

## Examining the influence of social factors on Cambodian high school teachers' self-efficacy and job performance

Sereyrath Em<sup>1</sup>, Sarom Mok<sup>2</sup>, Rany Sam<sup>3</sup>

<sup>1</sup>College of Education, The University of Cambodia, Phnom Penh, Cambodia

<sup>2</sup>Ministry of Education, Youth and Sport, Phnom Penh, Cambodia

<sup>3</sup>National University of Battambang, Battambang, Cambodia

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### Article Info

#### Article history:

Received 2024-12-25

Revised 2025-06-20

Accepted 2025-07-22

#### Keywords:

Cambodian education

Gender and age differences

Job performance

Social factors

Teachers' self-efficacy

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### ABSTRACT

The current study aims to examine the influence of social factors on the self-efficacy and job performance of Cambodian high school teachers, with a particular emphasis on the differences between gender and age groups. To achieve this, a quantitative descriptive method and a causal-comparative analysis were used with data obtained from 639 high school teachers working in four provinces in Cambodia. Specifically, four important social aspects were investigated: the impact of colleagues, education policy, the income of teachers, and the socio-economic background of teachers. The findings indicate that all social determinants have a considerable impact on the self-efficacy and performance of teachers, with salary making the most important contribution. However, there were no statistically significant differences in teachers' perceptions across gender and age groups. This means that all the teachers need additional payments as a priority. Consequently, these findings bring to light the general significance of social effects on teachers' performance and emphasize the necessity of making systemic adjustments in teacher compensation, policy implementation, and support mechanisms. In brief, theoretical and practical implications for educational development in Cambodia are offered, contributing to the expanding body of literature on teachers' living standards. Finally, future studies should employ a mixed-methods approach better to understand the same or different regions in the country.

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### Corresponding Author:

Sereyrath Em

College of Education, The University of Cambodia, Phnom Penh, Cambodia

Email: [sereyrathem.edu@gmail.com](mailto:sereyrathem.edu@gmail.com)

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## 1. INTRODUCTION

Teachers shape the future of a nation. Teachers prepare students for life and work by imparting knowledge and skills. In particular, high school is when students learn the necessary theories from various subjects that are the basis for working in various fields [1]. When teachers work hard and wholeheartedly, they can create students who are academically and morally responsible for society. Therefore, both teacher performance and student

academic performance are essential. Indeed, teacher education is key to a country's progress, so their performance should be encouraged, especially in developing countries. After all, they are the people who bring hope and aspiration to many classrooms and society at large. They are responsible for making students better, more productive human beings [2].

Currently, Cambodia is a developing country. Because of the civil war, the education system is not fully reestablished. As a result, many schools' problems concern society. The country's quality of education remains low because of the lack of qualified teachers, and teacher job performance is limited [3]. Consequently, many students must study at home or do not have the opportunity to access academia beyond their daily routine. It is essential to assess teachers' influence and increase their job performance to address this issue and achieve improved student learning outcomes. In this context, self-efficacy can influence teacher job performance because their confidence in their abilities affects their methods and energy in supporting students' learning [4].

### **1.1 Background and Context of Education in Cambodia**

Education had to start over without a formal structure, professional teaching staff, or systematic educational management [5]. Initially, Cambodians received assistance from foreign countries. Education in Cambodia has been rapidly restored, and building a new society has begun to take shape [6]. Alongside this progress, efforts must be made to expand vocational and technical education programs and teacher training [7]. Ultimately, the aim is for education to expedite national development, coordinated with the recruitment and allocation of budgetary resources and other facilities [6].

However, employment conditions for teachers in Cambodia remain undesirable, and educational workers are generally recruited without specialized skills in related curricula [8]. Moreover, the educational management system is also deficient, with provincial and district administrative levels immobilized or lacking the capacity to support primary education [9]. Although the Constitution states that the state shall promote social development, education, and health, and establish systems and policies suitable for development, efforts have not been sufficient in reality [10], [15].

Meanwhile, non-official education has become important since the election [10]. Achieving universal access to quality basic education is crucial to Cambodia's immediate economic and social development [11], [12]. While Cambodia does relatively well on some educational indicators, such as primary school completion, other indicators show serious problems [13]. For example, on international tests for reading or mathematics, eighth-graders in Cambodia score lower than their peers elsewhere in Southeast Asia, with struggling students scoring below sixth-grade levels in other countries [14]. Therefore, these problems need to be addressed appropriately via the inputs given from different factors, including teachers' self-efficacy and job performance [15].

### **1.2 Importance of Teacher Self-Efficacy and Job Performance**

Teaching is a highly demanding profession. Unlike other professions where people sit at a desk and make decisions without facing intense pressure, teaching involves providing

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information, and learners enter the classroom with high hopes of achieving their goals [15]. Indeed, teachers influence what students perceive as important in their development [16]. As a result, students expect much from their teachers, who must deliver quality education, even with limited resources. Furthermore, teachers are expected to boost the economy and improve social conditions, yet they can only succeed under the right circumstances [17].

In this context, teacher quality is essential for educational quality. Job performance generally represents how well a person meets job demands [18]. Consequently, improved teacher performance leads to greater student achievement. This improvement, in turn, can be supported through resources and motivation [19]. Moreover, beyond experience and education, internal and external factors influence self-efficacy and job performance [20]. One effective approach to help teachers succeed is recognizing their importance and supporting their motivation. According to traditional psychology, high self-efficacy is viewed as a source of motivation and effort, which leads to better performance. Ultimately, teacher performance is a key variable in improving the social conditions in which teaching is performed [21].

### **1.3 Role of Social Factors**

Social factors such as salary, education policy, colleagues, and socio-economic environment may influence self-efficacy and work motivation [15]. In education, social impacts include government regulations and education policies aimed at reform [17]. In developing countries, managing teacher salaries is a critical issue [22]. Since teachers often depend solely on their salaries, when these are low compared to other professions, their engagement in school and society may not be valued [15].

Therefore, encouragement within the educational organization through fair and experience-based promotion is important. Unfortunately, promotions sometimes depend on connections or money rather than merit [23]. As a result, poor performance may trigger disengagement, with few teachers continuing to support educational missions. Ultimately, breaching person-environment fit conditions at either policy or institutional levels may lead to systemic failure, resulting in students who are unprepared to contribute to national development [24].

### **1.4 Relevance of Exploring Demographic Differences**

Self-efficacy is a variable that receives significant attention from researchers studying teacher behavior and performance [25]. In many cases, some studies moderate the relationship between self-efficacy and job performance using demographic variables such as gender and age [26]-[27]-[28]-[29]. Additionally, previous studies have used variables like social support, stress, conflict resolution, and coping to explore this relationship [30].

With technological advances, self-efficacy is tested in various contexts, including distance learning and professions like journalism, nursing, and tourism [31], [32]. In the Cambodian context, research on teacher self-efficacy is common due to its link with national development [21]. Indeed, studies indicate that Cambodian teachers tend to have low self-efficacy [15]. To measure this, prior research has used mean scores and size tests to

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determine differences in self-efficacy among demographic groups [19]. These studies show that self-efficacy helps reduce negative perceptions about oneself or the task at hand [20].

Building on this foundation, the current study seeks to expand understanding of self-efficacy about performance by examining demographic variations. While many studies have validated demographic effects on performance, few have explored how demographic groups inform both self-efficacy and performance when moderated.

### **1.5 Research Objectives**

1. To examine how social factors, including colleague influence, education policies, salary, and socio-economic background, affect Cambodian high school teachers' self-efficacy and job performance.
2. To analyse whether there are significant gender differences in teachers' perceptions of how social factors influence their self-efficacy and job performance.
3. To investigate whether age significantly influences teachers' perceptions of social factors affecting their self-efficacy and job performance.

## **2. RESEARCH METHODOLOGY**

This section describes the research methods, including demographic and sampling techniques, and the data processing techniques employed. This section also explains applying a quantitative design to investigate Cambodian high school teachers' perspectives regarding societal impacts on their self-efficacy and job performance. The section then seeks to reveal significant patterns among gender and age groups by combining survey and causal-comparative designs. The comprehensive methodology guarantees the legitimacy and authenticity of the results while providing a systematic framework for comprehending the educational dynamics in Cambodia.

### **2.1. Research Design**

Using survey and causal-comparative approaches [32], this study employs a quantitative method to thoroughly examine teachers' perceptions of social influences on their self-efficacy and job performance. Specifically, to identify trends and patterns in the responses of a large sample size of 639 teachers, collected using multiple-stage sampling techniques (see Figure 1), the survey approach makes it easier to collect structured data from them. Furthermore, the study uses causal-comparative analysis to investigate the connections between dependent variables that include the teachers' self-efficacy and job performance, and independent variables, particularly gender and age. This way, the analytical framework offers a strong foundation for deriving important conclusions on the influence of social influences on teachers' professional experiences, in addition to making it easier to examine viewpoint differences depending on demographic features. Ultimately, the validity and reliability of the data are increased by using these quantitative approaches, which aid in our understanding of the relationship between social influences, teachers' self-efficacy, and teachers' job performance in Cambodia.

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## 2.2 Population and Sampling Techniques

Figure 1 below depicts the sampling procedure for selecting participants from Cambodia’s high school teacher population. Cambodia, situated in Southeast Asia, possesses a diversified educational landscape characterized by distinct problems and opportunities across its regions. Accordingly, this figure seeks to illustrate the process of selecting a representative sample of high school teachers from this diverse community.

Cambodia comprises four primary regions: the Central Plain, Tonle Sap, Coastal and Maritime, and Plateau and Mountains. Notably, every region has distinct geographical and socio-economic attributes affecting the educational landscape. To ensure balance, the clustering procedure is initiated by segmenting the entire population of high school teachers into four areas, guaranteeing equitable representation from each area.

Next, a province is randomly chosen from each region to refine the sample further. The chosen provinces were Kampong Cham from the Central Plain, Kampong Chhnang from Tonle Sap, Kampong Speu from the Plateau and Mountains, and Kampong Speu from the Coastal region. Focusing on these provinces, the investigation concentrates on certain manageable areas within each region, facilitating more detailed and region-specific conclusions.

Following this, in each selected province, two high schools were designated to symbolize the province’s educational environment. Then, a simple random sampling procedure was employed to select teachers from these high schools. Ultimately, this final phase guarantees that the selected teachers for the study accurately represent the wider population, yielding dependable data for comprehending the educational complications and requirements in Cambodia.

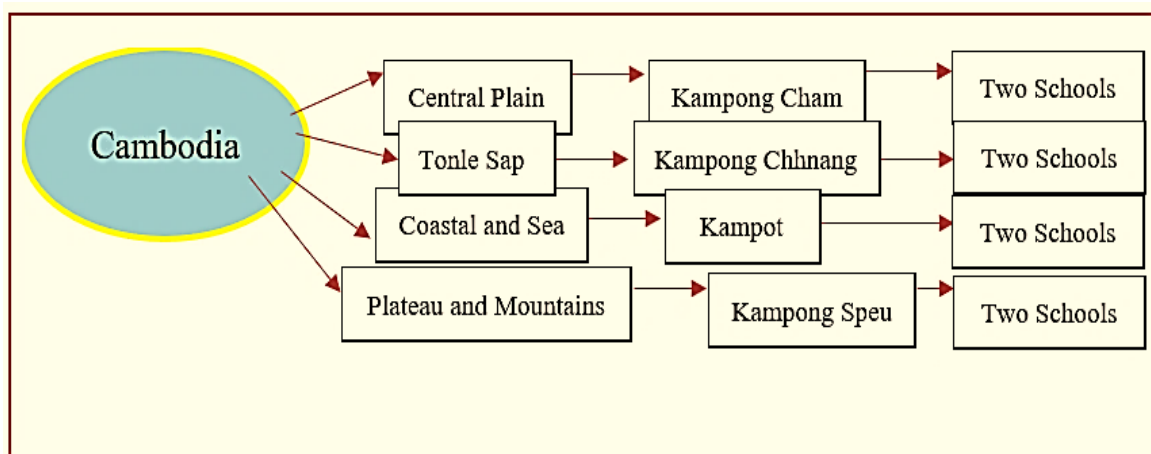


Figure 1. The process of clustering and simple random sampling of research samples

## 2.3 Data Collection Instrument

The current study employs a five-point Likert-scale questionnaire as its data collection instrument, meticulously crafted to elicit organized responses from high school teachers concerning their perspectives on social impacts on self-efficacy and job performance. The scale extends from 1 (Strongly Disagree) to 5 (Strongly Agree), enabling participants to convey differing degrees of agreement with each item. The questionnaire consists of meticulously crafted items, organized into pertinent constructs that correspond

with the study's aims. The instrument is a section of a bigger study. Three field experts, holding doctoral degrees, verified these items to ensure content clarity, relevance, and alignment with the research constructs. The tools were also tested during a pilot study to ensure their reliability, and factor analysis was also conducted to guarantee the psychometric properties. Utilizing this standardized instrument ensures uniformity in data collection and enhances the overall reliability and validity of the study.

## 2.4 Data Analysis

A comprehensive quantitative methodology was used for the data analysis of this study, which included survey and causal-comparative methods, along with the computation of means and standard deviations for each statement about teachers' opinions of social influences. To examine group differences, independent sample t-tests were used to identify differences by gender. Additionally, one-way ANOVA analyses were used to explore differences by age, and the data analysis tool was SPSS version 27.

## 3. RESULTS

The current study examined how social factors affect teachers' self-efficacy and job performance in Cambodian high schools. The results are divided into parts on demographics, data normalcy, societal factors, and gender and age inequalities. These findings shed light on how social dynamics affect teachers' professional experiences in distinct educational environments.

### 3.1 Participants' Demographic Information

The current study involved 639 high school teachers from four provinces in Cambodia: Kampong Cham, Kampong Chhnang, Kampong Speu, and Kampot. The participants represented diverse age groups and a balanced gender distribution, ensuring a comprehensive understanding of teachers' perceptions across different demographics, according to Em [21].

Table 1. Participants' Demographic Information

Demographics	Values	Number	Percentage
Gender	Male	309	48.40
	Female	330	51.60
Age Range	20-30 Years	99	15.50
	31-40 Years	217	34.00
	41-Over	323	50.50
Degree	High School Degree (HS)	98	15.30
	Bachelor's Degree (BA)	442	69.20
	Master's Degree (MA)	99	15.50
Province	Kampong Cham	143	22.40
	Kampong Chhnang	195	30.50
	Kampong Speu	162	25.40
	Kampot	139	21.80
Total Participants = 639			

As revealed in Table 1, the study encompassed 639 secondary school teachers from four provinces in Cambodia: Kampong Cham (22.40%), Kampong Chhnang (30.50%), Kampong Speu (25.40%), and Kampot (21.80%). The samples comprised 309 males (48.40%) and 330 females (51.60%), with age distribution as follows: 20-30 years (15.50%), 31-40 years (34.00%), and 41 years and over (50.50%). Regarding educational credentials, 98 participants (15.30%) held a high school diploma, 442 (69.20%) held a bachelor’s degree, and 99 (15.50%) held a master’s degree.

**3.2 Data Normal Distribution**

Table 2. Data Normality Checking

Variable	Skewness	SE Skewness	Kurtosis	SE Kurtosis
SIN1	- 0.68	0.097	2.13	0.193
SIN2	- 0.76	0.097	2.85	0.193
SIN3	- 0.48	0.097	2.22	0.193
SIN4	- 0.69	0.097	2.37	0.193

As revealed in Table 2, a normality check was conducted using skewness and kurtosis values for the four social influence variables (see code in Table 3). The skewness values ranged from - 0.48 to - 0.76, and the kurtosis values ranged from 2.13 to 2.85. According to Kline [33], data are considered approximately normal when skewness falls within  $\pm 1$  and kurtosis within  $\pm 3$ . Based on this guideline, all variables demonstrated acceptable levels of skewness and kurtosis. These results indicate that the distributions of all four variables are appropriately normal, satisfying the assumptions required for conducting parametric analyses such as descriptive statistics, independent samples *t*-tests, one-way ANOVA, and some other test types.

**3.3 Social Effects on Teachers’ Self-Efficacy and Teachers’ Job Performance**

The study examined the impact of social factors on teachers’ self-efficacy and job performance. Table 3 provides descriptive statistics across these factors, emphasizing their significant role in shaping teachers’ professional efficacy and overall job performance.

Table 3. Social Factors

Code	Statements	M	SD
SIN 1	My colleague teachers affect my self-efficacy, or performance.	3.85	0.53
SIN 2	Education policies affect my self-efficacy, or performance.	3.87	0.54
SIN 3	A teacher’s salary affects my self-efficacy, or performance.	3.98	0.56
SIN 4	The socio-economic background of the teacher affects my self-efficacy, or performance.	3.86	0.51
Overall		3.89	3.89

Table 3 presents data that examines teachers’ perceptions of social factors impacting their self-efficacy or performance across four variables. For SIN1, which reflects the

influence of teachers' perceptions, the mean score is 3.85 (SD = 0.53), falling within the high category. SIN2, which examines the effect of education policies, has a mean score of 3.87 (SD = 0.54), indicating a high level of influence. SIN3, focusing on the impact of a teacher's salary, shows a mean score of 3.98 (SD = 0.56), reflecting the highest impact on self-efficacy or performance. SIN4, which examines the impact of teachers' socio-economic background, also demonstrates a high mean score of 3.86 (SD = 0.51).

The findings indicate that social factors strongly influence teachers' self-efficacy and job performance, with all variables under social influences: colleagues, education policies, salary, and socio-economic background, demonstrating high mean scores. Among these, salary has the highest impact, emphasizing its critical role in shaping teachers' perceptions. The overall high score underscores the significant influence of social factors.

Table 4. Independent Samples t-Test Results for Social Influence Variables by Gender

Variable	Sex	M	SD	<i>t</i> (df)	Sig.	Mean Difference	95% CI for Difference
SIN1	Male	3.86	0.55	0.508 (637)	0.61	0.021	[-0.062, 0.104]
	Female	3.84	0.52				
SIN2	Male	3.89	0.54	0.958 (637)	0.33	0.041	[-0.044, 0.127]
	Female	3.85	0.56				
SIN3	Male	3.94	0.60	-1.519 (637)	0.12	-0.067	[-0.154, 0.020]
	Female	4.01	0.52				
SIN4	Male	3.89	0.51	1.318 (637)	0.18	0.053	[-0.026, 0.133]
	Female	3.83	0.51				

Table 4 investigated whether male and female high school teachers in Cambodia differ in their perceptions of how social factors affect their self-efficacy and job performance. The four social factors examined were: influence of colleagues, education policies, teacher salary, and socio-economic background. Independent samples *t*-tests were conducted to explore gender differences for each factor.

The results indicated that male teachers (M = 3.86, SD = 0.55) and female teachers (M = 3.84, SD = 0.52) reported similar perceptions of how their colleagues affect their self-efficacy or performance. The difference was insignificant,  $t(637) = 0.508$ ,  $p$ -value = 0.61. This suggests that gender does not play a significant role in how teachers perceive peer influence on their professional performance.

Male teachers (M = 3.89, SD = 0.54) slightly rated the impact of education policies higher than female teachers (M = 3.85, SD = 0.56), but the difference was again not statistically significant,  $t(637) = 0.958$ ,  $p$ -value = 0.33. This result implies that both male and female teachers perceive education policies as having a similarly strong impact on their efficacy and job performance.

Interestingly, female teachers (M = 4.01, SD = 0.52) reported slightly higher influence of salary on their self-efficacy and performance than male teachers (M = 3.94, SD = 0.60). Although this difference appears meaningful, it was not statistically significant,  $t(637) = -1.519$ ,  $p$ -value = 0.12. However, this result may suggest a trend worth further exploration, as the impact of salary may be perceived more strongly among female teachers.

Male teachers (M = 3.89, SD = 0.51) rated the impact of socio-economic background slightly higher than female teachers (M = 3.83, SD = 0.51), but the difference was not

statistically significant,  $t(637) = 1.318$ ,  $p$ -value = 0.18. This indicates that both groups view socio-economic background as an influential factor, with no significant gender-based differences.

Table 5. Perceptions of Social Influence Variables by Age

Code		Sum of Squares	df	Mean Square	F	Sig.
SIN1	Between Groups	0.073	1	0.073	0.258	0.61
	Within Groups	181.504	637	0.285		
	Total	181.577	638			
SIN2	Between Groups	0.275	1	0.275	0.917	0.33
	Within Groups	190.683	637	0.299		
	Total	190.958	638			
SIN3	Between Groups	0.724	1	0.724	2.306	0.12
	Within Groups	199.924	637	0.314		
	Total	200.648	638			
SIN4	Between Groups	0.455	1	0.455	1.737	0.18
	Within Groups	166.869	637	0.262		
	Total	167.324	638			

Table 5 presents the results of a one-way ANOVA examining age differences in teachers' perceptions of SIN on their self-efficacy and performance. The analysis was conducted across four variables: SIN1, SIN2, SIN3, and SIN4.

For SIN1, which assesses the influence of colleagues, the F-value is 0.258, and the  $p$ -value is 0.61, indicating no significant difference in the influence of colleagues across different age groups. Similarly, SIN2, reflecting the effect of education policies, shows an F-value of 0.917 and a  $p$ -value of 0.33, suggesting that age does not significantly affect teachers' perceptions of educational policies.

In SIN3, concerning the impact of teachers' salaries on self-efficacy, the F-value is 2.306 with a  $p$ -value of 0.12, indicating no significant differences between age groups, though the result is approaching significance. Finally, for SIN4, which examines the socio-economic background's influence, the F-value is 1.737, with a  $p$ -value of 0.18, indicating no significant differences across age groups regarding the impact of socio-economic background on self-efficacy.

#### 4. DISCUSSION

The results from Table 2 indicated that social factors significantly impact instructors' self-efficacy and job performance. Teachers consistently recognized the impact of peers, educational policies, remuneration, and socio-economic status as significant factors in their perception of professional competence and efficacy. This finding is in line with Em [15]. Among these elements, compensation demonstrated the most significant perceived influence, underscoring the essential importance of financial stability in molding teachers' confidence and motivation. The continuously elevated perceptions across all factors highlight the complex nature of social influences on teaching practice. These findings correspond with current studies highlighting the significance of supportive social and policy

frameworks in promoting teacher efficacy and improving overall job performance. These findings are similar to Em et al. [23].

According to Table 4, examining gender discrepancies in teachers' perceptions of social factors influencing their self-efficacy and job performance indicated no statistically significant differences between male and female high school teachers across all four categories. Both groups expressed similar perspectives on the impact of colleagues, educational policies, teacher remuneration, and socio-economic status, indicating that gender does not significantly affect teachers' perceptions of these external factors, along with Rodríguez-Cifuentes et al. [26], who found the similarity. Minor variations in mean scores were noted, with female instructors exhibiting slightly elevated perceptions of wage impact and male teachers reflecting greater influence from socio-economic background; however, none of these differences achieved statistical significance. The findings indicate a widespread agreement among all genders about the significance of social factors in influencing self-efficacy and performance, underscoring the necessity for inclusive policy measures that target these elements uniformly rather than through gender-specific strategies. As such, these findings align with Schwoerer and May [27].

The one-way ANOVA results indicated no statistically significant differences in instructors' judgments of social factors influencing their self-efficacy and performance among different age groups. Teachers across all ages expressed comparable perspectives on colleagues' impact, educational policy, remuneration, and socio-economic status. Although the variable concerning teacher salaries approached significance [15], the variances were inadequate to demonstrate a substantial age-related variation. The data indicate that perceptions of social impacts on self-efficacy and work performance are generally consistent across age groups, suggesting that these elements have a consistently perceived effect irrespective of teachers' age. These findings are similar to those of Lim et al. [28] and Polo-Peña et al. [29].

## 5. CONCLUSION

The current study shows that social factors, specifically coworkers, educational policies, remuneration, and socio-economic background, significantly influence Cambodian high school teachers' self-efficacy and job performance. Salary was recognized as the most significant component, underscoring the critical role of financial remuneration in improving teacher motivation and perceived efficacy. The results reveal that gender and age do not significantly influence teachers' judgments of these social elements, implying a consensus within demographic groups. The discovered patterns highlight the significant impact of systemic and contextual factors on the professional effectiveness of teachers in Cambodia's secondary school sector. Both male and female teachers still prioritize salary in their daily lives. This implies that their payment is inappropriate, and if the payment increases, their teaching self-efficacy increases, pushing the improvement of their job performance, teaching effectiveness. The final implication is the improvement of student learning outcomes, which is a basic need for the country's development as a whole.

Given these findings, it is advised that policymakers and educational stakeholders prioritize enhancements in teacher remuneration and address the wider socio-economic and

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institutional factors that affect teacher performance. Reforms must prioritize establishing equal, transparent, and meritocratic promotion and support mechanisms that enhance the professional environment for all teachers, irrespective of gender or age. Moreover, continuous investment in educational policies that promote collaborative professional environments and acknowledge socio-economic inequities can strengthen teachers' self-efficacy and performance, thereby improving educational outcomes nationwide.

## ACKNOWLEDGEMENTS

The authors express profound appreciation to all individuals and organizations that contributed to the successful completion of this study. Their gratitude is extended to the respondents who generously allocated their time and provided invaluable insights, which were the foundation of this study. Their gratitude is also extended to colleagues, mentors, and supporters who offer direction, encouragement, and resources during the research process. Thus, their combined efforts have guaranteed the study's quality and pertinence. Finally, and honestly, the authors thank the editors and reviewers of MISRO for making this piece available in the scholarly world.

## REFERENCES

- [1] C. Martinez, "Developing 21st century teaching skills: A case study of teaching and learning through project-based curriculum," *Cogent Educ.*, vol. 9, no. 1, pp. 1–16, Dec. 2022, doi: 10.1080/2331186x.2021.2024936.
  - [2] E. A. Dare, K. Keratithamkul, B. M. Hiwatig, and F. Li, "Beyond content: the role of STEM disciplines, real-world problems, 21st century skills, and STEM careers within science teachers' conceptions of integrated STEM education," *Educ. Sci.*, vol. 11, no. 11, pp. 1–22, Nov. 2021, doi: 10.3390/educsci11110737.
  - [3] F. Bao, K. Martens, and M. Windzio, "Education policy between persistence and change: grand transformations processes and cultural spheres in the case of Cambodia," *Front. Educ.*, vol. 10, pp. 1–13, May 2025, doi: 10.3389/educ.2025.1604793.
  - [4] K. Heng and K. Sol, "Academic research in Cambodia: Progress, challenges, and ways forward," *Cambodian J. Educ. Res.*, vol. 1, no. 2, pp. 6–23, Dec. 2021, doi: 10.62037/cjer.2021.01.02.02.
  - [5] S. C. Gonley, T. Schmidle, and J. B. Shedd, "Teacher participation in the management of school systems," *Teach. Coll. Rec. Voice Scholarsh. Educ.*, vol. 90, no. 2, pp. 259–280, Dec. 1988, doi: 10.1177/016146818809000208.
  - [6] S. Em, S. Khan, and N. Nun, "Education system in Cambodia: a brief review from the prehistoric period to the present, and an education strategic plan for the future," *FIRE Forum Int. Res. Educ.*, vol. 7, no. 3, pp. 141–164, Feb. 2023, doi: 10.32865/fire202273320.
  - [7] B. Lan, R. Sam, V. Keo, and W. Roeut, "Academic adjustment of freshmen in Cambodian higher education institutions: a systematic literature review," *J. Gen. Educ. Humanit.*, vol. 3, no. 2, pp. 169–196, Apr. 2024, doi: 10.58421/gehu.v3i2.203.
  - [8] S. Em, P. Chin, S. Khan, and N. Nun, "Teacher education in Cambodia: formulae, challenges, and suggestions for improvement," *J. -Salam*, vol. 6, no. 2, pp. 90–104, Aug. 2022, doi: 10.37249/assalam.v6i2.401.
  - [9] P. Chin, R. Sam, M. Serey, and S. Em, "Exploring the benefits and drawbacks of directing undergraduates' self-study pursuits: an in-depth analysis through literature review," *J. Gen. Educ. Humanit.*, vol. 3, no. 2, pp. 117–132, Mar. 2024, doi: 10.58421/gehu.v3i2.210.
  - [10] V. Neau, "The teaching of foreign languages in Cambodia: a historical perspective," *Lang. Cult. Curric.*, vol. 16, no. 3, pp. 253–268, Sep. 2003, doi: 10.1080/07908310308666673.
  - [11] K. Chansopheak, "Basic education in Cambodia: quality and equity," in *The Political Economy of Educational Reforms and Capacity Development in Southeast Asia: Cases of Cambodia, Laos and Vietnam*, Y. Hirotsato and Y. Kitamura, Eds., Dordrecht: Springer Netherlands, 2009, pp. 131–152. doi: 10.1007/978-1-4020-9377-7\_9.
  - [12] P. Sovachana, "Progress and challenges of education in Cambodia today," in *Cambodia: Progress and Challenges since 1991*, P. Sothirak, G. Wade, and M. Hong, Eds., ISEAS Publishing, 2012, pp. 292–319.
-

- Accessed: Jul. 09, 2025. [Online]. Available: <https://www.degruyterbrill.com/document/doi/10.1355/9789814379830-024/pdf?licenseType=restricted>
- [13] C. Tan, "Education reforms in Cambodia: issues and concerns," *Educ. Res. Policy Pract.*, vol. 6, no. 1, pp. 15–24, Jun. 2007, doi: 10.1007/s10671-007-9020-3.
- [14] C. Brock and L. P. Symaco, *Education in Southeast Asia*. Symposium Books Ltd, 2011.
- [15] S. Em, "Opinion: factors to consider education reforms in Cambodia," *Cambodianess*. Accessed: Jul. 09, 2025. [Online]. Available: <https://cambodianess.com/article/opinion-factors-to-consider-education-reforms-in-cambodia>
- [16] R. Sam *et al.*, "Examining principal leadership in Cambodian high schools: a case study approach," *Eur. J. Educ. Manag.*, vol. 8, no. 1, pp. 13–29, Mar. 2025, doi: 10.12973/eujem.8.1.13.
- [17] S. Em, "Opinion: the impact of qualified teachers and school principals on education quality," *Cambodianess*. Accessed: Jul. 09, 2025. [Online]. Available: <https://cambodianess.com/article/opinion-the-impact-of-qualified-teachers-and-school-principals-on-education-quality>
- [18] S. Em, S. Mok, and R. Sam, "Perspectives on directors' transformational leadership: insights from Cambodian high school teachers," *J. Gen. Educ. Humanit.*, vol. 3, no. 4, pp. 411–432, Nov. 2024, doi: 10.58421/gehu.v3i4.328.
- [19] S. Em, S. Mok, and R. Sam, "Exploring Cambodian teachers' views on transformational leadership of school directors," *J. Soc. Knowl. Educ. JSKE*, vol. 6, no. 1, pp. 76–89, Feb. 2025, doi: 10.37251/jske.v6i1.1364.
- [20] S. Em, S. Mok, and R. Sam, "Influence of directors' transformational leadership on teachers' self-efficacy and job performance in Cambodian high schools," *BMC Proc.*, vol. 19, no. 9, pp. 1–4, Jun. 2025.
- [21] S. Em, "Effectiveness of school directors' transformational leadership on teachers' self-efficacy and job performance in Cambodia," The University of Cambodia, Phnom Penh, 2025. Accessed: Jul. 09, 2025. [Online]. Available: <https://ejournal.educationalfields.com/index.php/CJESSOL/article/view/63>
- [22] J. K. Debrah, D. G. Vidal, and M. A. P. Dinis, "Raising awareness on solid waste management through formal education for sustainability: a developing countries evidence review," *Recycling*, vol. 6, no. 1, pp. 1–21, Jan. 2021, doi: 10.3390/recycling6010006.
- [23] S. Em, N. Nun, and S. Phann, "Qualities, personal characteristics, and responsibilities of qualified teachers in the 21st century," *Cambodian J. Educ. Res.*, vol. 1, no. 2, pp. 49–63, Dec. 2021, doi: 10.62037/cjer.2021.01.02.05.
- [24] S. Khan, S. Mok, R. Sam, S. Mam, S. Em, and D. Pen, "Teachers' perceptions on directors' instructional leadership in secondary resource schools: regional variations and impacts on teachers' commitment in Cambodia," *Eur. J. Contemp. Educ. E-Learn.*, vol. 2, no. 6, pp. 259–274, Nov. 2024, doi: 10.59324/ejceel.2024.2(6).17.
- [25] R. M. Klassen and V. M. C. Tze, "Teachers' self-efficacy, personality, and teaching effectiveness: A meta-analysis," *Educ. Res. Rev.*, vol. 12, pp. 59–76, Jun. 2014, doi: 10.1016/j.edurev.2014.06.001.
- [26] F. Rodríguez-Cifuentes, J. Farfán, and G. Topa, "Older worker identity and job performance: the moderator role of subjective age and self-efficacy," *Int. J. Environ. Res. Public Health*, vol. 15, no. 12, pp. 1–13, Dec. 2018, doi: 10.3390/ijerph15122731.
- [27] C. E. Schwoerer and D. R. May, "Age and work outcomes: The moderating effects of self-efficacy and tool design effectiveness," *J. Organ. Behav.*, vol. 17, no. 5, pp. 469–487, Sep. 1996, doi: 10.1002/(sici)1099-1379(199609)17:5<469::aid-job772>3.0.co;2-3.
- [28] S. Lim, Y. Song, Y. Nam, Y. Lee, and D. Kim, "Moderating effect of burnout on the relationship between self-efficacy and job performance among psychiatric nurses for COVID-19 in national hospitals," *Medicina (Mex.)*, vol. 58, no. 2, pp. 1–11, Jan. 2022, doi: 10.3390/medicina58020171.
- [29] A. I. Polo-Peña, D. M. Frías-Jamilena, and M. L. Fernández-Ruano, "Influence of gamification on perceived self-efficacy: gender and age moderator effect," *Int. J. Sports Mark. Spons.*, vol. 22, no. 3, pp. 453–476, Jun. 2021, doi: 10.1108/ijsms-02-2020-0020.
- [30] W.-H. Kim, G.-M. Park, and K.-S. Kim, "Effects of authentic leadership on employees' turnover intention and self-efficacy in South Korea's casino industry: the moderating roles of employees' gender and age," *J. Qual. Assur. Hosp. Tour.*, vol. 23, no. 1, pp. 162–175, Jan. 2022, doi: 10.1080/1528008x.2020.1854922.
- [31] J. K. Fatima, P. Ghandforoush, M. Khan, and R. D. Masico, "Role of innovativeness and self-efficacy in tourism m-learning," *Tour. Rev.*, vol. 72, no. 3, pp. 344–355, Aug. 2017, doi: 10.1108/tr-02-2017-0019.
- [32] R. Heale and A. Twycross, "Validity and reliability in quantitative studies," *Evid. Based Nurs.*, vol. 18, no. 3, pp. 66–67, Jul. 2015, doi: 10.1136/eb-2015-102129.
- [33] R. B. Kline, *Principles and practice of structural equation modeling*. Guilford Publications, 2023.