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The Relationship among Teachers' Self-Efficacy Beliefs, Student Motivation, and Effective Teaching

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Abstract

Teaching children of poor and disadvantaged ethnic communities is always considered a tough job. This study was conducted to ascertain teachers' self-efficacy beliefs about motivating students studying in elementary schools run by an NGO in various districts of Punjab. It was assumed that ethnicity and marginalization influence self-efficacy beliefs, self-motivation, and, ultimately, professional commitment. This assumption was verified by this quantitative study using the survey method. The data was collected through a multistage sampling technique from 400 teachers working in schools for ethnic and poor communities in 8 districts of Punjab. The results show a significant relationship among teachers' perceptions of self-efficacy to motivate students, capacity for self-motivation, and professional commitment for effective teaching. A strong positive correlation was found among teachers' self-efficacy beliefs to apply effective teaching strategies to enhance motivation among students. Therefore, school management must focus on the intrinsic motivation of teachers so that they can self-motivate themselves for effective teaching.

Keywords: effective teaching, poor and disadvantaged ethnic communities, professional commitment, self-efficacy

Introduction

Motivation is the key to successful teaching and learning as it helps the teachers to energize students to learn and keep themselves on track to sustain and achieve their goals. Behind the curtain, motivational strategies provide recipes to teachers to implement lessons effectively, which push students to achieve their set goals (Nra & Vibulphol, 2020). Most students from disadvantaged communities believe that they cannot accomplish academic goals (Schunk & Mullen, 2012); they underestimate their strengths and capabilities (Laninga-Wijnen et al., 2018). In such a condition, the self-motivation of teachers plays a crucial role in motivating the students.

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Teachers' self-motivation is created through teachers' particular encounters as learners (Raths & McAninch, 2003); besides, their expert encounters as instructors (Avalos, 2011) also count much in further strengthening of their self-efficacy beliefs (Tastan et al., 2018).

Teachers with low self-efficacy have a negative effect on student performance (Kilday et al., 2016). However, teachers with high self-efficacy positively influence student accomplishments (Mojavezi & Tamiz, 2012). DelGreco et al. (2018) investigated that student inspirations are directly connected with teachers' self-efficacy as it boosts students' motivation to learn. On the other hand, instructors' low self-efficacy causes'drastic decline in students' productivity in classrooms; students face difficulty to complete assigned tasks and become less interactive throughout the coursework (Zee & Koomen, 2016). Low self-efficacy of teachers can create complex challenges and snags for learners to achieve goals. It catastrophically affects students' academic achievements and motivation to learn anywhere globally; the same is the case with Pakistan (Aslam & Ali, 2017). Therefore, this study focuses on exploring the relationship among teachers' self-efficacy beliefs, the use of motivational strategies, self-motivation, and evaluations about commitment to effective teaching.

The concept of self-efficacy is founded in Bandura's social cognitive theory: it is a belief in one's capability to organize and execute the course of action required to produce given attainment (Bandura, 1977, p.3). Other scholars have also attempted to unfold its various aspects; Gibson and Dumbo (1984, p. 569) attributed self-efficacy to "the belief of one's capabilities can bring about desirable changes in students' behaviors and achievements."Tschannen et al. (1998) discussed self-efficacy as "the teachers' belief in their capacity to organize and execute the course of action to accomplish a specific teaching task in a particular context"(pp, 202-248). According to Maddux (2020), it is a perception of what can be done with one's skill.

On the other hand, motivation is an attribute that moves any individual to do something or not to do something (Broussard & Garrison, 2004); many scholars opine that motivation is a general willingness to do something (Deckers, 2018). According to Turner (1995, p. 421) "motivation is voluntary uses of high-level self-regulated learning strategies, such as paying attention, connection, planning, and monitoring." Measuring motivation mostly includes perceptions, beliefs, and actions. Academic motivation is defined as the enjoyment of school learning characterized by a mastery orientation; curiosity; persistence; task-endogeny; and the learning of challenging, complicated, and novel tasks" (Gottfried, 1990).

Extrinsic and intrinsic motivations are the two types of motivation. Extrinsic motivation focuses on "tangible rewards." In contrast, intrinsic motivation is termed as an inward impulse, the "activity running by its drive" (Heckhausen & Heckhausen, 2018), aspiring from insight the intrinsic motivation becomes a valuable source of the task enjoyment and a reward in itself, even in the absence of a tangible reward (Tileston, 2010). This research, however, deals with more intrinsic than extrinsic motivation.

Teachers' perceptions or beliefs about their ability to influence students' motivation are derived from their feelings of competency, knowledge, and motivational techniques (Hardre et al., 2006). Self-motivation (intrinsic motivation) provides a core surface for students' success and productivity (Augustyniak et al.,2016). When teachers successfully motivate students to learn, their self-efficacy, it increases with self-motivation (Radel et al., 2010). Teachers can not show strong professional commitment until they are not clear about their perceptions of motivating students. Teachers' self-motivation has a crucial role in enhancing the overall quality of the education sector. It is correlated with students' learning behavior to achieve their academic goals and perform according to the national and international standards, especially in Pakistan (Sahito & Vaisanen, 2019).

In Pakistan, most students could not meet national and international benchmarks due to specific reasons like old teaching strategies, unimplemented teaching standards, lack of incentives, and lack of self-efficacy beliefs (Shahzad & Naureen, 2017). Teachers are reported to have less confidence, and they hesitate to express the concepts with full potential (Gulistan, Hussain & Mushtaq, 2017). It is a dire need in Pakistan to focus on teachers' motivation because it has a high value in the education sector to enhance students' learning and teaching profession (Khan, 2014).

When the education system fails to develop the students' interest and keenness for learning, it causes students to drop out before completing their education (Afzal et al., 2010).Teachers teaching in schools for ethnic and disadvantaged communities are more disposed towards using additional discipline and control techniques for instructing students (Nakata, 2006), causing low retention and more dropout in such schools (Martin et al., 2017). Such a situation occurs because teachers are provided with little room to innovate and discover their inner abilities to teach effectively (Soleas & Bolden, 2020).

Teachers' self-efficacy is positively correlated with their affective teaching to improve student performance (Honicke & Broadbent, 2016). It is also associated

with cognitive strategies and efforts. Teachers with a higher level of self-efficacy beliefs are extremely motivated towards the tasks assigned for improvement in students' learning. Teachers' self-efficacy beliefs maintain motivation and enhance expertise improvement for the better outcomes of students. Teachers' self-efficacy beliefs do not operate in isolation; they raise their performance and strengthen their job commitment and motivation, which is very important (Hoy et al., 2006; Hoy & Woolfolk, 1990; Bandura, 1993; Tschannen-Moran et al.,1998).

Statement of the Problem

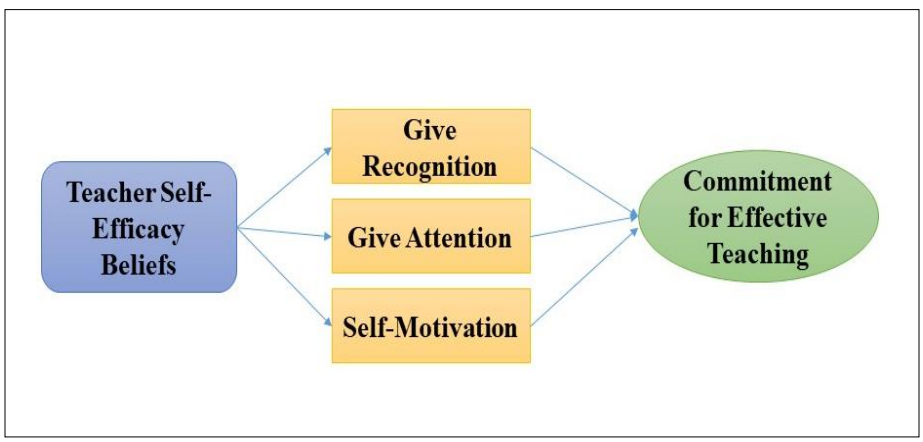
This study was conducted to identify the complex interactive relationships among teachers' self-efficacy, self-motivation, motivational techniques for effective teaching, and professional commitment for effective teaching based on teachers' perceptions.

Objectives of the Study

1. To ascertain the presence of self-efficacy beliefs of the teachers of elementary schools
2. To determine the interactive relationships among teachers' self-efficacy, self-motivation, use of motivational techniques, and professional commitment

Figure 1

Conceptual Framework of the Study



Method

The survey research design was chosen for this study following the positivist paradigm. Data for this study were collected from classroom teachers of the middle

schools established by a private NGO serving the Christian community of lower-income groups. All students and teachers belonged to the same community. The senior management of the NGO granted permission to conduct this research. Census sampling was used to achieve the target sample. Fourteen out of thirty-six Punjab districts have middle schools operated by the said NGO; the data were collected by mailing the printed questionnaires to respective school heads. Ethics of minimal intrusion was followed; a guiding note was attached with a questionnaire explaining the research's intent. Voluntary participation was sought to ensure the anonymity and confidentiality of the data. Five hundred questionnaires were mailed 410 returned, out of which 400 were used for final analysis.

A self-structured questionnaire was developed based on a rigorous review of the previous literature. The selected items were peer-reviewed for face validity and expert reviewed for content validity. The questionnaire, thus constructed, was piloted with 40 teachers from two districts. The reliability alpha score of the pilot was 0.82. The validity and reliability of data ensured that the results could be generalized to the population. The final questionnaire had four sections. Section A gathered teachers' demographic information, such as gender, qualification, and experience; Section B contained the self-efficacy scale. Section C collected responses about the use of 6 motivational strategies; Section D consisted of the Professional Commitment scale. Participants were required to rate their responses on a 7-point Likert Scale ranged between Strongly disagree=1, Disagree=2, Mildly disagree= 3, Neutral=4, Mildly agree=5, Agree=6, and Strongly agree= 7.

Results

Demography

According to table 1, it is concluded that the majority (66%) of the respondents were male, and 33% of teachers were female. The values regarding experience depict that 37% of the teachers had 1-5 years of teaching experience, 23% of the teachers had 6-10 years of teaching experience, 39% had 11 or above years of teaching experience. The figures regarding qualifications show that 65% of the teachers' qualifications hold 16 years of education with M.A./M.Sc degrees. 31% of the teachers' qualifications were B.A./B.Sc., and 4% of the teachers' qualifications were M.Phil./PhD. Moreover, the table informs that 60% of the teachers taught to grade 5, 18% to grade 6, 18% to grade 7, and 11% to grade 8 students. See Table 1 for further details.

Table 1

Demographic Distribution of the Data

Demographic Variables	f	%	M	SD
Gender			1.67	.472
Female	133	33.0		
Male	267	67.0		
Experience			2.03	.878
1-5 Years	149	37.0		
6-10 Years	92	23.0		
11 or Above Years	159	40.0		
Teacher Qualification			1.73	.522
B.A/B.Sc	123	31.0		
M.A/M.Sc	262	65.0		
M.Phil	15	4.0		
Teaching Level			1.74	1.049
Class 5	239	60.0		
Class 6	72	18.0		
class 7	43	11.0		
class 8	46	11.0		
Total	400	100.0		

Factor Analysis

The principal component factor analysis was used to identify and compute scores for data reduction. 5 factors were yielded; each factor identified had a minimum factor loading of 0.5, as shown in Table 3. Moreover, each factor had a reliability score of more than 0.6. See Appendix A.

Table 2

Descriptive Statistics of the Factors

	N	Min	Max	M	SD
Self-efficacy	400	1.25	7.00	5.6750	1.10889
Give Recognition	400	1.00	7.00	6.0300	1.02201
Individual Attention	400	1.67	7.00	6.0525	.98655
Self-motivation	400	1.00	7.00	5.8060	1.03617

	N	Min	Max	M	SD
Professional Commitment	400	1.17	7.00	6.0167	1.07560
Valid N (list-wise)	400				

Pearson Product Moment Correlation

Pearson Correlation formula was applied to the data to find out the relationship between the research variables. Results are shown in Table 4 show a strong and positive correlation among all variables of the study. The findings suggest that the motivation strategy (Recognizing the positive efforts of the students) is most strongly and positively associated with teachers' self-motivation (r= '864; p<.001) and teachers' self-efficacy (r= .802; p<.001) and professional commitment (r= .765; p<.001) is positively correlated with teachers' self-efficacy. Teachers' self-motivation is also strongly and positively correlated with teachers' self-efficacy beliefs (r=.864; p<.001). The 2nd motivational strategy giving individualized attention to students is also strongly and positively related to teachers' self-motivation (r= .764; p<.001) and teachers' commitment to effective teaching (r= .708; p<.001).

Table 3

Pearson Correlation Matrix representing the Relationship among Research Variables

		GR	GIA	SM	SE	PC
1	Give Recognition	1	.779**	.864**	.802**	.765**
2	Give individualized attention		1	.764**	.641**	.708**
3	Self-Motivation			1	.855**	.640**
4	Self-Efficacy				1	.636**
5	Commitment to effective Teaching					1

Multiple Linear Regression

Multiple linear regression was applied using the stepwise method to determine the risk factors associated with teachers' commitment to effective teaching. The two motivational techniques, giving recognition and individual attention to the students, teachers' self-efficacy beliefs, and teachers' self-motivation, were entered as

independent variables. Teachers' commitment to effective teaching was entered as the dependent variable. Four models were, thus, created, which are elaborated in Table 4.

Table 4

Multiple Linear Regression (Commitment for Effective Teaching as the Dependent Variable)

	Model	Beta β	t	Sig.	Tolerance	VIF
1	(Constant)		5.584	.000		
	GR	.765	23.725	.000	1.000	1.000
2	(Constant)		3.199	.001		
	GR	.544	10.984	.000	.392	2.548
	TPI	.284	5.723	.000	.392	2.548
3	(Constant)		3.385	.001		
	GR	.681	10.388	.000	.219	4.562
	TPI	.330	6.443	.000	.360	2.775
	BMY	-.200	-3.142	.002	.233	4.295
4	(Constant)		3.192	.002		
	GR	.620	9.210	.000	.203	4.932
	TPI	.353	6.916	.000	.353	2.829
	BMY	-.336	-4.469	.000	.162	6.157
	SE2	.200	3.295	.001	.249	4.017

Model-1 explains that giving reward singularly explains 76% of the variation in professional commitment ($\beta = 0.765$; $p < 0.000$). Model-2 showed that giving reward and individual attention mutually explains variation in professional commitment ($\beta = 0.544$; $p < 0.000$; $\beta = 0.284$, $p < 0.000$). Model 3 explains that giving reward, individual attention and being personally motivated collectively explains variation in professional commitment ($\beta = 0.681$; $p < 0.000$; $\beta = 0.330$, $p < 0.000$; $\beta = 0.200$, $p < 0.000$). Model 4 explains that giving reward, individual attention, being personally motivated and self-efficacy to motivate students collectively explains variation in professional commitment ($\beta = 0.620$; $p < 0.000$; $\beta = 0.353$, $p < 0.000$; $\beta = 0.336$, $p < 0.000$; $\beta = 0.200$, $p < 0.000$).

Discussion

The main objective of the study was to investigate teachers' perceptions about the use of motivational strategies and effective teaching; teachers' self-efficacy and beliefs, teachers' self-motivation were considered the source of effective teaching, when used with sensible use of motivational strategies.

The data analysis of the study was based on the following four factors: motivational techniques, self-efficacy beliefs, self-motivation, and professional commitment. The descriptive statistics of motivational strategies for effective teaching informed that teachers use individualized attention for effective teaching and motivate them to learn. The motivational strategy of individualized attention includes the following items: Special attention is given to each unmotivated student; to know the reasons for students' low motivation and to set up parent-teacher collaboration for improvement in students' performance.

The findings of the current study show that there is a strong correlation in the data set. The results of this study reiterate the general claim that the use of motivational strategies shall enhance teachers' self-motivation, teachers' self-efficacy, and teachers' commitment to effective teaching (Moskovsky et al.,2013). Other studies also ascertained that using motivational strategies with students "at risk," especially those belonging to ethnic minorities' underprivileged motivate both students and teachers to create an effective teaching and learning environment (Guilloteaux & Dornyei, 2008; Kazakova, 2019).

As expected, high self-efficacy beliefs play a substantial role in motivating students to learn (Domenech, Abellan & Gomez, 2017). Data analysis shows that teachers with high self-efficacy beliefs successfully inspire students to accomplish learning goals. These results corroborate previous research findings, such as (Caprara et al., 2006; Goddard et al., 2000; Mojavez & Tamiz, 2012; Karimi & Hosseini, 2019).

Finally, this study's result reflected that motivational strategies increase the level of teachers' self-motivation; and high self-motivation strengthens teachers' professional commitment. Hence, the findings of the study prove that when teachers use motivational techniques, it increases their self-motivation, which enhances their professional commitment, and that contributes to students' accomplishments (Inayatullah & Jehangir, 2012; Moskovsky et al., 2013; Nyakongo, 2015).

Conclusions

Finally, this study's result reflected that motivational strategies increase the level of teachers' self-motivation; and high self-motivation strengthens teachers' professional commitment. Giving students' recognition for their positive behaviors and achievements in the classroom is the most powerful tool a teacher can use with children from disadvantaged ethnic communities. Moreover, giving attention to students' individualized needs also acts as a powerful motivator, resulting in a pleasant classroom environment. Moreover, significant correlation values among motivational strategies, teachers' self-efficacy, self-motivation, and job commitment were concluded positively affecting effective teaching and students' motivation to learn.

Implications

Motivation is a paramount force for students to achieve their set of learning goals (Ozen, 2017), and to make it possible, motivational activities play a vital role (Anwer, 2019). How to motivate a student in the classroom to learn has been a challenge to answer? In Pakistan, we do have mastery teachers, but they lack to motivate students to learn. Therefore, it is necessary to know the relationship of motivational strategies with effective teaching, teachers' self-efficacy, teacher's self-motivation, and professional commitment to motivating students. Hence, it is a dire need to introduce motivational strategies to educate and train our teachers in Pakistan to motivate students to learn as motivational techniques significantly impact students' performances and academic achievements (Saleem & Ghani, 2019). Also, it is universal demand as well to motivate students to learn. Teachers should know that if they show motivational behavior in the classroom, they will motivate to learn as their motivation increases under the influence of teachers' motivation (Hardre & Hennessey, 2013).

Teachers must use motivational strategies as tools for effective teaching to motivate students to achieve their learning goals. Teachers should redesign their motivational strategies for students' accomplishments. They should know how to diagnose students' needs to motivate them, as it is a crucial teaching objective. With the use of motivational techniques, teachers can confront the challenges they face to motivate students. Also, with motivational strategies, teachers' self-efficacy will enhance, which will increase their job commitments.

Policymakers may improve policies by inculcating the finding of the current study to increase the quality of education. The education department can mechanize a committee to train teachers and educate them about motivational strategies to

motivate students to learn the education sector's dire need. Teachers are the key actors to motivate students to learn; therefore, the school principal can act as a coach or mentor for teachers; thus, teachers shall be equipped to use the motivational strategies to increase their ' self-motivation and professional commitment.

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Appendix A

The Principal Component Factor Analysis

Sr. #	*Factors*	*Items*	*Factor loadings*	*Cronbach's Alpha*
1	Self-efficacy	I feel confident that I can motivate students in my class who are unmotivated.	.690	.884
		If students are not initially motivated, I can usually improve their motivation with the strategies that I use.	.756	
		Even though motivating some students is challenging, I can almost always get them motivated.	.769	
		Motivating students is something that I have been able to do effectively, even for the least motivated students.	.764	
2	Self-motivation	I am highly motivated that is why my students are highly motivated	.766	.881
		I inspire my students to work hard	.614	
		I try to serve my students as a role model for my students	.746	
		My students aspire to follow me	.837	
		I teach my students enthusiastically	.811	
3	Give Recognition	I make sure that students grades reflect their efforts	.676	.889
		I monitor student progress and celebrate their achievements	.796	
		I try to give my students the best available knowledge.	.763	

		I give personal attention to develop students' skills	.807	
4	Individual Attention	I give special attention to each unmotivated student	.736	.870
		I try to know the reasons for students' low motivation	.784	
		I try to set up parent-teacher collaboration for improvement in student performance	.790	
5	Professional Commitment	I like teaching	.722	.898
		I will make my career in teaching	.733	
		I advise my friends and family to join the teaching profession	.481	
		I will improve my practice to meet classroom needs	.732	
		I will try my best to improve professionalism among teachers	.673	
		Teaching is a sacred profession for me	.614	