study

All the secondary school teachers in public schools of Punjab are included as the population of the study. Punjab consists of nine divisions and 36 districts. There were a total of 275 higher secondary schools (135 boy's schools and 150 girl's schools). The total number of teachers working in these schools are 10,608 (School Education Department,2018).

Multistage stratified random sampling technique was used to choose the sample to conduct the study from the selected teachers. In the first stage, 36 districts of Punjab are divided based on divisional headquarters. After that, nine districts were selected through a systematic random sampling technique. After selecting 9 cities, 10% of secondary schools were chosen by using a proportionate stratified random sampling technique. From nine districts, 75 schools (35 boys and 40 girls) were selected, which was 10% of the total population. At the second stage, 1250 teachers were chosen randomly from the selected schools.

Instrumentation

The researcher developed the survey questionnaire by herself using three variables: teachers' efficacy, instructional strategies, and student engagement—the questionnaire

comprised a total of 60 items with a 5-point Likert scale. The responses for the questionnaire are stated from 5 to 1 as a great deal, quite a bit, to some extent, very little, and not much. The variable of teachers' efficacy and instructional strategies were taken as an independent and continuous variable of the study, whereas the variable of student engagement was taken as the continuous and dependent variable

The questionnaire was made standardized, and it was ensured that each teacher would interpret each question in the questionnaire in the same way as it was meant to be. The items are also kept simple, short, and contextual. The questionnaire consists of 60 items which take almost 20 minutes to complete.

Validity of the Instrument

To validate the survey research instrument, the researcher had sent the instrument to five experts belonging to the discipline of Academics for content validation., the experts were asked to provide feedback and assured that items are according to the functions of variables aligning with the Pakistani context and providing precise meanings. So, after the careful validation process and according to the majority of the experts, the sixty items were finalized for the pilot testing.

Pilot Testing

Then, the pilot study is carried out by the researcher in five schools. First, the researcher chooses fifty teachers from five schools to fill the survey questionnaire. After getting the teachers' responses, Cronbach Alpha was applied to estimate the values for the reliability test.

Reliability of the Study

The Cronbach's alpha coefficient value for teacher efficacy was 0.76., instructional strategies was 0.87 and students' engagement was 0.89. The Cronbach Alpha coefficient of the complete instrument was found to be 0.85. As a result of the reliability analysis made according to these values, it was determined that the scale sub-dimensions and the complete instrument was reliable and acceptable.

Data Analysis
Demographics

A total of 1250 teachers (M=731, F=519) from 75 (Boys=35, Girls=40) schools in nine districts of Punjab filled the questionnaires. The average age of most of the teachers was around 30 years. The majority of the teachers had a Masters's degree with almost three years of experience in the teaching career.

Table 1. Mean Values for the Variables

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Teacher Efficacy	1250	1.25	2.40	3.65	3.1367	.00708	.25040	.063
Instructional Strategy	1250	1.20	2.55	3.75	3.1646	.00784	.27714	.077
Student Engagement	1250	1.15	2.40	3.55	2.9901	.00780	.27572	.076

The above table shows the values of mean and standard deviation for the variables. The researcher has collected the data from 1250 teachers with 5-point Likert scale questionnaires. The mean responses for all the variables show the value of 3.5 with SD .25, which means that according to most of the teachers, it is indicated that teacher efficacy and instructional strategies affect student engagement to some extent.

Table 2. Regression Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.332[a]	.110	.108	.26034

Predictors: (Constant), Instructional strategy; Teacher efficacy

According to the table, the R-value represents the simple co-relation, and its value is .332, which indicates a low degree of relationship. The R $^{(2)}$ values indicate the extent of the variation in student engagement with teachers' efficacy and instructional strategies. In this case, the value of $R^{(2)}$ is .108, which is also low.

Table 3. Multiple Linear Regression

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	**Std. Error**	**Beta**		
1 (Constant)	1.550	.131		11.800	.000
Teacher Efficacy	.139	.030	.127	4.718	.000**
Instructional Strategy	.317	.027	.319	11.869	.000**

*Dependent Variable: Student Engagement; .000= ** 0.001 confidence level*

The linear regression is calculated to predict the students' engagement based on teacher efficacy and instructional strategies. The significant regression equation is found b=.127 (TE), and t=4.7 and p<0.001, and the significant regression equation is found b=.319. t=11.8 and p<0.001. It indicates that teachers' efficacy and instructional strategies significantly predict students' engagement.

Table 4. ANOVA[a] Analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.435	2	5.217	76.979	.000[b]
	Residual	84.516	1247	.068		
	Total	94.950	1249			

Dependent Variable: Student Engagement
Predictors: (Constant), Instructional Strategy, Teacher efficacy
*000= ** 0.001 confidence level*

The table indicates the regression model which predicted the significance of the dependent variable. For example, according to the table, the p-value in the regression model is less than 0.05, which significantly indicates the outcome variable (students' engagement).

Discussions and Conclusion

The current study's findings were consistent with the research conducted by Akram and Ghazanfar in 2014 that explained how efficacious teachers impact students' academic performance, engagement, and motivation. Teachers had a significant effect on whether or not a student succeeded or failed in the classroom. Teachers with high efficacy will adhere to their lesson plan better than teachers with poor efficacy. Mehta and Mehta's (2015) work adds to the current findings. In this study, almost 150 private school instructors in Haryana took part in the research to better understand teacher efficacy and student engagement. The results clearly showed that teachers were working under a lot of stress and workload, resulting in low efficacy using the TSES test model (Tschannen Moran & Hoy, 2001) and the Maslach Burnout Inventory.

Based on a linear regression and ANOVA inferential analysis, it was found that teacher efficacy, instructional strategies, and student engagement had a significant relationship. This finding matched that of Ortaçtepe and Akyel (2015), who studied the relationship between teacher efficacy and engaging the students at the secondary level. They looked at the effects of high and poor teacher efficacy on student performance and the capacity of teachers to motivate the low achievers. The data analysis reported a substantial disagreement between their efficacy impact on involving students with them for better learning.

In the light of the above findings and discussions, the following aspects can be concluded that it is easy to see why today's public school teachers might feel overwhelmed. Over the past two decades, they have been expected to meet higher and higher standards, but they haven't been equipped with the resources needed to meet those demands. They've been asked to teach more effectively, but they haven't received sufficient professional support for improving instruction. The teachers were only concerned with completing the lessons in a hurry without asking various questions regarding the lesson for better understanding. The teachers were overburdened and over-stressed and competing in a race to complete the syllabus. The teachers had less time to improve their teaching strategies, which led to low confidence and self-belief, and it was visibly

shown in their verbal and non-verbal communication. The teachers in the public schools were taking their jobs for granted, and they did not have enough resources to plan the lesson activities more interestingly to engage students with them.

And while they've been required to help every student master a rigorous curriculum, they do not necessarily believe they can meet every student's needs. So it's no wonder that many teachers feel defeated or, to put it in psychological terms, that they have lost their sense of self-efficacy.

Teachers were not fully aware of the importance of planning, executing, and implementing the lesson plan effectively using proper instructional and motivational strategies. The teachers lacked creative skills with less time and fewer resources.

A rising number of teachers leave the profession due to unnecessary job expectations and their failure to fulfil them effectively. Each school needs to have highly efficacious teachers to meet the quality standards. The literature suggested that teacher quality leads to higher student achievement, engagement, and fewer school dropouts. It must be the duty of the district and provincial school departments to initiate effective and quality training for newly inducted teachers so they may face fewer challenges related to planning and implementing the lesson plans while engaging the students effectively. As evident from many previous types of research, teachers who are confident in their ability and fully equipped with all sorts of instructional and motivational strategies can enable their pupils to score higher and become more responsible in their studies. The teachers who become more equipped with effective teaching strategies and appropriate teaching attitudes are more satisfied with their careers and always try to do better. They always tend to serve the profession positively. Most of the teachers were not aware of using motivational strategies to gain the students' attention. They could not create a learning-based classroom environment where everyone was welcome to talk, ask questions and communicate with each other. Most of the lessons are based on the lecture method; thus, group and teamwork were not promoted. The only chance for students to do group work was during science practicals or computer lab. Eventually, teachers were unable to engage students with low teacher's efficacy and less use of instructional strategies.

But schools can help teachers regain their sense of efficacy by engaging them in a systematic process of reflecting on their classroom expectations and practices, making adjustments, and taking careful note of improvements in student learning.

Recommendations

The following recommendations have been highlighted in light of the research findings.

1. All the programs related to teacher education may add the training modules that help the teachers develop their skills in preparing the instructional strategies, managing class and engaging students more effectively.

2. The courses in professional and career development programs may enhance teachers' efficacy skills as a compulsory part.

3. All the training institutes for teachers' education may work more on adding the content related to teachers' efficacy that may help make teachers more efficient in planning and implementing the curriculum with proper student engagement.

4. The teachers who are more competent in terms of qualification, training and experience may lead their sub-ordinate teachers in preparing the instruction, handling students with motivational strategies.

5. The teachers who are performing well with all their teaching tasks, engaging students, and bringing better class results may be provided with some rewards or bonus leaves to increase their level of motivation.

6. The higher authorities in the school department may check the lower school dropout rate, and the teachers with low dropouts in their classes may get the special rewards.

7. The school may consider making teachers' training and development a vital part of the monthly timetable to offer all staff a pleasant and appealing working environment.

8. Each public school may implement teacher capacity-building programs, including in-service training, to improve teachers' self-efficacy by improving subject mastery and providing them with new pedagogical skills.

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