



**Relationship between Functional Competence, Intrinsic Motivation, and Work Engagement: An Evidence from Private Schools in Pakistan.**

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**Abstract**

The objective of the study was to examine the relationship between self-efficacy and intrinsic motivation, functional competencies, and intrinsic motivation. Another objective was to assess the mediating effect of work engagement on the hypothesized relationship. The research used a quantitative approach and used a structured questionnaire to collect the data. We used random sampling and 189 teachers working in high- to middle-level private secondary schools in Lahore Division, returned complete and usable questionnaires. The results indicated that self-efficacy and functional competencies have a significant impact on the intrinsic motivation of teachers. The study revealed that work engagement acts as a mediator variable in the relationship between self-efficacy and intrinsic motivation, functional competence, and intrinsic motivation. The study suggests school management is used a performance framework. Use work engagement through enhancement of self-efficacy of teachers and providing opportunities to develop functional competencies. The study contributes to the literature by interpreting self-determination and the theory of causal effects by taking performance-related

behavioral characteristics into account. For limitations, this research does not include control variables such as educational and vocational qualifications, experience, and gender. Future research may take these factors into account in a better Elaborative perspective.

**Keywords:** Professional Competence; Self-Efficacy; Work Engagement; Intrinsic Motivation; Private Schools; Pakistani Education System

## 1. Introduction

The intrinsic motivations of teachers include their passion for teaching, personal satisfaction, and commitment to student success. A salary, benefits, or recognition can extrinsically motivate an employee. The combination of both motivation types can enhance teacher performance and job satisfaction when they are balanced. Ryan and Deci (2020) emphasized on the importance of intrinsic motivation for long-term job satisfaction, unlike Alves et al. (2021) who note that extrinsic rewards can boost short-term performance. It is possible to engage and motivate teachers more effectively by combining both motivational strategies. Studies have shown that teachers are more important than school levels in determining student outcomes (Muijs et al., 2014). Even though quality teachers are crucial to student success, there are no common characteristics of teachers (Scheerens & Blömeke, 2016). Traditionally, qualifications and experience were important factors. Additionally, there has been research showing that self-efficacy, locus of control, and verbal intelligence (Scheerens, 2016) are important for teachers. Hendriks & Steen, 2012; Huber & Muijs, 2010) show that classroom instruction, teacher competencies, and students' knowledge are more important. This viewpoint has a rationale: 1) teacher efficacy positively relates to student achievement; 2) teachers' functional competencies motivate them to use the best practices to improve students' learning (Moolenaar, Slegers, & Daly, 2012; Fancera & Bliss, 2011; Guo, pasta, Justice, & Kaderavek, 2010).

The number of private schools in Pakistan is approximately 38% in 2023, providing education for 42% of the 47.5 million children attending schools (Pakistan Coalition for Education, 2023; Sardar Ali, 2023; Razzaque, 2023). Tanya Khan (2005) categorizes Pakistani private schools into following three groups.

*Elite schools:* These are expensive English medium schools usually owned by individuals, societies, or corporations. In comparison with other schools in the area, they offer high-quality education, as well as qualified staff and adequate facilities. Teachers at these schools receive better salaries and provide education using modern methodologies.

*High to medium schools:*

Among private schools, these are mostly privately owned. The majority of these schools are chain schools that provide quality education at relatively moderate fees, and are typically centrally managed and located throughout the country.

*Low-income schools:*

Students usually reside in overcrowded buildings with poor ventilation and other campus-related facilities in urban and peri-urban settings. Their aim is to provide education to families in the lower middle class and the lower class. Salaries are low, most employees are untrained, and teachers are overworked.

Asalam (2009) attributes the primary difference in quality between government and private schools to more effective monitoring and greater autonomy. Due to economic output and administrative and supervision differences between independent and government schools, Pakistan's education system has significant disparities. Days-Ashley et al. (2014) argue that private schools generally deliver a better education than government schools.

As part of Pakistan's educational system, teachers' training does not emphasize creativity in the teaching of academics and sociocultural development (Kaplan, 2019). Comparatively to public schools or elite schools, private schools provide insufficient teacher training and pay teachers low salaries. According to Ali & Khan (2018), many Islamabad private schools hire new graduates and offer low wages, as well as lack of government support, slow promotions, and lack of incentives. Teachers at non-elite private schools with low fees earn low salaries; 29% of them consider their jobs a temporary arrangement until they land a job with a government institution. Personalized consideration, intellectual stimulation, and inspiring motivation have been found to be positively related to job satisfaction and commitment to performance (Torlak & Kuzey, 2019). In most studies related to the education system in Pakistan, either performance standards of public and private schools are compared or gender differences are analyzed, or perception studies are conducted on teachers' performance. There are major challenges in Pakistani private education, despite societal approval, such as non-compliance with minimum wages and institutional support for performance improvement. There are also issues such as lack of service benefits, inadequate salary scales, and unpaid summer holidays (Siddique, 2011). However, despite this impurity, average private schools produce better quality education and parents trust them more than government schools: the demand for private schools is increasing due to improvements in service and quality of education. Despite this equivalence, average private schools produce better quality, and parents trust them more than government schools: the demand for private schools is increasing due to parents' trust in service and quality

of education compared to public schools. Therefore, this study explores the phenomenon that motivates teachers in private schools to improve their performance. Specifically, the study seeks to examine the impact of teachers' self-efficacy and functional competencies on intrinsic motivation, with the mediating effect of engagement in these relationships.

## **2. Literature Review**

### *2.1 Self-efficacy*

The term self-efficacy stems from social cognitive theory (Bandura, 1977, 1986, 1997); which refers to the degree of self-belief of a person related to mobilization of cognitive resources to function properly and become successful in task performance. An individual judge their ability for successful organizations and the execution of a set of behaviors that will guide them to achieve desired outcomes. Individuals' feelings and abilities may differ when performing work under different conditions and circumstances. Self-efficacy refers to specific future activities such as self-perceived personal knowledge, abilities, and control define a person's self-efficacy in the work environment. Individuals' self-efficacy affects their persistence, goal setting, and academic performance. Greater self-efficacy leads to higher goals and commitment to them (Alhadabi & Karpinski, 2020). The degree of self-efficacy affects not only the setting of goals but also the strategies used to attain those goals (Feng & Papi, 2020). Additionally, self-efficacy is closely related to perceived support and motivational intensity. It promotes performance by fostering autonomy and competence (Wang et al., 2021). There is a relationship between self-efficacy and teachers' performance in educational contexts (Vansteenkiste et al., 2020).

Self-efficacy helps teachers direct students towards academic and developmental success based on their level of proficiency. Professional self-efficacy consists of two aspects: self-belief in the ability of the profession to affect others and self-efficacy in achieving professional goals (Cherniss, 1993). Teachers who are self-efficacious believe and trust themselves and have high expectations of their students. Cambridge University Faculty of Education (2012) found that teachers who felt self-efficacious were more creative, committed to achieving performance goals, and focused on professional work. Studies have found that teacher self-efficacy correlates positively with student achievement, motivation, teaching practices, teaching desire, commitment, and job satisfaction (Mojavezi and Tamiz, 2012; OECD, 2014 ; Schleicher, 2014; Cambridge Faculty of Education, 2012). There is a direct correlation between principals' instructional behaviors and teachers' self-efficacy (Zdemir, Sahin & Ztürk, 2020). A teacher's self-efficacy level has a direct bearing on school success through student performance outcomes. Teachers with high self-efficacy are more likely to employ effective teaching strategies, provide effective classroom management, and increased success rate of students (Dibapile, 2012).

## *2.2 Functional competencies and intrinsic motivation*

Teaching competence means encouraging students to learn, believing they can all learn, and constantly improving their practice to ensure quality learning (National Institute of Education, 2009). Competencies related to teaching, learning, managing learning processes, and adjusting to environmental changes determine functional competence (Kaiser, 2017). Professional motivation and content knowledge ensure effective teaching, learning processes, and student achievement (Malaysian Education Ministry, 2014). Teacher competence consists of various elements that contribute to their performance, such as skills, attitudes, values, and ethics (Binkley et al., 2012; European Commission, 2018). Caena (2014) defined teacher proficiency as a contextual concept that depends on the context and learning environment. According to Selvi (2010), field, curriculum, and emotional competencies are key functional competencies for teachers. Teachers' capacity to teach and learn, as well as the assessment of relevant sources, determines their functional competence (Ismail et al., 2020). Teacher competence is reflected in the knowledge, skills, and characteristics they use to perform their duties (Kaiser, 2017). Competence refers to the combination of knowledge, skills, and personal characteristics required for job or task performance (European Commission, 2018). Increasing functional competencies create synergies because they mutually reinforce each other (Vansteenkiste et al., 2018). Competence is composed of knowledge, attitude, and skills (Jang et al., 2016). Assigning tasks based on certain characteristics is a competency-based approach. Competence allows individuals to integrate existing knowledge and skills into more efficient tasks. Motivation and engagement in teaching stem from motivations, traits, roles, skills, and knowledge. Moreover, the school's learning climate and instructional leadership (Ismail et al., 2020) enhance teachers' functional competency. Increasing teachers' intrinsic motivation and commitment depends on their ability to respond to situational demands.

## *2.3 Teachers' engagement*

Teachers' engagement results in greater satisfaction, less burnout, and better test scores, according to growing evidence. A supportive leadership environment, collaborative work environments, and professional development are key factors in engaging employees. According to Johnson et al. (2022), teachers who work within supportive school cultures incorporate innovative teaching practices more often. To maintain high levels of engagement, Smith and Brown (2023) recommend professional development.

A person's level of effort, dedication, and absorption determines his or her work engagement and is an indicator of psychological fulfillment (Schaufeli & Bakker, 2010). Among other things, teacher engagement affects performance, organizational commitment, problem-solving skills, and job satisfaction (Hakanen et al., 2006; Field and Buitendach, 2012). Skaalvik &

Skaalvik (2014) found, teacher efficacy and engagement are positively correlated, while Hoigaard et al. (2012) found that work engagement and teacher efficacy are significantly correlated. When employees have high levels of commitment to their organizations, they have a positive experience and experience more attachment to the organization (Simbula & Guglielmi, 2013; Mache et al., 2014).

A satisfied employee will improve their functional skills in order to achieve success in their work. Educators need support and development to excel and succeed in the classroom. An engaged teacher strives to provide quality education by seeking out creative ideas and using the most effective teaching practices. Monitoring and providing feedback to students is an integral part of an engaged teacher's practice.

#### *2.4 Theoretical background and hypotheses*

The self-determination theory (Deci & Ryan 1985; Ryan & Deci, 2000) is the principal theory governing teachers' intrinsic and extrinsic motivation. Three basic psychological needs drive human motivation: autonomy, competence, and relatedness. People engage in activities for intrinsic reasons, such as enjoyment, while those motivated by rewards or outcomes are motivated by extrinsic reasons. Based on SDT, the quality of motivation (intrinsic versus extrinsic) depends on the environment's ability to meet these basic psychological needs. It stresses the importance of understanding oneself, fulfilling one's needs, interests, and desires, and connecting with others and the environment to achieve self-determination. Self-determination theory suggests that individuals who receive support for their autonomy, competence, and relatedness needs will engage in intrinsic motivation and engagement.

Using theoretical insights and empirical evidence, this study hypothesizes that self-efficacy and engagement are positively correlated, and that engagement mediates the association. Therefore, we propose the following hypothesis.

*Hypothesis (1): Teachers' self-efficacy influences functional competencies.*

*Hypothesis (2): Functional competencies influence intrinsic motivation.*

*Hypothesis (3): Engagement mediates the relationship between functional competencies and intrinsic motivation.*

*Hypothesis (4): Teachers' engagement mediates the relationship between self-efficacy and functional competencies.*

### **3. Methodology**

Understanding individual subjective meanings and experiences through an interpretivist approach, the study utilized a quantitative method. The quantitative method was used to

understand cause and effect and to gather information about teachers in private secondary schools in Lahore Division. Through the quantitative methods, it is possible to empirically test relationships (Creswell & Creswell, 2018), as well as provide robust evidence regarding the interplay between variables in the study. To collect data, medium-to-low-level schools were randomly sampled. Based on previous research, measurement items were adapted for data collection. A structured questionnaire measuring seven-point Likert scale items was distributed physically (i.e., 20 to each school) to two principal offices. From 440 questionnaires with the option of a voluntary response, 189 were returned, resulting in a 43 percent response rate. The sample therefore included 189 teachers working in private education institutions. According to the demographic profile of participants, there were 80 (42%) males and 109 (58%) females. Among them, 62 (33%) held bachelor's degrees and 127 (67%) held master's degrees. Regarding professional qualifications, 97 teachers (51%) did not mention any professional teaching certification, and the remaining have a Bachelor's or other degree. Figure 1 explains the study's conceptual model.

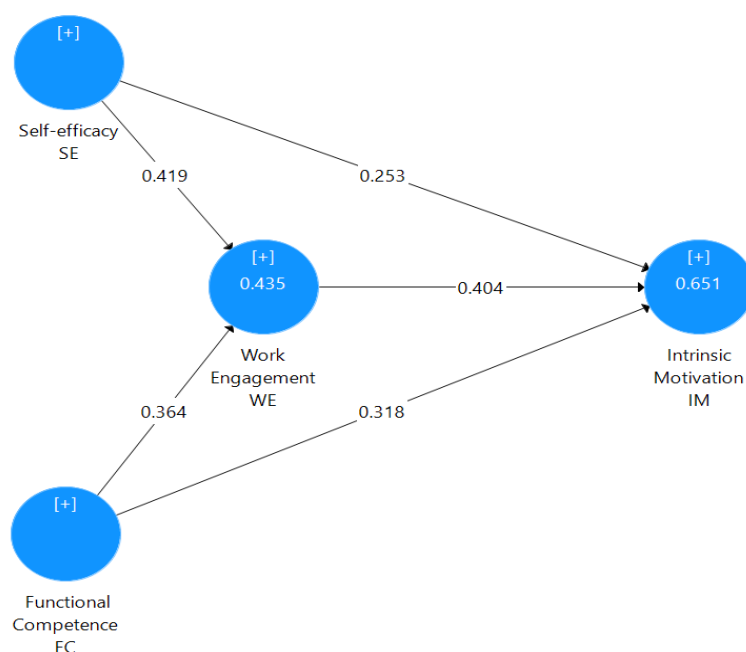


Figure 1: Conceptual Model

#### 4. Measurement Model Assessment

As shown in table 1 the relevant indicators successfully indicated indicators' reliability, convergent validity, and internal consistency. *All factors loading greater than 0.708 indicated indicators' reliability; Cronbach's Alpha > 0.70 and rho\_A lie between CR and C which indicated indicators' reliability* (Dijkstra and Henseler, 2015; Hair *et al.*, 2019). Average variance

explained (AVE) >0.05 indicates convergent validity and composite reliability values CR >0.70 indicate internal consistency (Hair et al., 2019).

Table 1: Construct Validity

Construct	Item	Outer loading	Cronbach's Alpha	rho_A	CR	(AVE)
Functional Competence (FC)	fc1	0.863	0.841	0.859	0.903	0.757
	fc2	0.914				
	fc3	0.831				
Intrinsic Motivation (IM)	im1	0.832	0.812	0.815	0.877	0.640
	im2	0.818				
	im3	0.808				
	im4	0.740				
Self-Efficacy (SE)	se1	0.722	0.770	0.796	0.850	0.587
	se2	0.808				
	se3	0.721				
	se4	0.808				
Work Engagement (WE)	we1	0.813	0.795	0.809	0.866	0.620
	we2	0.689				
	we3	0.804				
	we4	0.833				

#### 4.1 Discriminant Validity

The heterotrait-monotrait ratio of correlations (HTMT) indicated that measures of constructs are not highly related to each other. HTMT values (table 2) are within the maximum threshold limit of 0.90 (Henseler, Ringle and Sarstedt, 2015) that indicates discriminant validity

Table 2: HTMT Criterion

HTMT Criterion	SE	FC	IM	WE
SE				
FC	0.480			
IM	0.760	0.765		
WE	0.683	0.645	0.881	

Factor loadings for constructing items are higher in each column and row table which indicated subjective independence (Chin, 1998) for the absence of multicollinearity among the latent variables.

Table 3: Cross Loadings

Items	SE	FC	IM	WE
fc1	0.417	<b>0.863</b>	0.596	0.549
fc2	0.414	<b>0.914</b>	0.599	0.472
fc3	0.234	<b>0.831</b>	0.459	0.360
im1	0.523	0.555	<b>0.832</b>	0.650



im2	0.464	0.519	<b>0.818</b>	0.519
im3	0.475	0.505	<b>0.808</b>	0.547
im4	0.508	0.471	<b>0.740</b>	0.577
se1	<b>0.722</b>	0.166	0.388	0.301
se2	<b>0.808</b>	0.372	0.527	0.491
se3	<b>0.721</b>	0.274	0.401	0.297
se4	<b>0.808</b>	0.412	0.537	0.577
we1	0.493	0.411	0.597	0.813
we2	0.325	0.374	0.414	<b>0.689</b>
we3	0.430	0.486	0.624	<b>0.804</b>
we4	0.527	0.423	0.602	<b>0.833</b>

### 5. Structural Model Assessment

Using bootstrapping as 5000 samples, (Preacher and Hayes, 2008) the outcomes of statistical analysis were used for hypothesis testing. The hypothesized relationship between SE and IM ( $\beta = 0.253$ ,  $t\text{-value} = 5.265$ ,  $p < 0.05$ ) was significant and supported H1; the relationship between FC and IM ( $\beta = 0.318$ ,  $t\text{-value} = 6.378$ ,  $p < 0.05$ ) was significant and supported H2. Other relationship SE and WE ( $\beta = 0.419$ ,  $t\text{-value} = 8.811$ ,  $p < 0.05$ ); FC and WE ( $\beta = 0.318$ ,  $t\text{-value} = 6.179$ ,  $p < 0.05$ ) were positive and significant.

#### Mediation Analysis

The indirect effect (FC -> WE -> IM:  $\beta=0.147$ ,  $t= 4.649$ ,  $p<0.05$ ); (SE -> WE -> IM:  $\beta=0.169$ ,  $t= 5.501$ ,  $p<0.05$ ) and no zero falling between LB and UB of Bca CI indicated a partial mediation (Zhao, Lynch Jr and Chen, 2010) of WE.

Table 2: Analysis of path co-efficient

Path	Path Coefficient	SE	t-statistics	p-values	Bca CI
SE -> IM	0.253	0.048	5.265	0.000	[0.154, 0.343]
SE -> WE	0.419	0.048	8.811	0.000	[0.314, 0.505]
FC -> IM	0.318	0.050	6.378	0.000	[0.214, 0.410]
FC -> WE	0.364	0.059	6.179	0.000	[0.243, 0.471]
WE -> IM	0.404	0.059	6.827	0.000	[0.286,0.520]
<i>Mediation analysis</i>					
FC -> WE -> IM	0.147	0.032	4.649	0.000	[0.092, 0.2171]
SE -> WE -> IM	0.169	0.031	5.501	0.000	[0.114, 0.2337]

#### 5.1 Predictive Quality

Hair et al. (2018) criteria of  $Q^2$  value explained the medium predictive quality of WE and large for WE predictive quality (i.e.  $Q^2 > =0$  small, 0.25 medium and 0.5 large).  $R^2$  values (i.e., WE= 0.431, IM =0.647) indicated a satisfactory and good 43.1 % and 64.7 % variance (Henseler, Ringle and Sarstedt, 2015; Sarstedt, Ringle and Hair, 2017) by WE and IM respectively. Cohen(1988) criteria for  $f^2$  ( $f^2 > 0.02$  small, 0.15 medium, and 0.35 large) determined the effect size as medium to large.

Table 3: Model analysis

Endogenous Latent Constructs	R <sup>2</sup>	R <sup>2</sup> Adjusted	Q <sup>2</sup>	Q <sup>2</sup> _predict	Effect Size	
					Relationship	f <sup>2</sup>
WE	0.435	0.431	0.261	0.421	SE>WE	0.256
					FC>WE	0.193
IM	0.651	0.647	0.407	0.548	SE>IM	0.111
					FC>IM	0.190
					WE>IM	0.264

Q<sup>2</sup>: predictive relevance; R<sup>2</sup>: Coefficient of determination; f<sup>2</sup>: effect size

### 5.2 Predictive Relevance

Comparing RMSE values of PLS (Table 6) with the naïve LM indicated Q<sup>2</sup> \_predict > 0 for all items and the majority RMSE(LM) are larger than RSME (PLS-SEM) (Shmueli *et al.*, 2019) indicated a moderate predictive power.

Table 4: PLS predict assessment of manifest variables

	RMSE (PLS)	Q <sup>2</sup> _predict	RMSE (LM)	Q <sup>2</sup> _predict	PLS_RMSE-LM_RMSE
im1	1.172	0.400	1.179	0.392	-0.008
im3	1.560	0.330	1.600	0.296	-0.040
im2	1.479	0.333	1.513	0.302	-0.033
im4	1.252	0.328	1.278	0.300	-0.026
we4	1.275	0.311	1.242	0.347	0.033
we1	1.180	0.281	1.177	0.285	0.003
we2	1.229	0.160	1.250	0.130	-0.021
we3	1.228	0.281	1.233	0.275	-0.006

## 6. Discussion

The study explored the underlying mechanism and conditions that why teachers at private schools perform better despite low salaries, training, and rewards. The emphasis of the study was on explaining the factors of intrinsic motivation of teachers at private secondary schools in Pakistan, which leads them to better performance according to evidence found in the relevant literature. More specifically, this study represents one of the first attempts to examine (1) the influence of functional competencies on intrinsic motivation; (2) the influence of self-efficacy on intrinsic motivation; (3) the mediating effects of work engaged in these relationships. The results showed that functional competencies significantly affect intrinsic motivation and self-efficacy affects intrinsic motivation. As expected, work engagement mediates the relationship between functional competencies and intrinsic motivation. Moreover, work engagement mediates the relationship between self-efficacy and intrinsic motivation. The mediating role of work engagement indicating that this variable is an important mechanism linking self-efficacy and intrinsic motivation, functional competencies, and intrinsic motivation.

Also, findings reveal that functional competencies and self-efficacy have a positive impact on work engagement. Thereby, work engagement as a mediator variable enhances the relationship

between self-efficacy and intrinsic motivation, functional competencies, and intrinsic motivation. The results are consistent with the studies discussed in the literature review and support the theoretical framework. The findings reinforce the idea that private schools can enhance self-efficacy by providing opportunities for mastery and experience; social modeling; and management support; which also adds to functional competencies. The most important guidance is regarding work engagement: engaged teachers, in turn, are more willing to perform above and beyond the role prescriptions. Interestingly, the results indicate a positive relationship of self-efficacy with work engagement as inner characteristics of personality where teachers are the object of their reflective consciousness. Finally, the outcomes of the study reveal the importance of work engagement of teachers for better outcomes of their performance through intrinsic motivation.

### *6.1 Theoretical implications*

This study contributes to the literature in several respects. First, this explores the underlying mechanism of behavioral characteristics of teachers that links them with intrinsic motivation. Second, the study provides a conceptualization of performance that how the interaction of personal characteristics of teachers with a work engagement framework of institutions supports intrinsic motivation. Implicitly, the study emphasizes on review of theoretical modeling of institutions' performance management. The study extends self-determination theory (Ryan and Deci 2000) and theory of causal orientation (Deci and Ryan, 2014) in conjunction with functional competencies and self-efficacy. The study also explores the conditions which can provide guidelines for formulating an effective performance management framework in the context of causal orientations of individuals.

### *6.2 Practical implications*

The study provides several management implications and offers school managers to develop and implement an effective performance management system that should be capable of utilizing causal orientations of teachers. First, the study indicates that providing the opportunities of mastering experiences will increase their motivation and work engagement. Second, the skill-building of teachers as a part of performance management is a must for institutional effectiveness. Opportunities for enhancing knowledge and skills provided with the scope of mastering the experiences will add to work engagement, which in turn, will lead to school effectiveness. Despite the equivalence of low-medium fee level schools with the elite schools in terms of salaries and other incentives, they can utilize the potential of teachers for school effectiveness through an efficient performance planning framework. Third, the study indicates the importance of the leadership role of school management to engage teachers in the work using their causal orientation.

### 6.3 Limitations and suggestions for future studies

The research has some limitations as well. The sample of the study covers a specific area (i.e., Lahore Division) which is a small segment of the institutional population of Pakistan. Therefore, the generalization of the results to the entire educational landscape of the country would not be justifiable because urban and rural parity is one of the main distinguishing factors of schools' performance. Second, the study did not account for the experience level; educational and professional qualification as control variables to examine the impact of self-efficacy and functional competencies on intrinsic motivation. Therefore, future research may adopt a dynamic perspective of intrinsic motivation based on self-efficacy and functional competencies keeping into account other variables (e.g., educational, and professional qualification, experience in the field, and gender differences). Despite its limitations, the study reveals why and how teachers in private secondary schools perform better.

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