

Teacher Self-Efficacy and Psychology as a Mediator Between the Role of Professional Learning Leaders and the Professional Learning of Boarding School Teachers in the South Zone

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Abstract : One of the focuses of Malaysia Education Blueprint (2013-2025) is continuous professional learning to enhance the quality of the teaching profession. With this intention, the school principal needs to carry out their role as a learning leader to provide focus on learning and ensure teachers and students receive new knowledge and skills in line with the education of today. Professional learning for teachers is activities that are essential to enhance knowledge, skills, and values to improve the teachers' teaching and learning practices. This research attempted to determine the correlation between the school principals' role as professional learning leaders, teachers' sense of self-efficacy, and the teachers' professional learning at South Malaysia's boarding schools. Additionally, this research identifies the teacher's self-efficacy as a mediator between the school principals' role as professional learning leaders and the professional learning of teachers at South Malaysia's boarding schools. This research is quantitative-based with a survey method of 1,033 respondents and 285 sample teachers. The Statistical Package for the Social Sciences (SPSS) was used to analyse the data that was obtained. The research questions and hypotheses have been answered using descriptive and inferential analysis. The result shows a significant correlation between principals' role as professional learning leaders, teachers' self-efficacy, and teachers' professional learning. Furthermore, teachers' self-efficacy is a mediator between the principals' role as professional learning leaders and the professional learning of teachers at South Malaysia's boarding schools. The results of this study have implications for how self-efficacy in teachers functions as a mediator between the principal's position as a learning leader and the teachers' professional learning. This indicates that enhancing the principal's leadership responsibilities will boost teachers' self-efficacy, which will ultimately help to enhance teachers' professional development.

Keywords: Teachers' Self-efficacy, Professional Learning Leaders, and Teacher's Professional Learning

1. Introduction

Learning is a vital process for every individual because, through the learning process, a person will acquire the knowledge and skills needed to deal with life's challenges. In addition, through learning an individual can improve their ability and competence to make good decisions, effectively communicate, adapt to changes, and improve the whole quality of life. Rick Warren explained the importance of learning for leaders in his book; "the moment you stop learning is the moment you stop leading" which explains that to be an effective leader, one must always learn to develop their own professionalism so that their ideas and practices are always updated. Therefore, school leaders should have an inquisitive attitude, be open-minded, and always be ready to accept the

changes to continue leading and driving the organization toward excellence. Lifelong learning needs to be made a culture by all school members, especially teachers, and students.

The Final Report(Beauchamp et al., 2014)stated how teachers explain their effectiveness concerning professional learning. Furthermore, professional learning is beneficial for teacher training and affects teacher self-efficacy. However, they stated that through this process, changes occur when diverse professional learning in various fields shaped them to master more deeply and enhance their confidence to try new strategies such as collaboration between colleagues. Cooperation among teachers enhances the knowledge gained from experienced teachers and allows them to question and strengthen knowledge, skills, and understanding of concepts in the curriculum because they can collaborate with those who teach the same subject. Therefore, self-efficacy is crucial for teachers to equip themselves with various knowledge related to curriculum, pedagogy, and information technology to meet the current educational needs.

2. Research Background

According toAdams (2017),the term "continuous professional learning" is used to describe teacher professional development. The accessibility of the teacher's professional learning can be linked to open practice sharing, collaborating, and critically reflecting on their instructional practice. In addition, teacher professional learning is ongoing learning while working through activities that constantly update, deepen, and expand knowledge and skills (Liu & Hallinger, 2018).The teacher's professional learning can be concluded as a learning activity that involves knowledge and practice sharing either individually or collaboratively, which is done continuously to meet the needs of daily teaching tasks.

Teacher professional learning is vital to improve the knowledge, skills, and expertise to produce quality teaching to support student learning and achievement.In addition, through professional learning, support is provided to teachers to keep up with the latest developments related to research and best practices as well as the latest technology appropriate to the ever-changing needs of students. This is in line with the views of Parise& Spillane (2010)that teachers' professional learning gets growing recognitionof the importance to raise teacher standards and ensure unceasing school improvement.

Additionally, studies related to school reform prove how important continuous professional learning is because of the shifting target, curriculum, and instructional strategies (Zheng et al., 2017). This is also the focus of researchers from the Chinese community such asHallinger et al. (2017)andZheng et al. (2017)as they are aware of the importance of teacher professional development for school improvement. These studies confirm the importance of professional learning for teachers, especially concerning teaching and learning as well as school improvement.

One of the most crucial elements influencing teaching improvement and ongoing transformation in schools is professional learning. Since professional learning is pivotal to teachers; school leaders, especially principals should pay serious attention to professional learning such as encouraging, motivating, and supporting teachers' professional learning.According to(M. Mansor& Mat Norwani, 2017)states that school leaders isa vital role in shifting the paradigm of collaborative teacher learning to improve teacher professional learning. These findings show how crucial the principal's leadership is to teachers' professional learning.

Next, teacher self-efficacy is crucial to teachers and is closely linked to teacher professional learning. Prior research demonstrates a favorable association and a direct impact of self-efficacy on teachers' professional development (Merwe, 2016). When faced with various obstacles, self-efficacy determines the number of professional learning programs teachers participate in and do continuously (Bandura, 1977).This explains why instructors with high self-efficacy are more capable of taking on new tasks and participating in professional development activities than teachers with low self-efficacy.Therefore, in order to encourage teachers to participate in professional development activities that improve their capacity and competence to carry out teaching tasks successfully, it is vital to emphasise teachers' sense of efficacy.

3. Literature Review

Principals are not only organizational managers but also learning leaders, specifically focusing on teacher learning. Jackson (2014) found that principals have a role to analyze data to make decisions for organizational excellence, develop teachers as leaders, and monitor the development of teachers and students. To realize that, DuFour (2015) suggests that principals need to allocate a lot of time to focus on teacher and student learning. They should focus on teacher motivation by supporting and maintaining teachers' professional learning. However, according to Balyer et al. (2015), principals do not perform this role well because they have administrative tasks even though they are aware of the importance of professional learning communities. Furthermore, principals explained that they did not have the time, power, and authority to focus on teacher professional development.

Nearly 50 years of research on educational management and leadership have led researchers to the conclusion that principals, who hold the highest position in schools, can have an enormous influence on teachers' and students' learning. Beside that, the impact of school leadership is then examined in various recent studies to determine how school leaders affect student learning and school betterment (Zheng et al., 2017). Therefore, the principal's leadership affects the teacher's learning and will indirectly affect the student's learning. Although previous studies have proven that school leaders play an important role in influencing teachers' professional learning, there are still various leadership obstacles related to self-efficacy and teachers' professional learning.

Keong et al. (2018) found leadership and administration obstacles faced by High-Performance School (HPS) teachers in Malaysia. Teachers were found to be lacking in several aspects including open-mindedness, motivation, knowledge sharing, and collaboration practice. Therefore, the teacher's actions will affect their ability to perform teaching tasks. Subsequently, Soto, M. and Rojas (2019) found that teachers with high levels of self-efficacy are better able to manage their classrooms by implementing innovative teaching techniques, which has an impact on their job fulfillment. Therefore, self-efficacy is vital for teachers because it can determine their participation in professional learning activities and subsequently affect their instruction.

Moreover, Merwe (2016) found that collective leadership practices affect educator participation in teacher professional learning activities through information sharing and receiving feedback, thereby promoting teacher involvement in learning activities as he studies teacher professional learning, cooperative leadership procedures, and self-efficacy among teachers. This study proves that teacher self-efficacy is a mediator in improving collective leadership practices for teachers' professional learning. Additionally, this study expands the literature studies that prove school leaders contribute to the professional education of teachers. Furthermore, Liu & Hallinger (2018) confirm that school leaders who take the initiative and are encouraging act as a mediator between their function as leaders and teachers' professional development, either directly or indirectly, through boosting teachers' self-efficacy. Based on this discussion, teacher self-efficacy is a vital psychological factor that affects an individual's actions and is indeed an important element that affects teachers' professional learning.

4. Aim

This study aims to identify self-efficacy as a mediator in the relationship between the principal's position as a professional learning leader and the professional learning of Fully Residential School (SBP) teachers in the South Zone. Four research hypotheses have been proposed:

Ho1: There is no significant relationship between the principal's position as a professional learning leader and the professional learning of SBP teachers in the South Zone.

Ho2: There is no significant relationship between the principal's position as a professional learning leader and the self-efficacy of SBP teachers in the South Zone.

Ho3: There is no significant relationship between teacher self-efficacy and professional learning of SBP teachers in the South Zone.

Ho4: Self-efficacy among teachers does not influence a mediator variable in the relationship between the principal's position as a professional learning leader and the professional learning of SBP teachers in the South Zone.

5. Methodology

This study was a descriptive-correlational survey study that used questionnaires for data collection. A study in the form of a survey was used to identify trends in the attitudes, behaviors, views, and characters of a population. The study population consisted of 1033 teachers from sixteen Fully-Residential Schools (SBP) in the Southern Zone, namely Negeri Sembilan, Melaka, and Johor. The total sample was 285 teachers to represent the population by using stratified sampling. This method was very suitable for a population that involved a large area and a large number of samples such as this study involving SBP teachers in the South Zone.

The research instrument used to measure the level of the principal's role as a professional learning leader was adapted from the School-Based Professional Learning Leader Role instrument by Mansor et al. (2013). This instrument contained four constructs of the principal's responsibility as a learning leader, namely developer, designer, implementer, and reflective leader. Additionally, the Teacher Self-Efficacy tool utilised in this study was adapted from a questionnaire by Tschannen-Moran & Hoy, (2001b), *'Teacher Sense of Efficacy Scale'*. Next, the Teacher's Professional Learning instrument was adapted from Evers et al. (2016) and Merwe (2016) which consisted of four constructs namely following the latest developments, sharing information and feedback, experimentation and reflection, and collaboration among colleagues.

A pilot study was conducted on 50 teachers in the South Zone SBP to test the validity and reliability of the instrument and the fluency of the questionnaire. According to Pallant (2016), at least 30 respondents are required for the pilot study because it is the minimum number to get a normal curve. The pilot study results are shown in Table 3.1.

Table 3.1: Cronbach's Alpha Reliability Index for the construct of the Principal's Position as a Professional Learning Leader, Teacher Self-Efficacy, and Teacher Professional Learning.

Variables	Items	Cronbach's Alpha
1. The Principal's Position as a Professional Learning Leader	35	.971
2. Teacher Self-Efficacy	27	.950
3. Teacher Professional Learning	24	.974

6. Result

The data obtained were analyzed using the Statistical Package for the Social Science (SPSS) software. Pearson correlation coefficient (r) was used to see the relationship between the studied variables. The interpretation of the correlation value in this study used the value of the Pearson correlation coefficient (r) as shown in Table 4.0:

Table4.0Correlation Coefficient Value 'r'

Correlation Coefficient Value (r)	Coefficient Interpretation
0.01 – 0.09	Can be ignored
0.10 – 0.29	Low
0.30 – 0.49	Moderate
0.50 – 0.69	Strong
0.70 – 0.99	Very High
1.00	Perfect

Source: Davies, I.I.C. 1971. The Management of Learning. London: C. GainHill

The relationship between the principal's position as a professional learning leader and the professional learning of SBP teachers in the South Zone

Ho1: There is no significant relationship between the principal's role as a professional learning leader and the professional learning of SBP teachers in the South Zone.

The results of the correlation analysis found that there was a significant relationship between the principal's position as a professional learning authority and the professional learning of SBP teachers in the South Zone, $r = .561^{**}$, $\text{sig} = .000$ ($p < .005$) as shown in Table 4.1. Since there was a significant relationship between the principal's position as a professional learning leader and the professional learning of SBP teachers in the South Zone, then Ho1 was rejected.

Table4.1: The relationship between the Principal's Position as a Professional Learning Leader and the Professional Learning of SBP Teachers in the South Zone

Variables	Pearson Correlation	Sig. (2- tailed)
The principal's role as a professional learning leader * Teacher professional learning at SBP	.561**	.000

The relationship between the principal's position as a professional learning leader and the SBP educators'self-efficacy in the South Zone

Ho2: There is no significant relationship between the principal's position as a professional learning leader and the self-efficacy of SBP teachers in the South Zone.

Table 4.2 shows a significant correlation between the principal's role as a professional learning leader and the SBP educators'self-efficacy in the South Zone. The correlation analysis's findings revealed a substantial connection between the principal's position as a professional learning leader and the South Zone's SBP teachers' self-efficacy, $r = .569^{**}$, $\text{sig} = .000$ ($p < .005$). The relationship was strong. The positive Pearson correlation value (r) indicates that SBP teachers in the South Zone have stronger self-efficacy the more the principal plays the role of a professional learning leader.

Table4.2: The Relationship between the Principal's Position as a Professional Learning Leader and the Self-Efficacy of SBP Teachers in the South Zone

Variable	Pearson Correlation	Sig. (2- tailed)
The principal's role as a professional learning leader * SBP Teacher self-efficacy	.569**	.000

Teacher Self-efficacy and professional learning among SBP Instructors in the South Zone

Ho3: There a no significant relationship between teacher self-efficacy and professional learning of SBP teachers in the South Zone

The South Zone SBP teachers' self-efficacy and professional learning have a substantial link, as shown in Table 4.3 below. The correlation analysis showed a significant correlation between teacher self-efficacy and the professional learning of SBP teachers in the South Zone, $r = .691^{**}$, $\text{sig} = .000$ ($p < .005$). The relationship was strong. Since the Pearson correlation value (r) was positive, it follows that the South Zone SBP teachers' professional learning increased in proportion to their level of self-efficacy. Therefore, Ho3 was successfully rejected.

Table4.3: Teacher Self-efficacy and Professional Learning

Variable	Pearson Correlation	Sig. (2- tailed)
Teacher self-efficacy * Teacher professional learning at SBP	.691**	.000

Teacher self-efficacy as a mediator between the principal's position as a professional learning leader and the professional learning of SBP teachers in the South Zone

Ho4: Self-efficacy of the teachers has no influence as a mediator variable on the relationship between the principal's position as a professional learning leader and the professional learning of SBP teachers in the South Zone.

The findings show that teacher self-efficacy acts as a mediator between the principal's position as a professional learning leader and the professional learning of SBP teachers in the South Zone as shown in Figure 4.4. Principals as professional learning leaders indirectly influence teachers' professional education through the mediation of the teacher's self-efficacy. This suggests that up to 31.29% of the relationship between the teacher's professional learning and the principal's function as the professional learning leader is mediated (has an impact or influence) by the teacher's self-efficacy. Ho5 was thus disapproved. Figure 4.4 demonstrates how the teacher's self-efficacy mediates (or exerts influence) the relationship between the principal's function as a leader in professional learning and the teacher's professional development.

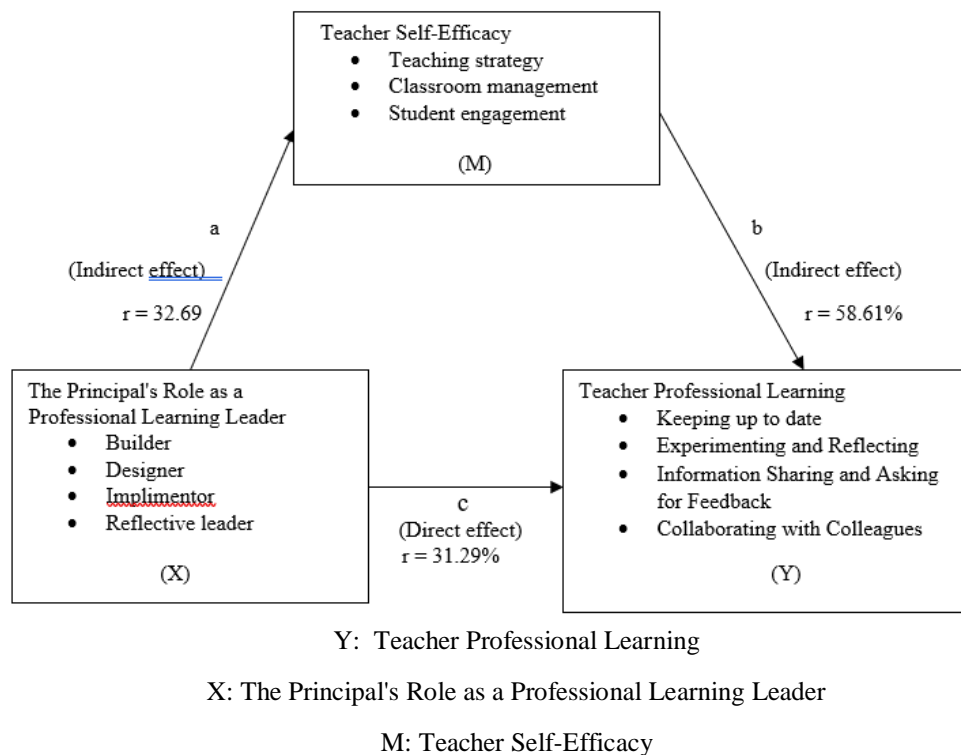


Figure4.4: Teacher Self-Efficacy as a Mediator between the Principal's Position as a Professional Learning Overseer and Teachers' Professional Learning at SBP

Next, the bootstrapping test was performed to analyze the effects of indirect relationships based on the significance of relationships compared to other approaches that only look at the full, partial, or non-existent mediator aspects (Hayes, 2008). Table 4.5 displays the results of the bootstrapping test that indicated a full mediator between the teacher's professional education and the principal's position as a leader in professional learning.

Table4.5 Self-Efficacy among Teachers as a Mediator between the Principal's Position as a Professional Learning Leader and the Professional Learning of SBP Teachers in the South Zone

Mediator Model	Variable	Line	Effect	Coefficient	P	Indirect effect(s) of X on Y	Total effect of X on Y	Effect size Mediator
					<0.05			
						Boot	BootULCI	Indirect
						LLCI	Direct	effect(s)
							effect	of X on Y
							of X on Y	
X	Principal's	a	Principal's	.5208	.0000	.2573	.3972	
	Position as a		Position as a					

	Professional		Professional					
	Learning		Learning					
	Leader		Leader					
Y	Teacher	c	Teacher	.2593	.0000		.5861	
	Professional		Professional				P<.0000	
	Learning		Learning				(.5861x	
							100=	
							58.61%)	
M	Teacher	b	Teacher	.6276	.0000			.3129
	Self-Efficacy		Self-Efficacy					P<.0000
								(.3129x
								100=
								31.29%)
		a*b	Principal's			.3269		
			Position as			(.3269x		
			a					
			Professional			100=		
			Learning			32.69%)		
			Leader					
			*					
			Teacher					
			Professional					
			Learning					

The analysis's findings demonstrate indirect unstandardized bootstrap effect is .3269 (.3269 x 100 = 32.69 %), and the 95% confidence interval (CI) ranges from .2573 to .3972. In summary, the teacher's self-efficacy as a mediator had a strong indirect effect or influence on the principal's position as professional learning authority on the teacher's professional learning (r = 31.29%). This indicates that the relationship between the function of the principal as a professional learning figurehead and the teacher's professional learning is mediated by the teacher's self-efficacy, which had a 31.29% influencing effect.

7. Discussion

The relationship between the principal's position as a professional learning figurehead and the professional learning of SBP teachers in the South Zone

The findings showed a significant relationship between the principal's position as a professional learning figurehead and the professional learning of SBP teachers in the South Zone. This is in line with Mansor et al. (2013) that teachers view the role of school leaders as having a positive relationship with their learning. Accordingly, principals, who serve as school leaders, have a significant impact on how teachers build their professional learning. Furthermore, Postholm (2019) explained the significance of leadership involvement in the process of developing school-based teacher learning. Teachers need to be given the opportunity to observe the teaching practices of other teachers and use the learning outcomes from these observations to reflect and improve their teaching practices. This perspective highlights the significance of school leadership in fostering teachers' professional learning.

Compared to outside professional learning activities that have constraints in terms of relevance, time, and expenses, teachers believe school-based learning activities are more valuable, relevant, and related to their actual needs (Liu & Hallinger, 2018). This study offers strong evidence in favour of the idea that teacher engagement in professional learning activities is greatly influenced by leadership. The data extraction yielded four leadership practices: moral purpose, cooperation, learning assistance, and motivating strategies that are connected to effective teacher learning. This clearly shows the importance of school leadership, in particular, developing teachers' professional learning.

The findings are also in line with (K. Leithwood et al., 2019) that the principal, who holds the top position in the school, has a significant impact on teachers' and students' learning, according to nearly 50 years of study on educational management and leadership. Additionally, Past research has also looked at the connection between leadership at the school grade and teacher professional development (Hallinger et al., 2014). Previous studies prove that school leaders, especially principals, play an important role as professional learning leaders to improve professional learning among teachers in schools.

The relationship between the principal's function as a professional learning figurehead and the South Zone SBP teachers' self-efficacy

The results demonstrate a significant link between teacher self-efficacy and the principal's function as a professional learning leader. The findings of this study are in line with previous studies (Hallinger et al., 2018). This study has utilised the Principal Instructional Management Rating scale (PIMRS) to study how principals' leadership and self-efficacy affect the teachers' self-efficacy. In addition, past studies also show that principals have an impact on teacher efficacy by communicating a motivating learning vision for the school, setting realistic goals, outlining expectations for teacher and student performance, supporting teacher growth and development, and providing teachers with support to be successful (Tschannen & Woolfolk, 2001).

Next, Arifin et al. (2020) found four principals' roles to strengthen teacher self-efficacy and collective efficacy, namely inspiration, guide, motivator, and facilitating the group process. Self-efficacy is vital for teachers because high self-efficacy helps teachers create a feeling of calm in carrying out tasks, especially difficult activities. On the other hand, people who doubt their abilities, believe that something is more difficult than it is. Consequently, the leadership style of the principal has a significant impact on the teachers' self-efficacy. In addition, Xie et al. (2022) emphasized demonstrating the significance of principal leadership in fostering teacher efficacy and demonstrating the potential link between teachers' perceptions of principal leadership and teacher efficacy through cooperation and interaction, school administrators can increase teacher engagement and hence raise teachers' self-efficacy. Based on the discussion, it clearly shows that when the principal acts as a learning leader that is centred on the instructor's learning, their self-efficacy will rise.

Teacher Self-efficacy and Professional Learning of SBP Teachers in the South Zone

The findings show a significant relationship between the self-efficacy of teachers and their professional learning. The results of this investigation are consistent with those of these earlier studies (Tschannen-Moran & Hoy, 2001a) that attest to the notion that teacher self-efficacy is a significant psychological aspect that influences teachers' professional learning favorably. In addition, this study is also in line with (Zainal Abidin, 2021) who

found that the factor that contributes to teacher self-efficacy is professional learning which is 36.8 percent. This clearly shows that continuous professional learning will enhance the self-efficacy of teachers in making decisions at the school level, and also has the fortitude to enhance instructors' performance in the areas of curriculum and co-curriculum.

Previous studies have shown a direct and favourable relationship between teacher self-efficacy and professional learning. When faced with difficulties, teachers who have high self-efficacy continually work to improve their teaching techniques, thus improving their teaching performance and raising self-efficacy. On the other hand, teachers with low self-efficacy put less effort into learning best practices and give up more readily when faced with difficulties, which lowers their teaching performance and subsequently lowers their self-efficacy (Tschannen-Moran et al., 1998). According to Bandura (1977), self-efficacy is crucial for teachers' learning because it will determine their effort and time allocation for the learning activity if they face obstacles and negative experiences. A teacher who has high self-efficacy will have high motivation in completing a task efficiently and orderly.

The Influence of Self-Efficacy as a Mediator between the Learning Leaders' Roles and Teacher Professional Learning

The results demonstrate that teacher self-efficacy mediates the relationship between the teacher's professional learning and the principal's function as a professional learning leader. The results are consistent with earlier research, including (Tschannen-Moran & Hoy, 2001a), which confirm that an important psychological element for predicting teacher professional development is teacher self-efficacy. Additionally, this study also supported Liu & Hallinger, (2018) which illustrates how Chinese teachers' excellent professional learning relates to their great teaching effectiveness. The earlier research demonstrates that teacher self-efficacy is a vital element that influences teachers' professional education.

This study mirrors Huang et al. (2020) which examines the effect of three school conditions and found that Chinese teacher professional growth is impacted by learning-centered leadership, learning possibilities, and cultural barriers. In this study, the relationship between organisational factors and teacher professional development is mediated by teachers' sense of self-efficacy. This study demonstrated that learning-centered leadership and learning chances are two school organisational characteristics that significantly and favourably affect teacher learning. The impacts of both learning-centered leadership and cultural barriers on teacher professional learning are greatly mitigated by teacher self-efficacy.

Based on the discussion above, self-efficacy is an important psychological factor that school administrators need to concentrate on, especially to encourage teachers to carry out teaching tasks more effectively. Based on the literature review in numerous studies in the social sciences, particularly in the field of education, many researchers have looked at self-efficacy as a mediator (Liu & Hallinger, 2018; Merwe, 2016). However, in the link between the function of professional learning leader and teacher professional learning, there is less research was conducted related to teacher self-efficacy as a mediator. The results of this research demonstrate that self-efficacy mediates the relationship between the principal's function as a leader of professional learning and the professional education of SBP teachers in the South Zone.

8. Implication

The findings of this study contribute to an understanding of the principal's function as a learning figurehead, the self-efficacy of teachers, and teachers' professional learning. This study also demonstrates the critical role leaders play in directing, inspiring, supporting, and sustaining teacher learning as well as leading and developing teachers. Furthermore, professional learning is a crucial aspect that needs to be paid attention to by leaders because it can improve the knowledge and skills of teachers to meet today's educational needs. The latest

educational information obtained by teachers through activities of writing, reading, knowledge sharing, receiving feedback, and collaboration from colleagues will improve teachers' teaching and learning practices. This study also demonstrates how important teacher self-efficacy is in enhancing the principal's function of teachers' professional development. This indicates that increasing the principal's function as a leader will raise teachers' self-efficacy, which in turn will enhance their professional learning.

9. Conclusion

In summary, this study found that the mediator variable between the principal's function as a professional learning leader and the professional development of SBP teachers in the South Zone was teacher self-efficacy. Self-efficacy is a vital element that reflects the teacher's confidence and ability to perform teaching tasks, encourage active student involvement in learning activities, and manage the classroom effectively. As learning leaders, principals should work to increase teachers' sense of self-efficacy because this will help their professional learning. This study clearly shows that self-efficacy is crucial to teachers because it is the principle of a teacher's actions; before a teacher commits and acts on something, they should have high self-efficacy.

10. References

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