

PERCEIVED SELF-EFFICACY AND ITS EFFECT ON TEACHERS' KNOWLEDGE AND TEACHERS' PEDAGOGICAL SKILLS: A CASE OF BALOCHISTAN, PAKISTAN

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Abstract

The present study was carried out to examine the effect of self-efficacy on teachers' performance. For the collection of required information, simple random sampling technique was used. Sample of the study consisted of 640 teachers (male = 320 and female = 320) and 640 students (Boys=320 and Girls=320). A teacher's self-efficacy scale established by Tschannen-Moran and Hoy (2001) was used for the data collection while a questionnaire was developed to assess the teachers' performance and for the validation of its Reliability and Validity from a local perspective, it was sent to experts for review and pilot testing. Descriptive statistics and regression analysis were used for the analysis of collected data. Results of the study revealed that the teacher's self-efficacy and teacher's knowledge had a significant positive impact on teachers' performance. This study recommended that the education department in collaboration with policymakers, educationists and stakeholders may develop professional courses and other teachers' education programs to develop the feeling of self-efficacy in secondary school teachers.

Keywords: Perceived Self-Efficacy, Teachers' knowledge, Teachers' pedagogical skills

INTRODUCTION

Education is a tool that can greatly benefit everyone in every sphere of life. It is something special that gives humans a unique status compared to other world species (Li, 2022). Man is now the most intelligent being on planet due to education, which has empowered him by imparting various abilities and skills which have helped him handle life's obstacles (Zrudlo, 2022). In today's interconnected world, education is more crucial than ever; its value extends well beyond the financial independence it may provide to individuals and communities of all sizes, making it the single most significant determinant in a country's prosperity, no matter how large or little (Margalit, et al 2022). Education is the doorway by which we enter the emerging international society (Boss, et al 2022). Providing more stability, education affects people's confidence in tremendously good ways, laying the path for more meaningful success stories across the globe today and in the future.

During the twenty-first century, formal education has evolved into a high-stakes game in which administrators and instructors are closely monitored for student achievement

(Binkley, et al 2012). Teachers may be the ones who feel the pressure of this scrutiny the most (Witt, et al 2022). Many educators need more self-assurance and empowerment to connect with students today (Kong, et al 2022). Student disengagement contributes to the ongoing decline in academic achievement (Martins, 2022). The teachers' confidence in themselves and their colleagues provides valuable and adequate training in assisting their pupils to succeed (Alam, 2022). Teachers who are at or above the required academic standards are one of several factors that will determine the future performance of Pakistan's educational system (Arif et al 2022). One of the best indicators of student accomplishment is teacher efficacy on an individual and group level (Ross & Bruce, 2007).

Problem Statement

Self-efficacy is a widely recognized construct, yet more attention needs to be paid nationally and internationally (Jensen et al., 2011). The relationship between teachers' performance and self-efficacy has only been planned and studied in a few scholarly studies, which further exhibits the study's scope and relevance (Fackler et al., 2021). No study is conducted to foresee the impact of perceived self- efficacy on teachers' performance in Balochistan, Pakistan as per knowledge of the researchers. Thus this study aims at measuring the impact of perceived self- efficacy on teachers' performance in Balochistan, Pakistan.

Significance of the Study

A study that investigates the effect of self-efficacy on the overall teachers' performance in Balochistan is significant as it can provide insight into the factors that influence the effectiveness of teachers in the province. This valuable information can be used to improve the teacher's training and support programs and inform policy decisions related to education in the region. Additionally, understanding the linkage between self-efficacy and teachers' performance can inform the development of strategies for improving the teachers' self-efficacy and ultimately enhancing his teaching performance.

Review of Related Literature

In the educational system of Pakistan, most instructors enter the field out of need rather than passion (Nawab, 2021). Inadequate accountability and academic standards directly affect teachers' need for more dedication to their union (Shafiq & Rana, 2016). The self-efficacy concept has received much attention from researchers across disciplines, particularly in academics, administration, medicine, and athletics. Having confidence in one's abilities is crucial in both the classroom and the classroom outside of it (Fernandez, 2016).

Perceived Self-efficacy

According to the psychologist Albert Bandura (1977) self-efficacy is the belief that one can achieve a particular goal within a specific time frame and under given conditions. It is trust in oneself in how he approaches objectives in his given job and how he solves the given set of problems (D'zurilla,1971).According to this theory, the issues can be solved resultantly if the individuals of that sector have a feeling of self-efficacy. Self-

efficacy is essential part of Bandura's social learning theory, which emphasizes the role of socialization and behavior modification in personality formation. The social cognitive theory proposes that people's actions and emotions, including their social behaviors and cognitive processes, are impacted by the behaviors they have witnessed, especially when faced with a problem that requires a solution. Since it is produced from external experiences and self-perception, self-efficacy is an essential component of social cognition theory (Anderson,2007). It has a good effect on the outcomes of many situations. Self-efficacy is a representation of the individual's outlook on external social circumstances (Zhang,2022). Bandura hypothesized that persons with a higher levels of self-efficacy, which is, confidence in their capacity to perform well, are more likely to take up demanding activities, as the well-determined can easily overcome the hurdles.

Teachers' Performance

A teacher's highly esteemed performance is vital to a child's healthy development (Buchanan,2022). One of the teachers' prime duties is discovering and nourishing a student's mental abilities (Ansari, (2020). According to Loeb (2017), as an interpreter, the teachers must set new information and experiences in a framework of what the pupils already know and understand. To be an effective mediator, he/she must thoroughly understand how people at different ages and stages of development have a new viewpoint of the world (Beaver,2022). As a teacher, he/she must educate the students on how to learn rather than filling his head with factual information.

Performance on the job is the point of extent where an employee fulfils a given role of his duty according to established standards (Johari, 2018). At the same time, a teachers' efficiency refers to a teacher's behavior that varies with the surrounding environment so in such a way that when a specific assignment is given to a teacher, the teacher completes the task at hand (Metekohy, et al 2022). The process of educating kids is contingent upon students' outstanding achievement, Consequently, numerous things contribute to it (Jerrim,(2022). An excellent instructor must be able to please the class with his distinctive teaching approach (Kaufmann, 2022).Moreover, they must manage time and other obligations, such as regulating ethics and discipline in class, encouraging students, guaranteeing students' involvement, and keeping positive relationships with the parents of students and educational institutions management in addition to teaching (Hanif, 2010).

a. Teachers' knowledge

According to König,2022, The teacher's knowledge encompasses a broad array of topics, including current trends in education, classroom management and instructional strategies, subject-specific content, and child development. Teachers must also be knowledgeable about curriculum, assessment, and the legal requirements for their district. Furthermore, teachers must have knowledge of using the given set of technology in classroom, how to differentiate instruction for students with different learning needs, and how to effectively collaborate with colleagues, administrators, and parents (Wagner,2022).

b. Teachers 'pedagogical knowledge

A teacher's capacity to instruct pupils and run their classroom is referred to as their pedagogical skills. Teachers acquire the necessary knowledge, comprehend their pupils, interact with parents, work cooperatively with their peers, and create their own fair and uniform rules. The teachers must possess a variety of pedagogical skills, including the ability to create engaging lessons, establish classroom rules, manage student behavior, and differentiate instruction (Park,2017). They should also be able to assess student learning, use a variety of instructional strategies, and collaborate with other teachers, staff, and parents. In addition, teachers must be knowledgeable about their subject area, have excellent communication and critical thinking skills, and be able to use technology to enhance instruction (Roberts,2022).

Relationship between teachers' knowledge and teachers' pedagogical skills

Teacher's knowledge and teacher's pedagogical skills are closely linked. A teacher's knowledge of the subject area provides the foundation for the development of effective teaching strategies and approaches. This knowledge informs the selection of appropriate instructional materials, the design of lessons and activities, and the evaluation of student learning (Nasiopoulou, 2022). In addition, a teacher's knowledge of the subject area shapes their ability to evaluate student progress, modify instruction, and identify areas of difficulty. Teacher's pedagogical skills are also closely linked to their knowledge. The ability to effectively plan, organize, and deliver instructions, and also the ability to effectively evaluate and estimate student's learning, are all dependent on the teacher's knowledge of the study area. Therefore, it is necessary that a teacher should have a deep understanding of their subject area and use this knowledge to inform their teaching practices (Darling,2000).

Self-efficacy and Teachers' performance:

Self-efficacy which represents the instructors' confidence in his capability to teach successfully, can be investigated from the perspective of academic performance or educational objectives (Kuo,2020). The concept of job performance is significant in organizational theory and human resource management (Burke,2023). Academic performance is important for students in realizing their optimum potential and for teachers to impart information and knowledge most efficiently and beneficially (Alam,2022). In university faculties, self-efficacy can be defined as a professor's confidence in carrying out specific duties that fall under their core responsibilities of teaching and research (Morales, 2014).

Hypothesis

Self-efficacy has a significant positive effect on teachers' knowledge.

Self-efficacy has a significant positive effect on teachers' pedagogical skills.

Research Methodology

Setting: The data sets were public secondary schools of Balochistan.

Population

The study population comprised of 1103 public secondary schools and 14,046 Secondary School teachers in Balochistan (Education, Management, and Information System. EMIS, 2020). The strength of secondary school in the year 2022 were 63506 (Balochistan Board of Intermediate and Secondary Education, 2022).

Sampling Technique

In this investigation, a multistage sampling technique was utilized. In the first step, divisional headquarters were picked from eight divisions using convenient sampling, which allowed the researchers to select a sample from a population set on the basis of those who were easily accessible and willing for the study. This technique is the most economical and time-efficient of all others (Bell,2022). In the second step, teachers were selected by stratified random sampling. The stratified random sampling method entails randomly selecting a reasonably large number of units from a population or particular subgroups (strata) of a population (Sharma, 2017).

Sample Size

According to Krejcie and Morgan (1970), as cited by Alshurideh (2019), when the population is 10000, the best sample size to be chosen is 622, and when it is 25000, the suitable sample size is 646. The margin of error will be 5%, and the confidence level will be 99%. The researchers have determined a sample size of 640 because the population of the study was 14046. This sample proved to be easily divisible, most of the issues related to data collection didn't arise, and the sample represented an even share of the population's various segments.

Research Design

The study was exploratory, and the survey technique was employed to gather information for the study. The survey research design is applied to investigate the effect of teachers' self-efficacy on their performance. The survey design was employed because it is the most noticeable research approach used in quantitative and social research (Bell,2022). Furthermore, the study design that is the most appropriate is survey research, when the researcher gives importance to the respondents' opinions (Creswell, 2012). Simultaneously, as mentioned earlier, the researcher intends to determine the relationship between the variables. As well, this research study is descriptive in nature. Moreover, the philosophical lens of the study is positivism (Creswell,2003).

Research procedures and instruments

Research procedures and instruments are methods employed for the collection of data in research studies such as surveys, interviews, questionnaires, tests, observations, and focus groups. In this study the researcher used survey method which is typically used to collect quantitative data, It employed a questionnaire which is mainly used to collect more detailed information related to both the dependent and independent variables. For both the variables, there were two questionnaires for data collection. The teachers' self-efficacy questionnaire was adopted (Tschannen-Moran and Hoy (2001),

while a teachers' performance questionnaire was developed by the principal researcher himself. A regression analysis was used to test and measure knowledge or skills of the secondary school teachers.

Validity and Reliability:

Validity and Reliability are the two essential concepts of the study that refer to the study variables' quality and trustworthiness (Sharif,2022). The Validity denotes the degree of the study to which it measures the connection between the teachers' self-efficacy and his performance. The study's Validity is checked through the significance levels of both variables. Reliability shows the consistency and stability of a study's results over time (Kennedy,2022). In the current case, it was checked through the standard errors, which are measured through its t values (Thompson,2011). Validity and Reliability are essential for establishing the credibility of research findings and ensuring that they can be trusted and used to make informed decisions. The Reliability of the sub-factors of self-efficacy is classroom engagement, student engagement and instructional strategies. The Reliability of these factors, classroom management, is 0.82, student engagement is 0.85, and instructional strategies are 0.79 At the same time, the Reliability of the factors of teachers' performance i.e. teachers' knowledge was 0.84, and teachers' pedagogical skills was 0.86.

Data Analysis

Table 1: Teacher Self-efficacy

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Overall self-Efficacy	641	2.29	5.00	4.2072	0.38021
Valid N (listwise)	641				

The table 1 shows the average or middle value of data set over which the full data of self-efficacy revolves. The mean of 641 values was 4.2072 and a Std Dev of 0.38021 showing the actual detected values of observations. The observed values show that the majority of observed values revolve around its mean.

Table 2: Description of the factors of self-Efficacy

	N	Minimum	Maximum	Mean	Std. Deviation
Efficacy in student engagement	641	1.63	5.00	4.1447	0.45197
Efficacy instructional strategy	641	2.50	5.00	4.2508	0.43470
Efficacy in classroom management	641	2.38	5.00	4.2404	0.39736
Valid N (listwise)	641				

The table 2 contains the numerical data representing a set of values showing the different factors of self-efficacy whereby the data set revolves around a central mean. The mean observed value of Self-Efficacy in student engagement was 4.1447 with a Std Dev of 0.45197. The mean observed value of self-efficacy in instructional strategy was 4.2508 and Std Dev of 0.43470 and the mean observed value of Efficacy in

classroom management was 4.2405 and Std Dev .39736 which means that the majority of observed values revolve around its mean.

Table 3: Effect of factors of Self-Efficacy on Teachers' Knowledge

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.849	.192		9.617	.000
1 Efficacy in student engagement	.093	.062	.087	1.505	.001
Efficacy instructional strategy	.392	.063	.352	6.266	.000
Efficacy in classroom management	.047	.067	.039	0.708	.000
R=0.749 ^a	R ² =0.602	Adj. R ² =0.698	F=153.68	α=0.000	

a. Dependent Variable: Teachers' Knowledge

Table 3 indicates 0.749 as the value of R which imitates that Self- Efficacy had a highly significant relation with the Efficacy in student engagement The value of R² was 0.602 and that of adjusted R-square was 0.698 which reflects that 60.2 % of the variability in efficacy in student engagement, efficacy in instructional strategy and efficacy in classroom is explained by self-efficacy. The F=153.68 and Sig=0.000 specifies statistically substantial and precise forecast between the variables at p=0.05 significance level. The value of beta for efficacy in student engagement is 0.087 which indicates that efficacy has a positive effect on efficacy in student engagement and the t value of 1.505 is statistically significant with α= 0.001. The value of β (slope of the coefficient) for efficacy in instructional strategy is 0/352 which indicates that self-efficacy has a positive effect on efficacy in instructional strategy and the t value of 6.266 is statistically significant with α= 0.000. The value of β (slope of the coefficient) for efficacy in classroom management is 0.039 which indicates that self-efficacy has a positive effect on efficacy in classroom management and the t value of 0.708 is statistically significant with α= 0.000.

Table 4: Effect of factors of Self-Efficacy on Teachers' Pedagogical skills

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.219	.203		10.932	.000
1 Efficacy in student engagement	.082	.065	.074	1.261	.208
Efficacy instructional strategy	.464	.066	.401	7.025	.000
Efficacy in classroom management	-.076	.070	-.060	-1.084	.279
R=0.417 ^a	R ² =0.174	Adj. R ² =0.170	F=44.61	α=0.000	

a. Dependent Variable: Teachers' Pedagogical Knowledge

Table 4 indicates that the value of R is 0.417 which reflects that Self Efficacy had a highly significant relation with the Efficacy in student engagement, efficacy in

instructional strategy and efficacy in classroom. The value of R^2 was 0.174 and that of adjusted R-square was 0.170 which reflects that 17.4 % of the variability in efficacy in student engagement, efficacy in instructional strategy and efficacy in classroom is explained by self-efficacy. The $F=44.61$ and $Sig=0.000$ specifies statistically substantial and precise forecast between the variables at $p=0.05$ significance level. The value of β (slope of the coefficient) for efficacy in student engagement is 0.074 which indicates that efficacy had a positive effect on efficacy in student engagement and the t value of 1.261 is statistically insignificant with $\alpha= 0.208$. The value of β (slope of the coefficient) for efficacy in instructional strategy is 0.401 which indicates that self-efficacy has a positive effect on efficacy in instructional strategy and the t value of 7.205 is statistically significant with $\alpha= 0.000$. The value of β (slope of the coefficient) for efficacy in classroom management is -0.060 which indicates that self-efficacy has a positive effect on efficacy in classroom management and the t value of -1.084 is statistically significant with $\alpha= 0.000$.

Table 5: Table of teacher knowledge and teacher pedagogical skills

	N	Minimum	Maximum	Mean	Std. Deviation
Teachers' Knowledge	641	2.00	5.00	4.1001	0.48411
Teachers' Pedagogical Knowledge	641	1.75	5.00	4.2087	0.50243
Valid N (list wise)	641				

The Table 5 shows the Descriptive Statistics of Teachers' knowledge and the Teachers' Pedagogical Knowledge. The variable of Teachers' knowledge had a mean of 4.1001 and a standard deviation of 0.48411 expressing a convergence of values around the central mean. Teachers' Pedagogical knowledge had a mean of 4.2087 and a standard deviation of 0.50243 expressing the convergence of opinions towards the central mean.

Table 6: Effect of perceived self-efficacy on teachers' knowledge

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
	1.765	.192		9.218	0.000
Perceived Self-efficacy	0.555	.045	0.436	12.241	0.000
$R=0.436^a$	$R^2=0.190$	Adj $R^2=0.189$	$F=149.84$	$\alpha=0.000$	

a. Dependent Variable: Teachers' Knowledge.

Table 6 indicates that the value of R is 0.436, which reflects that self-efficacy has a highly significant relationship with the teachers' knowledge. The value of R^2 is 0.190, which signifies that 19% of the variability in teachers' knowledge is explained by self-efficacy. The $F=149.84$ and $Sig. =0.000$ which specifies statistically substantial and precise forecast between the variables at $p=0.05$ significance level. The slope of the coefficient (beta) for self-efficacy is 0.555. It specifies that self-efficacy has a positive effect on a teachers' knowledge. The t value of 12.241 is statistically very substantial

with $\alpha = 0.000$ level of significance. This result verifies the outcome of the hypothesis, and the null hypothesis gets rejected while the alternative hypothesis gets accepted.

Table 7: Effect of perceived self-efficacy on teachers' pedagogical skills

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	2.103	.204		10.291	0.000
Perceived self-efficacy	.500	.048	.379	10.343	0.000
R=0.379 ^a	R ² =0.143	AdjR ² =0.142	F=106.98	α =0.000	

a. Dependent Variable: Teachers' Pedagogical skills.

Table 7 designates the R-value to 0.379, which replicates that self-efficacy has a highly significant relationship with the teacher's pedagogical skills. The value of R^2 is 0.143 which reflects that self-efficacy explains 14.3% of the variability in teachers' pedagogical skills. The $F=106.98$ and $\text{Sig.}=0.000$ which specifies statistically substantial and precise forecast between the variables at $p=0.05$ significance level. The value of the slope of the coefficient (β) for self-efficacy is 0.500, which specifies that self-efficacy has a positive effect on a teachers' pedagogical skills, and the t value of 10.343 shows a higher level of significance ($\alpha=0.000$). This result verifies the outcome of the hypothesis, and the null hypothesis gets rejected while the alternative hypothesis gets accepted.

Discussion:

The results have shown that self-efficacy has a significant positive effect on the teachers' knowledge and the teachers' pedagogical knowledge, which depicts the same reconnection in the study conducted by Zakeri, A., & Alavi, M. (2011) while the same variables had a weak negative relationship in the study being conducted by Miller, Ramirez, & Murdock, (2017). Self-efficacy had a significant positive relationship with the teacher's knowledge in our case study, which also confirms the findings of the studies being conducted by Depaepe & König, (2018) and Abbitt (2011) while the same variables had an antagonistic relationship in the studies being conducted by Vaezi, & Fallah, (2011). Self-efficacy has shown a significant negative relationship with teacher's pedagogical knowledge confirming the results of Love, Findley, Ruble, & McGrew (2020) and Kirkiç, & Çetinkaya, (2020).

Conclusion:

The study has studied the primary factors of self-efficacy along with the performance of teachers in the higher secondary schools in Balochistan, Pakistan.

In conclusion, perceived self-efficacy profoundly affects the teachers' performance in Balochistan, Pakistan. The teachers with an improved level of perceived self-efficacy are more likely to get motivated and willing to take on tasks and challenges, which can lead to improved performance and better results (Prifti, 2022). While Low perceived self-efficacy can lead to lower performance, as teachers may become less motivated to take

on tasks and challenges (Mamolo,2022). Therefore, it is important for teachers in Balochistan to recognize the importance of their perceived self-efficacy and to strive to increase it in order to enhance their performance. The study of teachers' knowledge and its effect on their performance in Balochistan, Pakistan has revealed that knowledge is an important factor in teachers' performance. Furthermore, knowledge has a direct effect on teachers' performance. It implies that the more knowledgeable a teachers are, the better their performance. Moreover, the study revealed that teachers' knowledge is also reflected in their professional development activities and their commitment to lifelong learning. Overall, this study suggests that teachers' knowledge is an important factor in their performance, and it should be further promoted so as to improve the quality of education in Balochistan, Pakistan.

Recommendations

1. Qualitative research is essential for providing context for quantitative findings. It is crucial to remember that each teacher's working conditions will be unique, given the wide variety of teaching roles in Pakistan. Because of this, qualitative research will be more helpful in determining the extent to which teachers are stressed by their jobs and dedicated to the profession.
2. A teacher's self-efficacy is an imperative feature in increasing teacher performance and improving student outcomes. The teacher must get professional training and should possess a mentor in order to develop his self-efficacy and build his confidence to the best of his ability to make a positive impact in the classroom.
3. Teachers should be encouraged to collaborate and share best practices with other teachers. This could be done through creating a school-wide professional learning community by attending workshops and seminars. This would help them to build a culture of collaboration and support within the school and create an environment of mutual respect and understanding between teachers.
4. Teachers should be given access to technology and resources to help them stay up-to-date with the latest teaching methods and practices. This could include providing access to computers and other digital resources, as well as funding for attending conferences and workshops.
5. It is advised that school administrators work hard to improve instructors' confidence in their own abilities so as to raise morale and, ultimately, student achievement.
6. Changes might be made to curricula with the hope of boosting educators' confidence in their own abilities. In order to grow as a person and to feel confident in one's abilities, educational opportunities are crucial.
7. One of the caveats is that the participants in this study are only secondary school instructors. Because of this, comparing it to any other organization is problematic.

Suggestions for further research

Future studies in this area should also account for the significant role played by moderating and mediating variables that are unrelated to employment. Quantitative research techniques, such as regression analysis, will be helpful in the future for determining the nature and pattern of employee turnover and intentions and establishing relationships between crucial factors.

The researcher suggests doing a quantitative and qualitative study together to better understand the interplay between the two sets of factors. Notwithstanding these caveats, the findings of this research provide important novel perspectives on the connection between teacher self-efficacy and teacher performance as they are applied to the public institutions.

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