# Impact of High School Directors' Digital Leadership Practices on Teachers' Self-Efficacy: A Case Study in Phnom Penh, Cambodia

# Seila Kim<sup>1</sup>, Sarom Mok<sup>2</sup>, Sothea Lim<sup>3</sup>, Sereyrath Em<sup>4</sup>

<sup>1</sup> Preah Sihanomoniraja Buddhist University, Phnom Penh, Cambodia
<sup>2,3</sup> The Ministry of Education, Youth and Sport, Phnom Penh, Cambodia
<sup>4</sup> The University of Cambodia, Phnom Penh, Cambodia

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#### **ABSTRACT**

**Purpose of the Study:** This study aims to investigate the impact of high school directors' digital leadership practices on teachers' self-efficacy in Phnom Penh, Cambodia.

**Methodology:** This study employed a quantitative survey design, utilizing an online questionnaire. The sample included 300 teachers from 30 high schools in Phnom Penh City. Data analysis was conducted with SPSS version 30, employing both descriptive and inferential statistical methods to answer the research questions.

Main Findings: Findings show that both high school directors' digital leadership practices and teachers' self-efficacy, overall and by dimensions, were at high levels. A weak but significant positive correlation was found between digital leadership practices and teachers' self-efficacy. The results also suggest that strengthening digital leadership can indirectly enhance teaching standards by boosting teachers' self-efficacy.

**Novelty/Originality of this Study:** This study contributes new knowledge by empirically linking digital leadership practices of school directors with teachers' self-efficacy in Cambodia's secondary education sector. It advances existing research by highlighting the contextual role of digital leadership in improving teacher capacity, offering practical insights for policymakers and school leaders to develop targeted leadership and training programs.

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## Corresponding Author:

Seila Kim,

Preah Sihanomoniraja Buddhist University, Sangkat Tonle Bassac, Khan Chamkarmorn, Phnom Penh, Kamboja, Cambodia

Email: kim.seila71@gmail.com

## 1. INTRODUCTION

The swift progression of digital technology in the 21st century has profoundly altered educational leadership and pedagogical methods globally. The Ministry of Education, Youth and Sport in Cambodia acknowledges the significance of this transition in its Educational Strategic Plan 2024–2028, which prioritizes innovation, quality enhancement, and professional excellence in education. As educational institutions progressively incorporate digital tools into management and pedagogy, the significance of school directors, as noted by Sothea et al. [1], has intensified markedly as digital leaders. Effective digital leadership enhances school management and instructional quality while also boosting instructors' confidence in utilizing technology to facilitate students' learning. Despite its increasing importance, there is a paucity of research examining the impact of Cambodian school directors' digital leadership practices on teachers' self-efficacy, especially within the setting of Phnom Penh City. This study aims to investigate the correlation between the digital leadership practices of high

school principals and teachers' self-efficacy, offering significant insights into how leadership in the digital age enhances the efficacy of teaching and learning in Cambodia.

Cambodia's education system has changed as a result of the policies outlined in the Educational Strategic Plan 2024-2028 by Ministry of Education, Youth and Sport [2], which are being implemented gradually in several areas. The goal of the Educational Strategic Plan 2024-2028 is to make teaching a more desirable occupation. Additionally, according to Ministry of Education, Youth and Sport [2] and Kim et al. [3], when school leaders, especially principals, use technology to carry out leadership duties, including resource management, strategy planning, and teacher effectiveness monitoring, this is referred to as digital leadership.

According to Kotze et al. [4], digital leadership also refers to school leaders' ability to incorporate technology into teaching and administration to improve student performance and the efficiency of school operations. Furthermore, it follows that more study is clearly needed to fill in the gaps in school directors' use of digital leadership techniques from the viewpoint of teachers [5], [6]. Besides, teachers' proficiency with Information and Communication Technology is both a benefit and a requirement for creating meaningful and interesting teaching and learning processes [7], [8].

For schools to be more effective and for teaching to be of higher quality, all teachers must have teacher self-efficacy. In the technologically driven age of educational modernization, digital leadership practices have emerged as a vital requirement for school directors to lead more successfully. Digital leadership practices are crucial for improving school efficacy and the caliber of instruction and learning in Cambodia [1], [2]. Information and Communication Technology explosive growth of Information and Communication Technology has also changed the face of education around the world. In order to comprehend how school directors' digital leadership techniques impact teachers' self-efficacy, this study is essential [1], [9]. Digital leadership practices have the ability to improve teacher motivation, boost school operational performance, and create students who are more equipped to handle the difficulties of the twenty-first century, which makes this research important [2], [3].

Traditional leadership in education and its effects on student achievement have been the subject of more previous research by Ministry of Education, Youth and Sport [2] and Haarala-Muhonen et al. [7]. Nonetheless, little is known about digital leadership, particularly in Cambodian high schools. The dearth of research relating teachers' self-efficacy and school directors' digital leadership is a significant problem that requires attention. Thus, the purpose of this study is to close this gap by concentrating on high schools in Phnom Penh City. The literature and data now available have led to a number of studies on teachers' self-efficacy and digital leadership practices. However, given the possible influence they might have on the Cambodian educational system, such research must go on. The purposes of this study are threefold, (1) To find out the level of digital leadership practices by high school directors in Phnom Penh City, Cambodia, (2) To explore the level of high school teachers' self-efficacy in Phnom Penh City, Cambodia, (3) To determine the relationship between the level of digital leadership practices by high school directors and high school teachers' self-efficacy in Phnom Penh City, Cambodia.

As mentioned, this study aims to examine the current state of digital leadership practices among high school directors and the self-efficacy of high school teachers in Phnom Penh City. Comprehending these aspects will elucidate the impact of school leadership on teaching efficacy in the digital era. The study aims to address the subsequent research questions, (1) What is the level of digital leadership practices by high school directors in Phnom Penh City, Cambodia?, (2) What is the level of high school teachers' self-efficacy in Phnom Penh City, Cambodia?, (3) Is there a significant relationship between the high school directors' digital leadership practices and high school teachers' self-efficacy in Phnom Penh City, Cambodia?.

Based on the objectives and research questions of this study, it is necessary to test whether a significant relationship exists between high school directors' digital leadership practices and teachers' self-efficacy. To this end, the following research hypothesis is proposed, Ho: There is no significant relationship between the levels of digital leadership practices by high school directors and high school teachers' self-efficacy in Phnom Penh City, Cambodia. This study's conceptual framework combines Teachers' Self-Efficacy Theory with the digital leadership practices of school directors to examine their possible impact on teachers' professional performance. The framework integrates theoretical principles with practical leadership criteria, offering a systematic method to analyze the impact of directors' digital leadership on teachers' self-efficacy across various dimensions.

The Teacher Self-Efficacy Theory by Tschannen-Moran and Hoy [10] is combined with demographic data in this study. School directors' digital leadership practices are adapted from the School Director Standard by Khy and Bo [11] and consolidated using five dimensions:

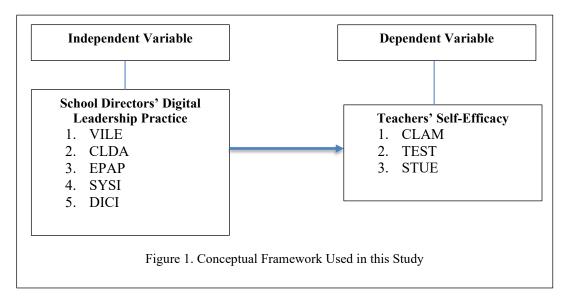
- (a) Visionary Leadership (VILE)
- (b) Culture of Learning in the Digital Age (CLDA)
- (c) Excellence in Professional Academic Practice (EPAP)
- (d) Systemic Improvement (SYSI), and
- (e) Digital Citizenship (DICI).

Three components make up the teacher's self-efficacy paradigm in the Teacher Sense of Efficacy Scale:

(a) Classroom Management (CLAM)

- (b) Teaching Strategies (TEST); and
- (c) Student Engagement (STUE) [10]. The elements of the teachers' self-efficacy Scale determine teachers' potential to exhibit their abilities as excellent educators [12].

The conceptual framework of this study is depicted in Figure 1.



This study advances our understanding of how teachers' confidence in utilizing technology in the classroom is impacted by administrators' digital leadership. To make teaching a preferred professional path is the goal of the Educational Strategic Plan 2024-2028 of Ministry of Education, Youth and Sport. Additionally, each teacher should have traits of self-efficacy to raise teacher quality and school effectiveness. The results of this study can help administrators and legislators create more successful leadership plans that will boost teachers' self-efficacy.

## 2. LITERATURE REVIEW

Accordingly, a result of the substantial changes brought about by the advent of digital technology in educational leadership and teaching practices, there has been an increased emphasis on how school administrators and instructors are adapting to this digital revolution. The purpose of this section is to examine existing research and theoretical perspectives on the digital leadership of school directors, the self-efficacy of teachers, and the relationship between these two factors. The review focuses on how digital leadership affects teachers' confidence in their ability to use technology, as well as how both of these factors contribute to enhanced methods of instruction and learning outcomes.

# 2.1. A Brief Overview of School Directors' Digital Leadership

The term "digital leadership" describes how educational leaders might use technology to improve management and teaching [13]. In a study conducted in the United Kingdom with 20 secondary schools, Witthöft et al. [13] discovered that technologically literate school directors were more successful at running their institutions. Teachers in schools with school directors who were proficient in technology were more inclined to use it in their lessons, which eventually raised student achievement.

A study conducted in Australia by Anwar and Saraih [14] with 250 teachers revealed that schools with technology-literate school directors performed better because they promoted the use of technology in the classroom. Student achievement increased as a result of teachers receiving support and training on how to use technology to improve their instruction. According to Ismail et al. [15], school directors' digital leadership practices, the methods and activities they use to guide, oversee, and integrate digital technology into school administration and teaching, were found in a study of six secondary schools in the Federal Territory of Kuala Lumpur to enhance classroom technology use, as principals with strong technological skills supported teachers' technological proficiency, which in turn improved student learning outcomes.

According to a study by Yuan and Wang [16] that involved eight secondary schools in Selangor, school directors with technological expertise assisted teachers in incorporating technology into their lessons, which raised the standard of teaching and learning in the institutions. According to the findings, school directors' digital leadership is crucial in fostering an atmosphere that encourages the use of technology in the classroom. Besides, a

study by Abu-Tineh et al. [17] with 120 teachers in the Petaling Utama District of Selangor demonstrated that school directors who were proficient in digital technology may improve the standard of teaching and learning in their schools. Nonetheless, it was difficult to guarantee that all teachers had sufficient training and to provide a suitable technology infrastructure.

## 2.2. A Brief Overview of Teachers' Self-Efficacy

The belief in one's own ability to carry out professional duties is known as teacher's self-efficacy [18]. Teachers with high self-efficacy were more committed and innovative in their teaching, according to a study conducted in Malaysia by Lim et al. [19] with 200 teachers. According to this study, teachers who felt confident in their abilities were more inclined to use technology in the classroom.

In a study of 150 teachers in Israel, Duan et al. [20] discovered that teachers who had a high level of self-efficacy were better at running their classrooms and creating a positive learning atmosphere. These educators also had a higher propensity to employ successful teaching techniques to raise student performance. In addition, the three primary components of teacher self-efficacy are (a) instructional tactics, (b) classroom management, and (c) student involvement [10]. According to the study, teachers with high self-efficacy were better at running classrooms and guaranteeing active student participation in teaching, which involved 200 teachers in the US.

According to Bandura [21]'s study, which involved 300 instructors in Canada, teachers who had a high level of self-efficacy were more equipped to use technology and implement innovative teaching strategies to increase their effectiveness. Additionally, these educators exhibited greater creativity and self-assurance while modifying their methods in the classroom. Teachers who have faith in their own skills were more inclined to adopt new technology and try out more creative teaching techniques, based on Schmitz et al. [22]'s study.

# 2.3. The Digital Leadership and Teachers' Self-Efficacy Relationship

The degree of teacher self-efficacy and school directors' digital leadership practices are positively correlated. In the Klang District of Selangor, a study by Hamzah et al. [23] with 150 teachers revealed that administrators who supported and encouraged the use of technology in the classroom helped teachers feel more confident in the digital classroom. Teachers who believed their school directors supported them were more willing to experiment with new teaching technologies.

According to a study conducted in Singapore with 100 teachers, Luo et al. [24] found that teachers' self-efficacy was positively impacted by school director support in the form of training and chances for creative technology use. When their school directors fully supported them, teachers were more open to modifying their pedagogical approaches. In Johor, a study conducted by Guggemos et al. [25] with 120 teachers revealed that school directors who actively participated in technology use might boost teachers' confidence in utilizing technology in the classroom. Teachers were more inclined to participate in the digital revolution of education if they believed that their school directors were tech-savvy.

According to a Kuala Lumpur study by Li [26], instructors were more inclined to use technology in 21st-century education when they had the backing of tech-savvy school directors. This study demonstrates that school directors' digital leadership has a direct effect on teachers' self-efficacy and motivation.

# 3. RESEARCH METHOD

The following part provides an overview of the methodologies and processes that were utilized in order to investigate the connection between the digital leadership practices of high school directors and the self-efficacy of teachers in the Phnom Penh City area. The research design, population and sampling, research instrument, and statistical methodologies that were utilized in the data analysis are all described in this section.

## 3.1. Research Design

A survey research design using a quantitative methodology is used in this study. A survey given to high school teachers in the Phnom Penh City area serves as the main tool. The study uses a descriptive correlation approach to determine how high school directors' digital leadership practices and teachers' self-efficacy relate to one another. Because the researcher can quantify the strength of the association between variables without changing them, this approach is appropriate [27].

# 3.2. Population and Samples

High school teachers in Phnom Penh City make up the study population. A representative sample was chosen at random from the selected 30 high schools. For a sample size of 300 teachers, this study needed to select 10 teachers from each school purposively. According to Bhardwaj [28], once the sample size had been established, the sample was selected via a purposive random sampling technique in order to give each person an equal chance of being chosen for the sample.

#### 3.3. Research Instrument

The research instrument used in this study is a questionnaire that was modified from earlier research. Three primary aspects comprise the questionnaire: (a) Demographic Data; (b) School Directors' Digital Leadership; and (c) Teachers' Self-Efficacy. It uses a 5-point Likert scale to gauge teachers' confidence in using technology and how they view digital leadership practices. Three sections of an online questionnaire (created using Google Forms) served as the study's instrument. Section I is about the demographic data (age, gender, qualification, and teaching experience). Section II mentions the 31 items measuring the school directors' digital leadership practices. Section III contains 25 items measuring the teachers' self-efficacy.

With approval from technology and education specialists, the instrument's validity was evaluated by adapting it from earlier research. The Cronbach's Alpha coefficient was used to assess the questionnaire's reliability and guarantee its internal consistency. The Cronbach's Alpha coefficient was employed to test reliability, and the correlation coefficient was used to determine content validity. High dependability is indicated by an alpha value for each subscale greater than 0.9. For instance, the alpha value for the digital leadership scale is 0.93, whereas the alpha value for the self-efficacy scale is 0.91.

The interpretation criteria were used to analyze the digital leadership practices of school directors and the self-efficacy of teachers: range between 1.00 and 1.50, which is interpreted as extremely low; range between 1.51-2.50, which is interpreted as low; range between 2.51-3.50, which is interpreted as moderate; range between 3.51-4.50, which is interpreted as high; range between 4.51 and 5.00, which is interpreted as extremely high [29].

## 3.4. Data Analysis and Statistical Procedures

To assess the degree of digital leadership practices and self-efficacy, descriptive analysis was employed. The Pearson correlation test was used to determine how the variables related to one another. Additionally, to ascertain the proportionate impact of digital leadership on teachers' self-efficacy, linear regression analysis was used. The SPSS software, version 30, was used to analyze the data. Descriptive statistics (mean, median, and standard deviation) were used to gauge digital leadership practices and the extent of teachers' self-efficacy. The two variables' relationship was ascertained through the use of Pearson Product-Moment Correlation tests.

### 4. RESULTS AND DISCUSSION

For presenting the results of this study, two methods of analysis are used. The first is descriptive analysis, which measures the degree of school directors' digital leadership practices and teachers' self-efficacy by examining mean values and standard deviation. In the second inferential analysis, the relationship between the two variables under study is examined using the Pearson Product-Moment Correlation test.

## 4.1. Results of Research Question 1

Research question 1 asked: "What is the level of digital leadership practices by high school directors in Phnom Penh City, Cambodia?"

Table 1. The Mean, Standard Deviation, Meanings, and Ranking of Digital Leadership Practices of School Directors (N = 300)

Dimension	Mean	SD	Meaning	Ranking
VILE	4.25	0.86	High	1
CLDA	4.05	0.88	High	4
EPAP	4.15	0.82	High	2
SYSI	4.10	0.81	High	3
DICI	4.00	0.85	High	5
Total	4.11	0.84	High	

Note: VILE = Visionary Leadership, CLDA = Culture of Learning in the Digital Age, EPAP = Excellence in Professional Academic Practice, SYSI = Systemic Improvement, DICI = Digital Citizenship

As revealed in Table 1 above, the findings show that the high school directors' digital leadership practices in Cambodia, both as a whole and by each dimension, were at a high level. Ranking from the highest to the lowest mean scores, the findings reported that they practiced the Visionary Leadership (VILE) the most (M = 4.25, SD = 0.86), followed by the Excellence in Professional Academic Practice (EPAP) the second most (M = 4.15, SD = 0.82), the Systemic Improvement (SYSI) the third most (M = 4.10, SD = 0.81), the Culture of Learning in the Digital Age (CLDA) the fourth most (M = 4.05, SD = 0.88), and the Digital Citizenship (DICI) the last most (M = 4.00, M = 4.00, M = 4.00, M = 4.00, M = 4.00, respectively. These findings indicate that Cambodian high school directors in Phnom Penh City practice a high level of their digital leadership.

## 4.2. Results of Research Question 2

Research question 2 asked: "What is the level of high school teachers' self-efficacy in Phnom Penh City, Cambodia?"

Table 2. The Mean, Standard Deviation, Meanings, and Ranking of Teachers' Self-Efficacy (N=300)

Dimension	Mean	SD	Meaning	Ranking
CLAM	4.30	0.88	High	2
TEST	4.35	0.82	High	1
STUE	4.25	0.84	High	3
Total	4.30	0.85	High	

Note: CLAM= Classroom Management, TEST= Teaching Strategies, STUE= Student Engagement

Based on Table 2 above, the findings revealed that the high school teachers' self-efficacy in Cambodia, both as a whole and by each dimension, was at a high level. Ranking from the highest to the lowest mean scores, the findings reported that they were confident that the Teaching Strategies (TEST) was the most (M = 4.35, SD = 0.82), followed by the Classroom Management (CLAM), the second most (M = 4.30, SD = 0.88), and the Student Engagement (STUE), the third most (M = 4.25, M = 0.84), respectively. As seen by this, teachers are highly confident in their capacity to manage students, fulfill their teaching responsibilities, and accomplish learning objectives.

## 4.3. Results of Research Question 3

Research question 3 asked: "Is there a significant relationship between the high school directors' digital leadership practices and high school teachers' self-efficacy in Phnom Penh City, Cambodia?". This is the formulation of the null hypothesis (Ho) for this research question: "There is no significant relationship between the levels of digital leadership practices by high school directors and high school teachers' self-efficacy in Phnom Penh City, Cambodia."

Table 3. Relationship between Digital Leadership Practices of School Directors and Teachers' Self-Efficacy (N = 3 00)

		Teachers' Self-Efficacy
Digital Leadership Practices	Pearson Product-Moment Correlation (r)	0.255**
of School Directors	Sig. (1-tailed)	0.000

As indicated in the table above, school directors' digital leadership practices and teachers' self-efficacy have a weak but significant relationship, according to the study's Pearson correlation value (r) of 0.255. This implies that the more effective digital leadership strategies administrators use, the more confident instructors are in their ability to educate. This association is extremely significant and not the result of chance, as indicated by the significance value (Sig.) of 0.000, which highlights the critical role principals play in boosting teachers' trust in technology and the use of digital tools in the classroom.

This section analyzes the study's findings in the context of the current literature and theoretical frameworks. The text examines the tiers of digital leadership practices among school directors, the self-efficacy of teachers, and the correlation between these two variables, offering insights into how digital leadership enhances teaching confidence and classroom efficacy in Cambodian high schools.

## 4.4. Discussion of the School Directors' Digital Leadership Practices

School directors in the study can develop strategic goals and vision to propel the school toward greatness in the digital era, as evidenced by the dimension of Visionary Leadership, which had the highest mean score. This research supports the findings of Wollscheid et al. [30], who highlighted the need for visionary leadership in enabling educational institutions to adjust to technology advancements and satisfy the demands of 21st-century learning.

A mean score of 3.99, which is within the high range, was also reported for the Culture of Learning in the Digital Age. In line with the findings of Mustafa [31], who claimed that a digital-era learning culture encourages creativity and cooperation between teachers and learners, this shows that a technology-integrated learning culture has been extensively adopted. Also, at a high level is the Excellence in Professional Academic Practice component. According to this research, high school teachers in the study demonstrate a high degree of professionalism in their teaching and learning processes. Brien [32] asserted that professional academic practices are strongly linked to both student accomplishment and the development of teachers' abilities in the digital age lends weight to this.

The Systemic Improvement Dimension then showed a mean score of 4.10, which is likewise high. This suggests that the school regularly implements structural changes to assist learning in the twenty-first century. This conclusion is reinforced by Leithwood et al. [33], who point out that systemic changes are essential to the success of digital projects at the school level. Lastly, a mean score of 4.00 on the Digital Citizenship dimension indicated that the school community was well-aware of and practiced the values of digital citizenship. Digital citizenship is crucial for creating a responsible school community in terms of the moral and efficient use of technology [26]. The management of digital-era learning and digital leadership practices in these high schools has met excellent standards, as evidenced by the overall high level of all five dimensions studied. This result supports the purpose of the study, which was to find out the degree of digital leadership practices used by school directors and how they affect teachers' self-efficacy.

## 4.5. Discussion of the Teachers' Self-Efficacy

According to Wilkins [34] and Putra and Yanto [35], the classroom management component is exhibited at a high level. This implies that high school teachers who took part in this study use efficient classroom management strategies that foster a positive learning atmosphere. Effective classroom management is essential to improving the efficacy of teaching and learning. Teachers can better regulate student conduct and provide seamless instruction in well-managed classrooms. Cambodian high school teachers also employ high-quality teaching strategies. Diverse and creative teaching methods can boost student involvement and support their academic success [15]. According to Guggemos et al. [25], teachers who use a variety of teaching strategies, such as project-based learning or student-centered learning, typically see greater improvements in their students' comprehension of the material.

Student participation in the teaching and learning process is quite strong. A crucial component of excellent learning outcomes is active student engagement. Students who participate in learning activities, both mentally and physically, are more motivated, and learning is more effective [25]. Thus, the high degree of student involvement suggests that these schools' teachers are successful in grabbing students' interest and enticing them to participate actively in their learning. With a mean score of 4.30 and a standard deviation of 0.85, the findings of this study indicate that teachers' self-efficacy is quite strong overall. Teachers' confidence in their abilities to instruct and handle difficulties in the classroom is reflected in this. Better teacher performance and effectiveness are directly correlated with high self-efficacy. According to Luo et al. [36] and Em et al. [37], and Alibakhshi et al. [42], high self-efficacy teachers are more likely to overcome challenges in the classroom and innovate in their pedagogical approaches, which would improve students' learning results.

# 4.6. Discussion of the Relationship between Digital Leadership Practices and Teachers' Self-Efficacy

One important factor influencing teachers' self-efficacy in the context of teaching in the twenty-first century is the digital leadership practices of school directors, according to Em et al. [38] and Em et al. [39]. Teachers' confidence in utilizing technology in the classroom can be increased by school directors who actively lead and offer technological assistance, including training and adequate resources [40], [41]. According to Yuan and Wang [16], teachers' self-efficacy can be increased by effective digital leadership that enhances their proficiency with digital tools.

This conclusion is further supported by earlier research, which demonstrates that principals who incorporate technology into school administration and management encourage teachers to use it in the classroom. School directors can allay teachers' fears of technology use and boost their confidence in experimenting with new teaching methods by offering ongoing support, such as training opportunities and suitable digital tools [15].

The national education policy should be in line with school directors' integration of digital leadership in the educational setting. The development of 21st-century skills is emphasized in education policies that support the use of technology in teaching and learning. School directors must thus comprehend the use of technology in both student learning and school management. Comprehensive education policies regarding the use of digital tools and the improvement of digital resource management in schools are required by this policy implication. Further research should be deepened by adding more relevant variables.

Digital leadership practices for school directors include the use of technology for professional development and school administration. School directors with strong digital abilities can promote teacher and student technology use and manage school resources more effectively. Teachers feel more comfortable utilizing technology in the classroom as a result, which boosts their self-efficacy. Additionally, this practice gives school directors the authority to continuously advise and assist teachers, especially when it comes to observing and assessing how technology is used in the classroom. The follow-up research should be conducted.

Digital technology training is essential for teachers to improve their abilities. Lack of thorough understanding of educational technology might make teachers feel insecure and make it harder for them to use digital technologies in the classroom. As such, the training implications point to the necessity of implementing ongoing training initiatives that give educators the technological know-how they require. The safe and efficient

use of technology, as well as digital classroom management, should be included in this training. Professional development training helps teachers become more proficient and self-assured in their use of technology, which in turn increases their self-efficacy in performing their teaching responsibilities, especially when it comes to digital leadership. The assessment research could be considered for more details.

#### 5. CONCLUSION

The study concludes that the high school directors' digital leadership practices are positively, albeit weakly and significantly correlated with the high school teachers' self-efficacy in teaching in Phnom Penh City, Cambodia. Even though Cambodian high school directors' digital leadership practices have an impact on teachers' self-efficacy, this link still needs to be strengthened, according to this result. Incorporating technology into the teaching and learning process can be better supported by principals who exhibit more effective digital leadership. For the Ministry of Education, Youth and Sport and relevant stakeholders, the consequences of this study are vital.

Designing and implementing professional development programs that aim to improve teachers' digital abilities and school directors' digital leadership quality can be done with the help of the findings. According to this study, training and professional development strategies should also be modified to emphasize digital leadership components. These adjustments have the potential to raise the standard of instruction and learning, bolster the abilities of teachers, and eventually improve student results.

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