



Impact of teachers' self-efficacy on their work engagement: A case of Vietnam

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Abstract

Recent research across various educational settings has consistently highlighted the statistically positive effects of teachers' efficacy on their level of work engagement. However, an in-depth analysis of the literature reveals an important gap in this study in relation to Vietnamese education. Hence, the present study aims to establish a relationship by investigating the relationship between teachers' efficacy and their work engagement within the framework of the Vietnamese educational system. The study used both the Teachers' Sense of Efficacy Scale (TSES) and the Utrecht Work Engagement Scale (UWES) to gather quantitative data from 354 high school teachers across 6 different high schools. The findings revealed a positive relationship between teachers' efficacy and their work engagement through a combination of factorial analysis and path analysis. These findings are significant because they highlight the value of incorporating self-efficacy concepts into training programs and creating encouraging environments to increase teachers' levels of engagement with their jobs. It is essential to prioritize the use of random sampling techniques in future research initiatives in order to generate a sample that is more extensive and applicable to a broader range of situations. Future researchers may explore incorporating qualitative research methodologies to better understand the impact of teacher efficacy by capturing the unique narratives and perspectives of teachers. This approach would provide a complete understanding of the dynamic relationship between teacher efficacy and work engagement.

Keywords: Factor analysis, High schools, Path analysis, Teachers' sense efficacy, Teachers' work engagement, Vietnam.

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Contents

1. Introduction	769
2. Theoretical Framework and Hypotheses	769
3. Methods	772
4. Results	773
5. Discussion	774
6. Conclusion	775
7. Implications	776
8. Limitations	776
References	776

Contribution of this paper to the literature

This study broadens our comprehension of how teachers' self-efficacy positively influences their work engagement within the context of Vietnamese high school education. This contribution has the potential to inform educational practices, policies and discussions in the Vietnamese system.

1. Introduction

The need to satisfy strict accountability standards has been increasing for both teachers and students in the modern educational environment. The implementation of effective school reform presents a challenge for education systems and teachers' professional development and self-efficacy play an essential role in maintaining the efficacy of education (Cocca & Cocca, 2022). The provision of teachers with the fundamental skills and knowledge needed to successfully adapt to changing paradigms in education is made possible through professional development (Zee & Koomen, 2016). Continuous professional development and training help teachers provide high-quality instruction and effectively assist students' learning in the context of emerging new teaching styles, technologies and evaluation strategies (Bray-Clark & Bates, 2003). School administrators must make significant investments in comprehensive and continuous professional development programmes to ensure that their teaching staff is equipped to meet the changing needs of education (Wang, 2022). Moreover, fostering teacher self-efficacy is essential for school reform success. Self-efficacy pertains to an individual's cognitive appraisal of their capacity to attain particular objectives and effectively accomplish assigned undertakings. Teachers who possess a robust sense of self-efficacy are inclined to confront obstacles with passion and commitment which results in the improvement of teaching methods, increased student engagement and enhanced academic achievement (Li, Liu, Chen, & Yao, 2022).

The importance of teacher efficacy as an essential factor in determining teacher effectiveness has unquestionably been highlighted repeatedly by research. Teacher efficacy is identified as a teacher's belief in their capability to positively impact students' learning and development (Tschannen-Moran & Hoy, 2001, 2007). This belief influences a teacher's actions, instructional choices and persistence in the face of challenges. Several studies have illustrated that teachers with elevated levels of efficacy are generally more motivated, engaged and dedicated to their profession (Skaalvik & Skaalvik, 2014; Tsouloupas, Carson, Matthews, Grawitch, & Barber, 2010). They are more inclined to embrace innovative teaching methods, establish great expectations for their students and proactively seek solutions to overcome challenges in the process of learning (Glackin & Hohenstein, 2018). On the other hand, low teacher efficacy can hinder a teacher's effectiveness (Shu, 2022). Teachers who doubt their abilities may be less inclined to try new instructional approaches have lower expectations for their students and may struggle to manage classroom challenges effectively. Understanding and promoting teacher efficacy is crucial for educational leaders and policymakers. Providing teachers with opportunities for professional development, mentorship and collaborative support can help enhance their sense of efficacy (Li et al., 2022). Enhancing teacher efficacy can also be facilitated by a supportive school environment where teachers feel appreciated and recognised for their contributions (Bray-Clark & Bates, 2003; Smith-Moyler & Grooms, 2022).

Teachers are expected to believe in their own abilities in educational environments worldwide especially when engaging in a variety of duties related to teaching (Bandura, 1997). The effectiveness of teachers has been viewed as a significant component of their professionalism, influencing their daily practices and interactions within the classroom (Cocca & Cocca, 2022; Duffin, French, & Patrick, 2012). In this regard, recent studies have progressively centered on the efficacy of teachers concerning their effectiveness in fostering student engagement, managing the classroom and employing teaching strategies (Tsouloupas et al., 2010). In recent years, the Vietnamese government has implemented new criteria and skills for high school teachers in order to promote holistic student growth and development. These initiatives are part of the government's broader efforts towards socioeconomic advancement and comprehensive educational reform (Nguyen et al., 2020; Thao et al., 2022). Thus, high school teachers in Vietnam are presently obligated to determine notable professional proficiency and effectiveness. Teacher efficacy serves as a critical indicator of teaching quality and must be enhanced to ensure improved learning outcomes for students in Vietnam's educational system (Glackin & Hohenstein, 2018).

The current body of literature lacks a comprehensive examination of the relationship between teachers' efficacy and work engagement in Vietnamese high schools despite the well-recognized advantages of self-efficacy for both teachers and students. Therefore, this study investigates the relationship between teachers' self-efficacy and their work engagement within the specific context of Vietnam's education system. The study aims to explore how teachers' beliefs in their own capabilities and effectiveness influence their level of engagement in their instructional roles. It also aims to contribute valuable insights that can inform educational practices and policies in Vietnam and potentially have implications for similar contexts elsewhere. Finally, the study offers practical insights and implications for educational stakeholders in Vietnam. This includes educators themselves, school administrators, policymakers and researchers. This study seeks to provide evidence-based recommendations for fostering a more engaged and effective teaching workforce, thus enhancing the overall quality of education in Vietnam by understanding the interplay between self-efficacy and work engagement in the Vietnamese educational context.

2. Theoretical Framework and Hypotheses

The objective of this study is to investigate the impact of teachers' self-efficacy on their level of engagement with the teaching process. The following research question is formulated in order to address this purpose: What is the effect of teachers' self-efficacy on their work engagement in Vietnam?

2.1. Teachers' Self-Efficacy

Self-efficacy is based on social cognition theory which emphasises the relevance of cognitive processes in how people perceive, understand and respond to their surroundings (Bandura, 1977). Social cognition theory suggests that people are not passive recipients of external influences but rather active agents who can influence and shape their behavior, thoughts and emotions (Bandura, 1986). Self-efficacy pertains to an individual's confidence in their ability to carry out specific actions and attain desired results (Bandura, 2018). It is the belief that people have in

their capacity to complete tasks successfully, deal with problems, and achieve goals. This belief plays a critical role in determining what actions people take, how much work they put in, and how resilient they are when faced with problems (Bray-Clark & Bates, 2003; Fathi, Greenier, & Derakhshan, 2021). In educational contexts, teachers' efficacy encompasses their beliefs and confidence in their capacity to proficiently fulfill their professional duties and positively impact their students' learning and development (Glackin & Hohenstein, 2018; Skaalvik & Skaalvik, 2014). It is a key component of a teacher's mindset and influences their instructional practices, classroom management and overall approach to teaching (Htang, 2018; Thompson & Woodman, 2019; Tschannen-Moran & Hoy, 2001).

Tschannen-Moran and Hoy (2001) developed the TSES to assess teachers' sense of efficacy in accordance with the aforementioned definitions. The TSES assesses the level of self-efficacy among teachers in three distinct areas: instructional strategies (IS), classroom management (CM) and student engagement (SE).

IS refers to their ability to effectively use a wide range of instructional methods, techniques and strategies to facilitate student learning. Teachers with high efficacy for instructional strategies have confidence in their capacity to select and implement appropriate teaching approaches that cater to their students' diverse learning needs. They believe that they can design engaging and effective lessons, use various instructional resources and adapt their teaching style to optimize student understanding and achievement.

CM pertains to teachers' confidence in their capacity to sustain a positive and conducive learning environment within their classrooms. Teachers with high efficacy for classroom management are confident in their skills to establish clear rules and expectations, effectively handle student behavior challenges and promote a supportive classroom environment. They believe they can effectively address disciplinary issues and foster a conducive learning environment where students can focus on their studies and thrive academically.

SE centers on teachers' confidence in their capability to actively motivate their students in the learning process. Teachers with high efficacy for student engagement are confident in their capacity to pique students' interest, stimulate curiosity and foster a love for learning. They maintain the conviction that they possess the ability to create and implement initiatives that promote the active engagement of students and motivate them to take ownership of their educational progression. Teachers with high efficacy for student engagement strive to make their lessons relevant, meaningful and enjoyable thus enhancing students' intrinsic motivation and commitment to learning.

2.2. Teachers' Work Engagement

Engagement is a mental state in which people feel satisfied and energized as a result of being completely immersed in and deeply committed to their work (Schaufeli, 2013). Work engagement is a constructive and dynamic cognitive state characterized by excitement, commitment and intense absorption in the numerous obligations involved with one's employment leading to an enjoyable and fulfilling experience (Bakker, Albrecht, & Leiter, 2011). When individuals are engaged in their occupation, they are fully involved and immersed in what they do, feeling a sense of purpose and engagement in their tasks. Teacher job engagement in the educational sector pertains to the constructive cognitive and affective state that teachers undergo when they are completely captivated and committed to their instructional responsibilities (Burić & Macuka, 2018; Li et al., 2022). Engaged teachers are enthusiastic about their work, demonstrate elevated levels of commitment and are committed to providing their students with the best possible learning experiences. Generally, work engagement is a positive state that has been linked to various positive effects for both employees and organizations such as increased job satisfaction, higher levels of performance, reduced absenteeism and improved organizational commitment (Fitriasari & Ummah, 2020; Liu & Huang, 2019; Maksum, Purwono, & Hidayatullah, 2022; Salanova, Agut, & Peiró, 2005; Shu, 2022). It is seen as a critical factor in promoting well-being, productivity and overall success in the workplace.

According to the previous definition, Schaufeli, Bakker, and Salanova (2006) devised an instrument known as the UWES to measure job engagement, encompassing three key components: vigor (VI), dedication (DE) and absorption (AB).

VI signifies elevated levels of vitality and mental resilience while performing work-related activities (Schaufeli, 2013). Workers who are engaged in their work are passionate, proactive and tenacious. When performing their jobs, people who score well on vigor typically show a lot of energy, excitement and long-lasting resilience. When it comes to their work-related tasks, people with low vigor scores show less enthusiasm and vitality.

DE represents a strong and enduring feeling of enthusiasm and pride towards one's professional endeavors (Schaufeli, 2013). People who score highly on devotion show a strong sense of professionalism (Bakker et al., 2011; Meyer & Gagnè, 2008). Additionally, they often experience feelings of enthusiasm and pride in their work. On the other hand, individuals with low dedication do not strongly identify their work as they do not perceive it as meaningful, inspiring or challenging. They also lack feelings of enthusiasm and pride towards their profession.

AB refers to the state of complete focus and immersion in one's work characterized by a perception of time passing quickly and difficulties in disengaging from tasks (Schaufeli, 2013). Individuals who score high on absorption often find themselves happily engrossed in their work, experiencing a deep sense of immersion that makes it challenging to detach from their tasks. On the other hand, individuals with low absorption scores do not experience a profound sense of immersion or engagement in their work. They can easily detach from their tasks and remain aware of their surroundings, including the passage of time.

2.3. Relationship between Teachers' Self-Efficacy and their Work Engagement

Self-efficacy is a multi-dimensional concept and is considered a fundamental mechanism of human agency enabling individuals to consciously control their own behavior and life circumstances (Bandura, 2018). Research suggests that self-efficacy remains a substantial predictor of academic outcomes even when considering an individual's inherent ability (Bandura, 1997; Schaufeli & Bakker, 2010; Wiederkehr, Darnon, Chazal, Guimond, & Martinot, 2015). It plays a central role in shaping how individuals act, reflect and effectively address demanding and stressful circumstances (Bray-Clark & Bates, 2003; Minghui, Lei, Xiaomeng, & Potmešilc, 2018). Teachers' perceptions in designing, implementing and accomplishing educational goals are referred to as their efficacy in the

field of education (Bray-Clark & Bates, 2003; Skaalvik & Skaalvik, 2014). Self-efficacy among teachers includes confidence in raising student achievement, getting them involved in the classroom, providing useful assignments and accomplishing learning objectives (Miraflor & Lyndon, 2022; Skaalvik & Skaalvik, 2010). The level to which teachers believe in their own abilities affects not only how they teach and conduct themselves but also how their students learn and behave (Cai, Wang, Bi, & Tang, 2022). People who are very confident in their abilities are more likely to choose difficult tasks, devote more time and energy to achieving their goals and persevere despite failures (Shu, 2022).

Work engagement denotes an optimistic and rewarding psychological state associated with one's profession (Schaufeli et al., 2006). It is associated with workplace productivity and engagement and has attracted a lot of academic interest in educational settings in recent years. This implies that actively engaged teachers are more inclined to participate in school activities and willingly assume extra responsibilities beyond their classroom responsibilities (Cai et al., 2022; Granziera & Perera, 2019; Schaufeli, 2013). In an academic setting, engagement usually relates to students' conscious participation in their education, their level of effort and how well they use their surroundings to support learning (Bakker et al., 2011; Krause & Coates, 2008; Salanova et al., 2005; Shu, 2022). Researchers and educational officials are increasingly focusing on teachers' engagement since it has a substantial impact on students' accomplishments and is linked to instructors' effectiveness. Therefore, it follows that dedicated teachers are less likely to leave the field (Bakker & Bal, 2010; Maksum et al., 2022).

Prior research has established that the level of commitment exhibited by teachers towards their occupation is positively influenced by their self-perceived effectiveness in the role while it is negatively affected by the experience of emotional exhaustion (Burić & Macuka, 2018; Li et al., 2022; Salanova et al., 2005; Shu, 2022). Work engagement encompasses maintaining a dynamic connection with one's job and experiencing a sense of purpose, enthusiasm and the embrace of challenges. It is closely linked with intrinsic motivation and yields positive outcomes for teachers (Bakker & Bal, 2010; Ryan & Deci, 2000; Wang, 2022). Teachers who are actively involved in their field display higher levels of energy and productivity showing a robust capacity to effectively manage daily obstacles. On the other hand, teachers with low levels of engagement may perceive external control as dominant often driven by external rewards and the avoidance of penalties (Liu & Huang, 2019; Ryan & Deci, 2000). There exists a positive relationship between teacher work engagement and teacher self-efficacy while a negative relationship is observed between teacher job engagement and burnout (Meyer & Gagnè, 2008; Miraflor & Lyndon, 2022; Skaalvik & Skaalvik, 2010). Numerous empirical investigations have consistently demonstrated a positive relationship between work engagement and desirable consequences such as a reduced inclination to leave the teaching profession (Bakker & Bal, 2010; Li et al., 2022; Shu, 2022; Skaalvik & Skaalvik, 2014).

The most significant factor influencing career engagement among teachers is their sense of efficacy. The personal qualities and abilities that teachers can use in a variety of learning situations throughout their teaching careers are linked to teacher efficacy (Glackin & Hohenstein, 2018; Shu, 2022; Zee & Koomen, 2016). It enables teachers to enhance their teaching methods, interactions with students, collaboration with peers and the overall school environment. Higher self-efficacy teachers are more likely to engage with their students more and express greater satisfaction with their jobs (Liu & Huang, 2019; Skaalvik & Skaalvik, 2014). They show greater perseverance in overcoming challenges and employ more creative approaches to help students understand complex subjects. Research suggests that teacher efficacy contributes to work engagement and fosters a positive educational environment (Liu & Huang, 2019; Zee & Koomen, 2016). Constructive career engagement is crucial given its connection to teacher efficiency and positive educational outcomes. Teachers with strong self-efficacy show proficiency in organization adaptability in managing setbacks and a nurturing and supportive approach towards their students (Burić & Macuka, 2018; Minghui et al., 2018; Miraflor & Lyndon, 2022). Furthermore, teacher well-being and emotional aspects have a significant impact on teachers and their instructional quality and this connection is vital for students' academic performance and overall learning experience (Glackin & Hohenstein, 2018; Wang, 2022).

In addition, recent studies have indicated that self-efficacy may contribute to enhance teacher effectiveness through various channels. Teachers who possess positive efficacy beliefs demonstrate a greater inclination to effectively use the abilities obtained during in-service training in their instructional practices (Skaalvik & Skaalvik, 2014). Higher teaching self-efficacy among educators is associated with a greater propensity to investigate alternative teaching approaches, seek improvements in instructional strategies and conduct more extensive experimentation with instructional materials. Furthermore, self-efficacy beliefs can exert a beneficial influence on a teacher's ability to effectively navigate challenging situations (Tsouloupas et al., 2010). Teachers who possess strong self-efficacy beliefs regarding their teaching capabilities are more inclined to take risks, embrace novel approaches and persevere with demanding strategies to enhance student achievement. These self-efficacy beliefs can also impact a teacher's determination, resilience in the face of obstacles and the degree of stress or anxiety experienced in diverse situations (Granziera & Perera, 2019). Moreover, self-efficacy beliefs can have a significant influence on the effectiveness of training programs designed to enhance teachers' knowledge and skill acquisition (Li et al., 2022). Heightened self-efficacy is associated with improved post-training performance in both cognitive tasks and interpersonal skills which are essential components of effective teaching. Teachers with heightened self-efficacy levels also demonstrated elevated professional dedication implying that they could possess greater motivation to attend, actively engage with, and extract knowledge from in-service training sessions. Furthermore, high self-efficacy teachers are more persistent in assisting struggling students and are less critical of students' mistakes. Teachers exhibiting strong self-efficacy tend to be present in schools with better performance and their self-efficacy might serve as a link between a school's atmosphere, professional environment and educational skills (Cai et al., 2022). In a nutshell, the findings from earlier studies indicate a significant relationship between teacher efficacy and outcomes such as teacher engagement, performance and enjoyment of teaching (Shu, 2022) as well as favorable effects on student results encompassing motivation and their own self-efficacy (Cocca & Cocca, 2022).

2.4. Research Hypotheses

The results of the aforementioned studies have illustrated that the relationship between teachers' self-efficacy and their engagement in teaching has been a significant subject of inquiry in the field of educational psychology.

These studies have consistently revealed that teachers with elevated self-efficacy levels often exhibit increased work engagement as they possess a stronger sense of competence to confront challenges and are more dedicated to attaining positive results in their teaching roles. This favorable link between teachers' self-efficacy and their engagement in teaching holds significant implications for the overall effectiveness of the educational environment. The study aims to examine how teachers' efficacy influences their engagement in teaching within Vietnamese high schools. Drawing upon the insights gained from numerous studies, three hypotheses have been formulated to assess the primary research question established for this study:

H₁: There is a relationship between teachers' self-efficacy and teachers' vigor of work engagement.

H₂: There is a relationship between teachers' self-efficacy and teachers' dedication to work engagement.

H₃: There is a relationship between teachers' self-efficacy and teachers' absorption of work engagement.

3. Methods

3.1. Research Design

The present investigation used a correlational methodology to examine the relationships between teachers' efficacy and their work engagement. In this research, the components of teacher efficacy were considered independent variables while the components of work engagement were considered dependent variables. Path analyses were undertaken to examine the anticipated relationships within a proposed causal model.

3.2. Participants

The selected sample for this study consisted of 354 Vietnamese teachers comprising 179 females and 175 males who were selected from 6 distinct high schools. The participants collectively possessed an average teaching experience of 6.72 years. The male participants had an average age of 32.16 years while the female participants had an average age of 31.14 years. The participants were sourced from diverse academic backgrounds. The surveys were distributed voluntarily to the participants and the responses to the TSES and UWES surveys were treated as completely confidential and anonymous.

3.3. Instruments

Over the past few years, the TSES and UWES have emerged as the primary instruments for assessing both teachers' self-efficacy and their work engagement. They have been extensively validated and used in various studies across different occupational settings including teachers in the different settings. They have proven to be a trustworthy and valid instrument for assessing teachers' efficacy and job engagement providing useful insights on teacher efficacy and engagement levels as well as the elements that may influence their work experiences. Therefore, the TSES and UWES were used to examine teachers' efficacy and their work engagement. To gather data from 397 participants, both instruments were translated into Vietnamese. The translation procedure was carried out by two translators who possessed proficiency in multiple languages and had expertise in teaching terminology.

The 24-item version of the TSES (Tschannen-Moran & Hoy, 2001) was used to assess three distinct factors of teaching efficacy: **CM** (e.g., "How well can you establish routines to keep activities running smoothly?"), **SE** (e.g., "How much can you do to motivate students who show low interest in school work?") and **IS** (e.g., "How well can you provide appropriate challenges for very capable students?"). Each factor included 8 items and participants evaluated them using a five-point Likert scale ranging from 1 (never) to 5 (very frequently). The 9-item version of UWES (Schaufeli et al., 2006) was used to evaluate three distinct factors of work engagement: **VI** (e.g., "At my job, I feel strong and vigorous"), **DE** (e.g., "I am enthusiastic about my job") and **AB** (e.g., "I feel happy when I am working intensely"). Participants are obligated to provide their responses to the items using a Likert scale ranging from 1 (never) to 5 (very often).

3.4. Data Analysis

3.4.1. Dimension of Teachers' Self-Efficacy

The original TSES was checked for internal consistency before both EFA (exploratory factor analysis) and CFA (confirmatory factor analysis) were performed. Based on Cronbach's alpha coefficients, these evaluations indicated that 7 items from the 24-item scale (specifically items 2, 7, 12, 15, 16, 21, and 22) should be excluded due to their low item-total correlations (< 0.30). The remaining 17 items across eight subscales were employed for EFA. The KMO (Kaiser-Meyer-Olkin) measure was calculated at 0.84 and Bartlett's test of sphericity ($\chi^2_{(97)} = 3156.41, p < 0.000$) suggested that the factor analysis conducted on the 17-item scale yielded satisfactory results (Hair, Black, Babin, & Anderson, 2010). The findings from EFA revealed a three-component structure characterized by eigenvalues exceeding a threshold of 1 (CM = 4.33, IS = 2.64, and SE = 2.01) collectively representing 52.18% of the overall variance. Each item was assigned to its respective original subscale. Nonetheless, items 1, 10 and 23 were subsequently excluded due to their limited communalities and loadings which were all under 0.50 across the three factors.

An EFA was performed to investigate the possible latent factor structure of the 14-item measure. The KMO measure of sampling adequacy yielded a value of 0.85 indicating a high level of adequacy for conducting factor analysis on the 14-item scale. Additionally, Bartlett's test of sphericity ($\chi^2_{(91)} = 3266.44, p < 0.000$) provided further evidence that the factor analysis was suitable for the dataset. EFA results showed a three-factor configuration with eigenvalues greater than 1 (CM = 4.22, IS = 2.62, and SE = 2.27) accounting for 65.13 percent of the total variance. Factor 1 (CM) comprised a set of five items, each exhibiting factor loadings varying from 0.69 to 0.78. Factor 2 (IS) consisted of five items with factor loadings varying from 0.68 to 0.76. Factor 3 (SE) encompassed four items, displaying factor loadings varying from 0.72 to 0.78. All items demonstrate discriminant capacity as indicated by their adjusted item-total correlation values exceeding 0.30. In addition, all values of Cronbach's alpha were greater than 0.70 ($\alpha = 0.86$ for CM, $\alpha = 0.84$ for IS, and $\alpha = 0.84$ for SE). The CFA results for the whole TSES (14 items) verified the same three-factor structure. The fit indices for the model were

remarkably high: $\chi^2 = 164.3$, $df = 74$, $\chi^2/df = 2.22$, $p = 0.000$, $TLI = 0.96$, $CFI = 0.97$, and $RMSEA = 0.04$. The results show that the model exhibits a satisfactory level of compatibility with the data indicating that the three-factor solution adequately captures the underlying factor structure of the TSES.

3.4.2. Dimensions of the Utrecht Work Engagement Scale

The factor structure of the 9-item UWES was investigated using EFA. The $KMO = 0.80$ and the results of Bartlett's test of sphericity ($\chi^2(36) = 1691.16$, $p < 0.000$) revealed that factor analysis was appropriate. The EFA results revealed a three-component structure with eigenvalues above the threshold of 1 ($AB = 3.59$, $VI = 1.64$, and $DE = 1.09$) explaining 70.32 percent of the total variance. Each item was assigned to the original subscale to which it belonged. The first factor (AB) consisted of three items, each of which exhibited factor loadings ranging from 0.71 to 0.81. The second factor (VI) comprised three elements, each of which displayed factor loadings ranging from 0.65 to 0.88. The third factor, (DE) contained three items, each of which showed factor loadings ranging from 0.70 to 0.74. The item-total correlation values were adjusted to exceed the threshold of 0.50 indicating a robust discriminant capability. Moreover, it is worth noting that all of the Cronbach's alpha coefficients are above the threshold of 0.70 ($\alpha = 0.78$ for AB, $\alpha = 0.80$ for VI, and $\alpha = 0.76$ for DE). The CFA results provided empirical support for the consistent three-component structure of the UWES. The model's fit indices were commendable: $\chi^2 = 33.4$, $df = 24$, $\chi^2/df = 1.39$, $p = 0.000$, $TLI = 0.99$, $CFI = 0.99$, and $RMSEA = 0.02$. The study's findings suggest that the model demonstrated a reasonable fit to the data, therefore supporting the suitability of the three-factor solution for comprehending the factor structure of the UWES.

3.4.3. Path Analysis

The results from factor analyses determined the factors of teachers' efficacy and the three factors of teachers' work engagement. The CFA model is illustrated to verify the model fit. Path analyses were done further to test the hypothesized relationships between factors in a proposed causal model and to confirm or reject the designed hypotheses of this study. The model's adequacy was evaluated through various goodness-of-fit indicators and standardized path coefficients were presented to illustrate the strength and direction of the relationships between factors. The significance threshold was established at $p < 0.05$.

4. Results

The present study aims to investigate the effect of teachers' efficacy on their work engagement among teachers at Vietnamese high schools. The CFA results in Figure 1 show that the theoretical model is consistent with the data. The fit indices of the model were deemed to be excellent ($\chi^2 = 485.3$, $df = 215$, $\chi^2/df = 2.25$ (Tabachnick & Fidell, 2014), $TLI = 0.94$ (Hu & Bentler, 1999), $CFI = 0.95$ (Garver & Mentzer, 1999), and $RMSEA = 0.04$ (Steiger, 2007). The findings indicated that the model exhibited a strong fit with the data and was adequate for interpreting the relationships between teachers' efficacy and their work engagement. Table 1 displays the results of the path analyses. All standardized path coefficients ranged from 0.37 to 0.90 and the values of the critical ratio (C.R.) were greater than 1.90 (Garver & Mentzer, 1999).

The first hypothesis (H1) was to examine the potential association between teachers' efficacy and their job engagement. The analysis of path coefficients yielded noteworthy findings specifically highlighting the significant effect of teachers' efficacy on the dimension of work engagement known as "vigor". The findings showed that teachers' efficacy for SE had significantly positive influences on their VI ($\beta = 0.77$, $p < 0.001$), DE ($\beta = 0.90$, $p < 0.001$), and AB ($\beta = 0.65$, $p < 0.001$). This outcome underscores a positive relationship between teachers' belief in their own capabilities and their heightened enthusiasm and energy invested in their work roles. This finding can be interpreted as a validation of the notion that when teachers possess a robust sense of self-efficacy and a conviction in their ability to overcome challenges and achieve goals, they are more likely to exhibit a robust and energetic engagement with their professional responsibilities.

The second hypothesis (H2) was to examine whether there is a relationship between teachers' efficacy and teachers' dedication to work engagement. When one looks deeper into the path coefficient analysis results, one remarkable finding becomes clear that teachers' efficacy has a notably positive impact on the aspect of work engagement known as "dedication". The findings of the study revealed that the efficacy of teachers for IS had a significantly positive influence on their levels of VI ($\beta = 0.48$, $p < 0.001$), DE ($\beta = 0.23$, $p < 0.01$) and AB ($\beta = 0.45$, $p < 0.001$). This observation serves as a noteworthy validation of the intrinsic relationship between teachers' belief in their own competencies and their profound dedication to their professional roles. The finding underscores that teachers who have a robust sense of self-efficacy are more likely to exhibit emotional engagement in their professional endeavors showing a deep commitment to their students, subjects and the broader educational process. The relationship between self-efficacy and devotion suggests that teachers who have the self-assurance to overcome obstacles and perform their duties well are able to form a strong relationship with their profession. Teachers who possess high levels of self-efficacy are more capable of overcoming obstacles, grasping educational opportunities and pursuing excellence in their teaching. Their dedication is boosted by the knowledge that they have to make a significant difference as they overcome challenges. The interdependent connection between self-efficacy and dedication highlights the significant influence that teachers' beliefs in their own skills have on their levels of motivation and engagement.

The third hypothesis (H3) was to investigate if there is a relationship between teachers' efficacy and their absorption of work engagement. The results from the analysis of path coefficients reveal the positive influence of teachers' efficacy on absorption. The findings showed that teachers' efficacy for CM had significantly positive influences on their VI ($\beta = 0.41$, $p < 0.001$), DE ($\beta = 0.37$, $p < 0.01$) and AB ($\beta = 0.61$, $p < 0.001$). This discovery underscores a fascinating interplay between teachers' beliefs in their own capabilities and their ability to immerse themselves wholeheartedly in their work. The findings indicate that teachers who possess strong confidence in their own capabilities are more likely to be deeply engaged in their work, displaying an enhanced capacity to fully immerse themselves in their teaching. This relationship between self-efficacy and absorption suggests that when teachers possess the confidence to navigate challenges and attain desired outcomes, they are inclined to have a

higher probability of facing a state of flow where time seems to pass quickly and they become completely engrossed in their activities. Teachers with elevated self-efficacy are better positioned to adapt to new situations, embrace innovative approaches and tackle complex problems with enthusiasm. Their absorption in their work is intensified by the conviction that they are capable of making a meaningful impact. This reciprocal relationship between efficacy and absorption underscores the intricate ways in which teachers' beliefs shape their immersion in their professional roles.

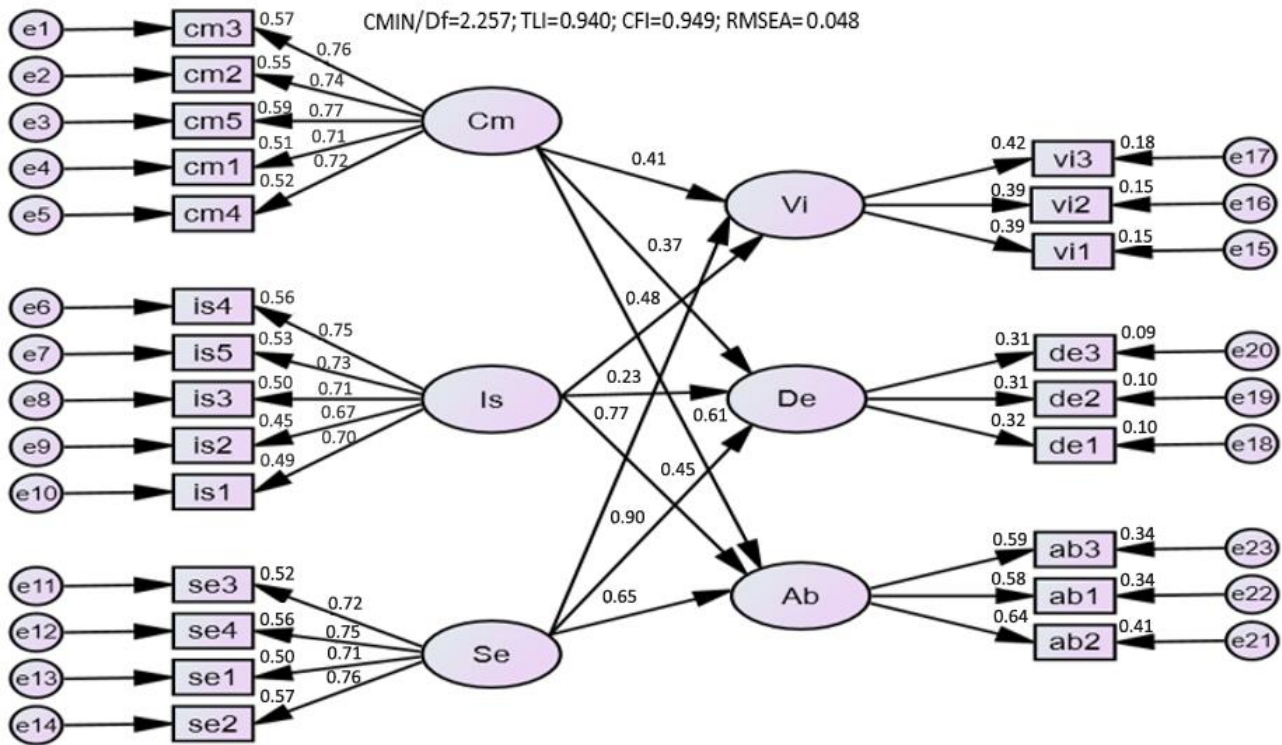


Figure 1. Path analysis of the CFA model.

Note: "SE = Efficacy for student engagement; IS = Efficacy for instructional strategies; CM = Efficacy for classroom management; VI = Vigor; DE = Dedication; AB = Absorption".

Table 1. Standardized Coefficients and hypothesis testing results.

Hypotheses	Path	Standardized coefficients	S.E.	Critical ratio (C.R.)	Results
H1	Vi <--- Se	0.77**	0.06	7.88	Supported
	Vi <--- Is	0.48**	0.04	6.13	
	Vi <--- Cm	0.41**	0.04	5.57	
H2	De <--- Se	0.90**	0.06	6.66	Supported
	De <--- Is	0.23*	0.03	2.65	
	De <--- Cm	0.37**	0.04	3.97	
H3	Ab <--- Se	0.65**	0.05	11.72	Supported
	Ab <--- Cm	0.61**	0.05	11.75	
	Ab <--- Is	0.45**	0.04	9.54	

Note: *p < 0.01, **p < 0.001.

"SE = Efficacy for student engagement; IS = Efficacy for instructional strategies; CM = Efficacy for classroom management; VI = Vigor; DE = Dedication; AB = Absorption".

5. Discussion

The present study aims to explore the impact of teachers' self-efficacy on their work engagement in Vietnam's educational environment. The data collected from 387 teachers from 9 high schools focused on two variables: teachers' self-efficacy and teachers' work engagement. The first variable comprised three factors: SE, IS and CM. The second variable consisted of three factors: VI, DI and AB. The results indicated that all three hypotheses were supported by the data. The conclusion drawn from the three hypotheses indicates that there is a relationship between teachers' self-efficacy and their work engagement among teachers in Vietnam. The results of this study align with current research undertaken in different countries (Bakker & Bal, 2010; Cai et al., 2022; Granziera & Perera, 2019; Li et al., 2022; Minghui et al., 2018; Miraflor & Lyndon, 2022; Moreira-Fontán, García-Señorán, Conde-Rodríguez, & González, 2019; Shu, 2022; Skaalvik & Skaalvik, 2014; Wang, 2022) which also indicated that there was a significantly positive influence on teachers' work engagement when teachers have higher self-efficacy. For example, a study conducted by Granziera and Perera (2019) showed a mutual connection between teachers' efficacy and their work engagement exhibiting their reciprocal influence across time. Furthermore, the research also revealed indirect reciprocal associations in which the initial level of teacher efficacy seemed to forecast subsequent levels of work pleasure by means of engagement. On the other hand, initial work satisfaction seemed to predict later teacher self-efficacy through the medium of engagement. These current findings significantly enhance our comprehension of the motivational mechanisms that underlie the development of teachers' self-beliefs, engagement and work satisfaction. Another study done by Minghui et al. (2018) showed compelling insights into the intricate interplay between work engagement and teacher efficacy. Their findings underscored the profound impact of social relationships and support networks on teachers' levels of engagement and belief in their abilities within the educational context. This statistical exploration revealed that these variables are closely intertwined suggesting a complex network of relationships within this context. Such insights highlight the potential impact of social support on fostering work engagement and enhancing teacher efficacy emphasizing the multifaceted nature of these interactions.

It is intriguing to note that this impact remains consistent even within the unique cultural framework of Vietnam. The observed relationship between self-efficacy and work engagement maintains its significance despite the cultural distinctions that set Vietnam apart from other countries (Truong, Hallinger, & Sanga, 2017). This suggests that the connection between teachers' beliefs in their abilities and their enthusiastic participation in their roles transcends cultural boundaries underlining the universal nature of this phenomenon. This finding contributes to in-depth knowledge of the underlying methods that promote teacher engagement highlighting the robustness and applicability of the observed link across a wide variety of cultural situations.

The relationship between teachers' efficacy and teacher vigor, a dimension of work engagement, has been an issue of interest in educational research. Teachers with elevated levels of self-efficacy are more likely to have a sense of confidence in their ability to instruct and exhibit motivation when confronted with the natural challenges associated with their profession (Liu & Huang, 2019). This positive self-belief has been indicated to be associated with greater levels of teacher vigor which represents higher levels of energy, enthusiasm and mental resilience while performing teaching-related activities. Educators who possess a positive and confident perception of their own capabilities are inclined to engage in their profession with eagerness and dedication. Furthermore, they are more inclined to hold the conviction that they possess the capacity to exert a constructive impact on the educational experiences of their students (Zee & Koomen, 2016). The correlation between teachers' self-efficacy and their enthusiasm underscores the importance of nurturing self-efficacy beliefs among educators as it can lead to heightened classroom engagement and improved overall well-being (Burić & Macuka, 2018). This implies that teachers with a robust belief in their capacity to engage students effectively also show increased enthusiasm and energy for their professional responsibilities.

The relationship between teachers' efficacy and teacher dedication has been a subject of investigation in educational research. Teachers who have a higher sense of self-efficacy are more likely to feel capable and confident in their abilities which can lead to increased dedication to their profession (Skaalvik & Skaalvik, 2014). Research has indicated that teachers with elevated degrees of self-efficacy are more inclined to exhibit heightened dedication towards their educational responsibilities (Shu, 2022). Teachers who possess a strong belief in their ability to exert a beneficial influence on their students' achievements are more inclined to dedicate themselves both emotionally and intellectually to their profession. This link between teachers' efficacy and their dedication underscores the importance of cultivating and supporting teachers' self-beliefs to foster a more dedicated and engaged teaching workforce (Liu & Huang, 2019; Mirafior & Lyndon, 2022; Shu, 2022). This research established a positive relationship between teachers' efficacy in using instructional strategies and the level of commitment evident in their work engagement. This indicates that educators who have confidence in their ability to use effective teaching techniques are more inclined to demonstrate a strong dedication to their teaching duties.

The relationship between teachers' efficacy and teacher absorption indicates that teachers with elevated self-efficacy are more prone to feeling confident and capable which in turn can contribute to heightened absorption in their work (Granziera & Perera, 2019). Teacher absorption involves complete focus and immersion in their teaching tasks, experiencing a state of flow and enjoyment during their work (Bray-Clark & Bates, 2003; Li et al., 2022; Minghui et al., 2018). This underlines the importance of nurturing teachers' self-beliefs to enhance their work engagement and overall effectiveness in the classroom (Cai et al., 2022; Granziera & Perera, 2019). The study suggests that teachers who possess a high level of proficiency in classroom management are more likely to be deeply engaged and absorbed in their instructional practices.

These findings collectively underscore the substantial effect of teachers' efficacy on various dimensions of work engagement. The results indicate that when teachers believe in their abilities to engage students, use effective teaching strategies and manage classrooms skillfully, they exhibit enhanced vigor, dedication and absorption in their work roles. These relationships imply that enhancing teachers' confidence in these crucial domains might have a substantial impact on their professional engagement and effectiveness.

6. Conclusion

The present study shows that the exploration of the relationship between teachers' efficacy and their professional engagement in the context of Vietnam's educational context reveals valuable insights into the dynamics that influence teacher performance, job satisfaction and overall effectiveness within the classroom. This relationship is of paramount importance as it sheds light on the factors that contribute to creating a motivated, dedicated and enthusiastic teaching workforce. In the specific context of Vietnam, where education assumes paramount significance in determining the trajectory of the nation's future, it is crucial to understand the complex correlation between self-efficacy and professional engagement within the teaching profession.

The results demonstrate a statistically significant correlation between teachers' efficacy and their work engagement has wide-ranging implications for both educational policy and practice. The factors contributing to this relationship are multifaceted. Teachers who possess elevated levels of self-efficacy are inclined to establish more ambitious objectives and demonstrate increased perseverance when confronted with obstacles. This resilience and proactive attitude align with the attributes of work engagement as they foster a sense of accomplishment and personal growth. Additionally, teachers who have confidence in their abilities are more likely to actively pursue innovative educational approaches and actively participate in continuous professional development initiatives which increase their level of engagement at work. In a nutshell, recognizing the relationship between teachers' efficacy and their engagement in the specific context of Vietnam has the potential to catalyze positive transformations within the education system. The motivation and empowerment of teachers in Vietnam can significantly influence the educational context and contribute to the development of future leaders and learners by fostering a culture of belief in one's capabilities and creating opportunities for meaningful professional growth.

7. Implications

The results of this study highlight a significant relationship between instructors' efficacy and their level of work engagement. This has significant implications for various stakeholders in Vietnam's educational landscape, including teachers, faculty members and teacher trainers. For teachers, recognizing the vital role of self-efficacy in enhancing work engagement can prompt them to focus on developing their self-efficacy beliefs (Bray-Clark & Bates, 2003). This could involve setting achievable goals, seeking professional development opportunities and celebrating success to boost their confidence and enthusiasm in their roles. Faculty members can leverage these findings to design more effective support systems for teachers. Faculty members can enhance overall work engagement by fostering an environment that nurtures and validates teachers' self-efficacy (Shu, 2022). An effective and engaging process can be facilitated by offering specific resources, mentorship and platforms for knowledge sharing. Teachers can incorporate the concept of self-efficacy into their training programs. This might involve workshops, reflective practices and guidance on overcoming challenges aimed at strengthening teachers' confidence in their abilities. School administrators can establish supportive and empowering environments that promote open dialogue, collaboration and the sharing of best practices which can significantly impact teachers' efficacy and subsequently their engagement. Moreover, policymakers can design interventions that nurture and sustain teacher self-efficacy, thereby fostering an environment conducive to work engagement. Providing opportunities for skill development, mentorship and recognition can contribute to boosting teachers' confidence. In general, the results of the study emphasize the significance of acknowledging and fostering teacher efficacy in order to promote increased work engagement. By embracing these implications, teachers, faculty members and teacher trainers in Vietnam can collaboratively contribute to a more engaged and effective educational environment.

8. Limitations

The present study offers valuable insights into the relationship between teachers' efficacy and their work engagement is not without its limitations. These limitations underscore the requirement for future research to build upon and increase the understanding of this complex relationship in the educational context of Vietnam. Firstly, the study's use of a convenience sample introduces a potential source of bias. Convenience sampling may not accurately represent the broader population of teachers in Vietnam. Future studies should prioritize the use of random sampling techniques to ensure a more representative and generalizable sample. This approach would enhance the study's external validity allowing for more confident extrapolation of findings to the entire teacher population. Secondly, this study's scope was limited to just examining the relationship between teachers' efficacy and their level of involvement at work. While this provides a foundational understanding, it leaves important dimensions unexplored. For a more holistic understanding of the influence of teacher efficacy, forthcoming research should strive to explore its connections with diverse outcomes including teacher performance, job satisfaction, and organizational commitment. By delving into these multifaceted connections, researchers can uncover the nuanced ways in which teacher efficacy influences different aspects of teachers' professional lives. Additionally, the study's findings are confined to a specific cultural and contextual setting, namely Vietnam's educational environment. The distinctive cultural nuances, teaching methods and societal factors specific to Vietnam could potentially shape the apparent connection between teachers' efficacy and their work engagement. Future research should consider cross-cultural comparisons and explore how this relationship might manifest in diverse educational contexts to enhance the robustness and applicability of the findings. Furthermore, the present study focuses primarily on quantitative methodologies while this approach offers statistical insights, it might overlook qualitative nuances and personal experiences that could provide a richer understanding of the relationship. Future studies could incorporate qualitative research methods to capture teachers' narratives and perspectives providing a more holistic view of how teacher efficacy and work engagement intersect.

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