The Influence of Teachers' Self-Efficacy on Work Engagement:

A Study of Preschool Teachers

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Approval Form

This research paper attached here to, entitled "The Influence of Teachers' Self-Efficacy on Work Engagement: A Study of Preschool Teachers" prepared and submitted by Lee Xin Wei in partial fulfilment of the requirements for the Bacheor of Early Childhood Education (Hons) is hereby accepted.

Date: 22/09/2023

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Declaration

I declare that the material contained in this paper is the end result of my own work and that due acknowledgement has been given in the bibliography and references to ALL sources be they printed, electronic or personal.

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Abstract

Preschool teachers play a vital role in creating a supportive and effective learning environment, which is widely recognised in early childhood education field. However, the shortage of preschool teachers is impacting the quality of early childhood education in Malaysia. Moreover, there is limited research on relationship between preschool teachers' self-efficacy and work engagement, despite work engagement being a critical factor of preschool teachers' retention. Hence, this study was aimed to investigate the relationship of preschool teachers' self-efficacy and work engagement. This study applies Job Demands-Resources (JD-R) model to examine the research questions. The hypothesis underlying posits a significant correlation between preschool teachers' self-efficacy and work engagement. This study employed quantitative research method and Pearson correlation coefficient as research design. The study included 73 teachers from diverse range of preschools in Penang area by using convenient sampling technique. Teachers' Sense of Efficacy Scale (TSES) by Tschannen-Moran and Woolfolk Hoy (2001) and Utrecht Work Engagement Scale (UWES-17) by Bakker and Schaufeli (2003) were the two questionnaires used in this study. The findings presented that the three subscales of teachers' self-efficacy, which are efficacy in instructional strategies ($r= 0.368$, $p= 0.001$), efficacy in classroom management ($r= 0.341$, $p= 0.003$) and efficacy in student engagement ($r= 0.415$, $p= <0.001$) were positively correlated to work engagement. This result highlighted that preschool teachers with higher self-efficacy are more likely to remain engaged to their work and foster a positive learning environment, which benefiting both teachers and children. Thus, it is recommended for preschool administrators to consider insights related to teachers' personal development and well-being to create a more engaged and productive preschool environment, thereby enhancing the quality of early childhood education.

Keywords: Teachers' self-efficacy, work engagement, preschool, instructional strategies, classroom management, student engagement

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List of Abbreviations

DV	Dependent variable
IV	Independent variable
JD-R	Job Demands-Resources
TSES	Teachers' Sense of Efficacy Scale
UWES	Utrecht Work Engagement Scale

Chapter I

Introduction

Introduction

This study aims to study the influence of preschool teachers' self-efficacy on their work engagement. This chapter consists of the background of the study, problem statement, research objectives, research questions, research hypothesis, significance of study as well as operational and conceptual definitions of the key terms in this study.

Background of Study

Self-efficacy describes individual's belief in their ability to accomplish their personal goals and overcome obstacles through substantial effort and long-term commitment (Jiao et al., 2022). It is proven by previous studies that an individual's self-efficacy can affect his or her intrinsic motivation, job satisfaction and work engagement (Federici & Skaalvik, 2011; Yakin & Erdil, 2012). The term self-efficacy, specifically in the context of teaching, refers to teachers' belief towards their ability in teaching as well as in handling and managing professional-related tasks successfully, even while dealing with unmotivated students (Barni et al., 2019). Teachers with higher sense of self-efficacy have been found to experience burnout less frequently and to be happier in their work which leads to greater students' motivation, academic growth and achievement (Lazarides & Warner, 2020). Teachers' self-efficacy affects not only on students' performances, but also has significant impact on teachers' work engagement (Jiao et al., 2022).

Work engagement describes a state in which employees show strong identification with their work with fulfilling and positive experience, which motivating individuals to invest significant effort and energy into their job responsibilities (Schaufeli & Bakker, 2003). This work-related state of mind helps employees in demonstrating high level of vigor, dedication and absorption towards their task (Schaufeli & Bakker, 2003). Within the context of early

childhood education, teachers' work engagement is related to instructional effectiveness and job performance that can help teachers to facilitate and support children's learning (Bostic et al., 2023). According to a report based on a survey conducted among leaders in early childhood education (Spreeuwenberg, 2022), high levels of teacher engagement increase their probability of job satisfaction and decrease their probability of leaving their positions, which can increase the level of consistency and continuity in the classroom.

The study conducted by Mejia et al. (2021) has shown that when teachers possess a strong belief in their own abilities in performing their teaching tasks effectively, their confidence level increases, leading to heightened engagement and commitment towards their work. This finding aligns with the understanding that teachers' self-efficacy will certainly have potential influence on the level of their engagement, dedication to invest their time and energy in promoting children's development and their commitment to their personal improvement towards their job (Jiao et al., 2022). According to the study done by Hsing-Ming et al. (2017), teachers' sense of connection to the teaching profession can be strongly influenced by their level of self-confidence in their abilities as educators. Teachers' identification with the profession is strengthened when they have a high confidence level in their ability to instruct children, manage the classroom and have a good impact on children's lives (Hsing-Ming et al., 2017). Affective commitment, a more intense emotional commitment, is a result of this strong identification, which boosts their motivation, work engagement and overall job satisfaction as teachers (Hsing-Ming et al., 2017). Therefore, this research aims to contribute to the existing knowledge by further investigating the influence of preschool teachers' self-efficacy on their work engagement.

Problem Statement

Malaysia has experienced an ongoing shortage of preschool teachers, which has proved

to be a concerning issue for Malaysia's educational system (Rahmatullah et al., 2021). The shortage of teachers has been identified as one of the causes that affect the quality of early childhood education in Malaysia (Kasinathan, 2023). In fact, one of the potential contributing factors to the teacher shortage is the high turnover rate. According to the research conducted by Tayama et al. (2018), work engagement has emerged as a predictor of intention to stay employed in the field, which highlights the relevance in addressing the issue of teacher shortage. Therefore, it is essential to recognise the professional and personal factors such as teachers' self-efficacy that contribute to work engagement among preschool teachers to effectively support in early childhood education by increasing teachers' retention as well as maintaining high-quality teacher-child interactions that foster children's development. Furthermore, there were limited empirical research exists to examine the influence of teachers' self-efficacy on their work engagement (Jiao et al., 2022), especially in early childhood context. There have been studies exploring related factors such as teacher motivation, job satisfaction and burnout (Win & Min, 2020; Turkoglu et al., 2017; Kim & Burić, 2020). In Malaysia, there were also studies that have looked at the relationship between teachers' self-efficacy and job satisfaction (Mokhtar et al., 2021) and burnout (Liyana & Nur Indah, 2022) among primary and secondary school teachers. However, the relationship between self-efficacy and work engagement in the teaching profession, particularly within early childhood education, is still relatively underexplored. Thus, further research is necessary to address this research gap and it is crucial to investigate the potential influence of self-efficacy on preschool teachers' work engagement, specifically in terms of their vigor, dedication and absorption levels.

Research Objectives

To examine the relationship of preschool teachers' self-efficacy and their work engagement.

Research Questions

To achieve the aforementioned objectives, the research questions are drafted as:

1) Is there any significant relationship between preschool teachers' self-efficacy in instructional strategies and their work engagement?
2) Is there any significant relationship between preschool teachers' self-efficacy in classroom management and their work engagement?
3) Is there any significant relationship between preschool teachers' self-efficacy in student engagement and their work engagement?

Research Hypothesis

The following research hypothesis are proposed for investigation in this study:

H_{a1}: There is a significant relationship between preschool teachers' self-efficacy in instructional strategies and their work engagement.

H_{a2}: There is a significant relationship between preschool teachers' self-efficacy in classroom management and their work engagement.

H_{a3}: There is a significant relationship between preschool teachers' self-efficacy in student engagement and their work engagement.

Significance of Study

Firstly, the findings of this study might potentially serve as a valuable resource for future researchers to explore this particular area of inquiry. Given the limited studies of work engagement among early childhood teachers, future researchers with an interest in this topic can use the results of this study as a helpful resource for further investigation (Lipscomb et al., 2021). By exploring the relationship between work engagement and other factors, quality of early childhood education field can be improved. For instance, future studies can focus on how

resources like self-efficacy can protect teachers from the impact of job demands, which affect their work engagement like challenging children's behaviour, low pay, large group sizes or ratios of children to teachers (Lipscomb et al., 2021).

Besides, the accomplishments of this research can be helpful by the contributions made to the field of early childhood education. Administrators of a Preschool Institution, such as the principal of preschool might utilize the findings of this study to raise awareness of the significant influence that self-efficacy has on work engagement for preschool teachers. Administrators of a preschool institution can take into account that self-efficacy is a critical factor when making decisions about teacher assessment, curriculum development, and activity planning. A study by Mejia et al. (2021) shows that teachers' engagement with their work is expected to increase as a result of improved self-efficacy beliefs, which will also have a favourable effect on job performance. Thus, by recognizing the roles of teachers' self-efficacy on the quality of lessons and students' achievement, administrators can create a supportive working environment that boosts teachers' self-efficacy and ultimately increases the teachers' work engagement and commitment in preschool settings. For instance, supportive actions such as provision of materials, meeting classroom needs, allowing teachers to apply their skills and abilities, encouraging and empowering them to take the effort by increasing their motivation can ensure the efficient and effective execution of lessons and positively affect teachers' commitment to their work (Ertürk, 2021).

Furthermore, the study could benefit preschool teachers by serving as a resource to advance their professional development. They can take proactive measures to raise their self-efficacy and level of engagement at work, which will result in better teaching practices. Preschool teachers might take specialised courses for more training and actively participate in relevant training programs. They can improve their self-efficacy while teaching in classroom and raise their quality of engagement at work by involving in ongoing professional

development. Specialized courses are expected to boost teachers' self-efficacy as these training and course allows them to experience the factors, such as mastery experiences and vicarious experiences which emphasized by Bandura (Samuelsson et al., 2022). In light of the aforementioned statement, preschool principals can also play a supportive role by encouraging teachers to pursue additional training and by offering chances for ongoing professional growth in order to enhance teachers' self-efficacy and then promote their work engagement.

Definition of Terms

Teachers' self-efficacy. The conceptual definition of teachers' self-efficacy is defined as the degree to which a teacher perceives they may influence students' behaviour and performance, particularly those who have difficulty or a poor motivate to learn (Atsoniou, 2020). This beliefs in their ability of managing their responsibilities and challenges effectively has a significant impact on students' performance and achievement (Barni et al., 2019).

In this study, operational definition of teachers' self-efficacy refers to the beliefs that teachers have in their ability of managing classroom, instructional strategies and student engagement which relevant to their profession even when dealing with unmotivated students. These three factors were taken from the instrument used to measure preschool teachers' self-efficacy in this study which developed by Tschannen-Moran and Woolfolk Hoy (2001).

Efficacy in instructional strategies. The conceptual definition of efficacy in instructional strategies describes a teacher's confidence in their capacity to plan, carry out and assess classroom activities, tasks, and assessments in the lesson to support students' learning (Alrefaei, 2015).

The operational definition of efficacy in instructional strategies refers to teacher's level of confidence in crafting good questions to the children in a lesson, using variety of assessment

strategies, providing an alternative explanation or example when children are confused and implementing alternative methods in the classroom (Tschannen-Moran & Hoy, 2001).

Efficacy in classroom management. The conceptual definition of efficacy in classroom management is known as the ability of maintaining a non-distracting and ordered setting in the classroom (Alrefaei, 2015).

In this study, the operational definition of efficacy in classroom management describes teacher's confidence in their abilities to deal with children's disruptive behaviour in the classroom, to get children to follow rules, to calm an uncontrolled child and to create a classroom management system with each group of children (Tschannen-Moran & Hoy, 2001).

Efficacy in student engagement. The conceptual definition of efficacy in student engagement refers to teacher's belief that they can help student to remain motivated, interested, or engaged in their learning process (Alrefaei, 2015).

In this study, the operational definition of efficacy in student engagement refers to teachers' belief in their ability to motivate children who have low interest in schoolwork, to encourage children to believe they can do well in the school tasks given, to help children value learning and to assist children's families in helping their children perform well in school (Tschannen-Moran & Hoy, 2001).

Work engagement. The conceptual definition of work engagement is a positive, contented mental state that is in association with work and is characterised by vigor, dedication, and absorption (Schaufeli & Bakker, 2003). Individuals who engage fully in their work exhibit high levels of energy, have enthusiasm about their jobs and are highly motivated (Bakker & Albrecht, 2018).

The operational definition of work engagement is defined as commitment, devotion, and involvement of teachers in their work environments (Rapheal, 2019). Teachers with higher work engagement are more willing to take on challenges and have a positive outlook on new learning opportunities (Cacciamani et al., 2022).

Vigor. The conceptual definition of vigor is defined as a high degree of energy and mental resilience when working, the willingness to put effort into one's task, and determination even in the face of challenges (Schaufeli & Bakker, 2003).

In this study, the operational definition of vigor refers to teachers' commitment to their daily responsibilities (Cacciamani et al., 2022). Teachers with high vigor feel less bursting with energy during work, feel strong and vigorous in their job, feel like going to work when they get up in the morning, feel like able to continue working for very long periods at a time, mentally resilient at their work and always persevere even when things do not go well during work (Schaufeli & Bakker, 2003).

Dedication. The conceptual definition of dedication refers to being deeply invested in one's work and feeling a sense of challenge, pride and significance (Schaufeli & Bakker, 2003).

The operational definition of dedication refers to an attitude towards carrying out their job duties with responsibility and a sense of belonging to their workplace (Cacciamani et al., 2022). Teachers with high dedication find their work meaningful and purposeful, feel enthusiastic about their job, inspired by their job, proud of their work and find their work challenging for them (Schaufeli & Bakker, 2003).

Absorption. The conceptual definition of absorption describes being completely focused and fascinated in a task, characterised by rapid time passing and difficulty detaching

oneself from work (Schaufeli & Bakker, 2003).

The operational definition of absorption refers to a cognitive and emotional state that results in intense focus and perseverance throughout work-related activities (Cacciamani et al., 2022). Teachers with high absorption feel rapid time passing when they are working, forget everything else around them when they are working, happy when I working intensely, immerse in their job task, get carried away when they are working and feel hard to detach themselves from their job (Schaufeli & Bakker, 2003).

Preschool teacher. The conceptual definition of preschool teacher refers to an educator who specializes on guiding and dealing with young children in preschool settings between the ages of three and six (CareerExplorer, 2023).

In this study, the operational definition of preschool teacher is defined as early childhood educator who is teaching children from the age of 4 to 6 years old in Penang.

Conclusion

Chapter 1 of this research examines the relationship between preschool teachers' self-efficacy and their level of work engagement. The background of study addresses the lack of preschool teachers in Malaysia and how it affects educational quality, emphasising the need of investigating at the importance of self-efficacy in work engagement. The problem statement identifies the lack of sufficient empirical research in this area, creating a research gap. The significance of this study resides in its role in contributing to raise the standard of early childhood education, and it identifies essential factors like self-efficacy and work engagement. The definition of key terms in this study provides clear grasp of the context and scope of the study. Overall, this research seeks to address the research gap, offer insightful information and advance the field of early childhood education.

Chapter II

Literature Review

Introduction

This chapter mainly reviewed the previous literatures related to the topic of preschool teachers' self-efficacy and work engagement. In addition, the theoretical framework and conceptual framework were discussed which served as the basic framework of this study. The literature reviews were divided into three subheadings, which are 1) Teacher's self-efficacy, 2) Work engagement and 3) The relationship between teacher's self-efficacy and work engagement were also discussed.

Teacher's self-efficacy

Socio-cognitive theory by Albert Bandura stated that self-efficacy is a person's perception of their potential and abilities to complete a task or deal with challenges he/she faced (Mejia et al., 2021). According to a study by Loeb et al. (2016), an employee's beliefs about their ability to do tasks have an impact on the activities they decide to take to achieve their own goals, their dedication and the level of effort they put into their work, the outcomes they expect and their resilience. In education context, Tschannen-Moren (2001) stated that teachers' self-efficacy is their belief that they intend to carry out certain instructional duties in specific circumstances (Jiao et al., 2022). It is also referred as teacher's confidence of one's own ability to engage students and promote learning, especially when the students are challenging or unmotivated (Lazarides & Warner, 2020). The degree whereby teachers felt able to carry out their duties as classroom instructors was referred to as teachers' self-efficacy (Hasselquist et al., 2017).

Highly self-efficacious teachers attributed their high level of teaching efficacy to their broadened knowledge of teaching techniques, including inquiry, interactive learning and

hands-on learning (Seneviratne et al., 2019). A teacher's ability to raise students who can stay up with the times, acquire essential knowledge and abilities, and adopt new ideas will be greatly aided by their self-efficacy beliefs (Koc, 2013). According to Lazarides and Warner (2020), teacher with high self-efficacy are more receptive to new ideas and new teaching techniques, have greater abilities of planning and more constructive when dealing with mistakes made by their students. These teachers are more willing to experiment with fresh ways to teach in an effort to develop more effective teaching techniques, which enhances the academic performance and raises the achievement levels of their students (Palmer et al., 2015). In contrary, teachers with low self-efficacy spend more time on extracurricular activities, criticize students when they failed to succeed, put less effort in finding materials, employ more teacher-centered approaches and avoid the tasks that they perceive would be beyond their capabilities (Orakcı et al., 2023). Therefore, it would be challenging for the teachers who are lack of self-belief in carrying out his or her profession and do not find themselves professionally competent.

Tschannen-Moran and Woolfolk Hoy (2001) identified that there were distinctions of three essential components of effective instruction that teachers' self-efficacy differ on, namely efficacy in classroom management, efficacy in instructional strategies and efficacy in student engagement. Efficacy in classroom management refers to a teacher's confidence in their ability to maintain an orderly classroom atmosphere and deal with disruptive behaviour (Scherer et al., 2016). Teachers with low level of self-efficacy in classroom management appeared anxious when their routine was interrupted while they were teaching, whereas teachers with high level of self-efficacy in classroom management appeared more at ease and adaptive while confronting this situation (Hettinger et al., 2021). Besides, efficacy in instructional strategies is teachers' wide understanding of instruction that emphasizes the use of different teaching approaches, assessment techniques and explanations (Scherer et al., 2016). The previous study found that teachers who have higher level of efficacy in their instructional strategies spent more

time organizing, preparing, and executing their lessons (Orakcı et al., 2023). Furthermore, efficacy in student engagement focuses on providing students with emotional and cognitive support as well as the ability to motivate them to learn (Scherer et al., 2016). Teachers with poor efficacy in student engagement gave up more easily when the students were incapable of answering the questions quickly, whereas teachers with strong efficacy in student engagement emphasize on students' autonomy, tend to guide low-achieving students and are less critical as well as more appreciative of their students' accomplishments (Persinski, 2015).

Self-efficacy has been found to play a mediating role in the association between a variety of variables. Highly self-efficacious teachers reported greater satisfaction with their jobs, less stress at work and a better management of students' disruptive behavior (Barni et al., 2019; Li et al., 2015; Von Der Embse et al., 2016). There were also certain studies shown that there is a significant correlation between instructors' commitment and self-efficacy (Chesnut & Cullen, 2014; McKim & Velez, 2015). However, there is currently still a lot of under explored potential in the field of teacher self-efficacy research (Jiao et al., 2022). In short, due to its influence on instructional strategies, teaching effectiveness and student academic achievement, teachers' self-efficacy has progressively significance in school psychology research (Orakcı et al., 2023). The teaching profession is significantly impacted by teachers' confidence in their ability to effectively manage their duties, goals, and challenges related with their professional activity. A competent teacher always possesses a higher level of self-efficacy. It is readily apparent that teacher self-efficacy is extremely effective and has a significant influence on their pedagogical development in many different ways (Alibakhshi et al., 2020).

Work engagement

At the organisational level, work engagement, which is another word for commitment, refers to the bond that employee has with the company (Ayele, 2014). When the term 'work

engagement' is used to describe teachers, it refers to their physical bond with the school as evidenced by a psychological contract that contains latent and open pledges (Demirtaş, 2015). In other words, work engagement can be described as a favourable emotional and cognitive working status characterized by vigor, dedication and absorption (Schaufeli & Bakker, 2003). These three characteristics are perceived of as dimensions for evaluating the concept of work engagement. Vigor refers to high levels of mental resilience and energy during the working time (Zhang et al., 2021). When a person has high vigor while working, he or she will be concentrated on their task and remain unaffected in their efforts and contributions even if difficulties or obstacles were to arise (Iyer, 2016). Dedication is defined as having a strong commitment to one's work and experiencing pride, inspiration, and passion (Zhang et al., 2021). When someone has dedication, they find immense value in what they do during work and take great pride in doing it well (Iyer, 2016). Absorption is the state of being completely focused and contentedly immersed in one's work (Zhang et al., 2021). In this dimension, the person finds that time flies rapidly during work and it difficult to disengage from it (Iyer, 2016).

Work engagement was subjected as a possible performance predictor (Ruiz-Zorrilla et al., 2020). Work engagement is believed to produce favorable results both for the individual's organizational and personal development in terms of job performance (Mejia et al., 2021). Work engagement is correlated with high vigor and resilience to meet challenges at work and deal with difficult circumstances (Cacciamani et al., 2022). Teachers who actively engage in their working environment are more likely to take on challenges and possess a positive outlook on new learning opportunities. Thus, students' academic success, physical and mental development and teachers' personal professional development are all impacted by teachers' work engagement (Zhang et al., 2021). For instance, teachers who interact more positively, productively and purposefully at work may build an atmosphere that promotes the social, emotional, and behavioural growth of students. High work engagement levels will normally

associated with greater dedication, better involvement and participation as well as higher levels of productivity (Timms & Brough, 2013). Teachers who are highly engaged tend to be satisfied with their job and are more likely to exhibit innovative behaviours, whereas teachers who are less engaged frequently experience burnout, health issues, and high turnover (Zhang et al., 2021). In early childhood education context, the importance of teachers' work engagement cannot be understated given the wide range of difficulties teachers face in their profession. Early childhood educators often encounter difficulties like high emotional demands, low pay and a lack of organizational support (Bostic et al., 2023). Preschool teachers with high level of work engagement may be better able to handle difficulties at work and respond positively to the children's negative behaviors and emotions when encountering these high job demands (Nislin et al., 2016). For instance, teachers' emotional investment in their work can result in a more patient and compassionate approach when confronting difficult situations, fostering an enjoyable learning environment for the children.

According to the research conducted by Tayama et al. (2018), work engagement has emerged as a predictor of intention to stay employed in the field and job satisfaction. This suggested that when individuals become more invested in their work, they tend to have a stronger sense of attachment to their employment, which in turn contributed to an increased level of job satisfaction. When teachers are actively engaged in their work, they experience a sense of fulfilment and purpose which results in higher job satisfaction (Eryilmaz et al., 2021). It is noteworthy that in a study of more than 1000 preschool teachers in Japan, teachers' work engagement was the only variable that accurately predicted their intentions to work longer, whether they were younger (under 39 years old) or older (over 40 years old) (Tayama et al., 2018). Therefore, preschool teachers' work engagement is becoming a research focus, and it may be one of the essential components in improving teachers' retention, wellbeing and the quality of interactions that facilitate children's development (Lipscomb et al., 2021).

Relationship between teachers' self-efficacy and work engagement

Numerous researches has examined the relationship between teachers' self-efficacy and work engagement. For instance, a study by Lipscomb et al. (2021) thoroughly investigated the significant relationship between preschool teachers' self-efficacy and work engagement and found that preschool teachers with higher levels of self-efficacy frequently display higher levels of work engagement by revealing a significant and positive correlation between both of these variables. The hypothesised relationship was proven by the Pearson r correlation analysis, which showed a moderate-to-strong positive correlation between self-efficacy and work engagement ($r = .50$, $p < .001$). This findings emphasised the significant influence of teachers' self-confidence has on their degree of dedication, vigor and absorption in the work they do. Lipscomb et al. (2021) claimed that highly self-efficacious preschool teachers are more likely to be devoted to their work as they have confidence in their capacity to instruct well and have a good impact on the students' development while teaching.

Besides, another study conducted by Johnson (2022) also investigated the relationship between kindergarten teachers' self-efficacy and work engagement in China. The findings highlighted a noteworthy and statistically significant predictive relationship between these two variables. The result of this study validated the empirical data that shows how teachers' self-efficacy influences their work engagement. The reciprocal relationship between teacher self-efficacy and work engagement indicated the potential of creating more supportive work environment, particularly in terms of student engagement and social-emotional engagement. For instance, when the preschool teachers have high level of confidence in their ability to manage the classrooms, engage students during their teaching and promote students' learning, they are more likely to be engaged with their work. This engagement of preschool teachers in their work helps to build a learning environment that encourages student engagement.

Furthermore, a recent study done by Jiao et al. (2022), which involved 600 teachers

who work in China inclusive preschool settings, convincingly illustrated that teachers' self-efficacy and work engagement have a significant positive relationship. The findings of the study (Correlation coefficient = 0.222, $p < 0.001$) showed the considerable influence of self-efficacy beliefs on the degree of work engagement among teachers. It emphasized the critical role that self-efficacy in determining the degree of dedication, vigor and absorption that preschool teachers show towards their work. Jiao et al. (2022) claimed that highly self-efficacious teachers are confident in their capacity to cope with the demands and challenges of their field of work. Their confidence and motivation are boosted by their sense of competence, which resulted in increased levels of work engagement. In short, it is clear that teachers with higher levels of self-efficacy are more likely to maintain an active working attitude, showing that increased self-efficacy intensifies work engagement.

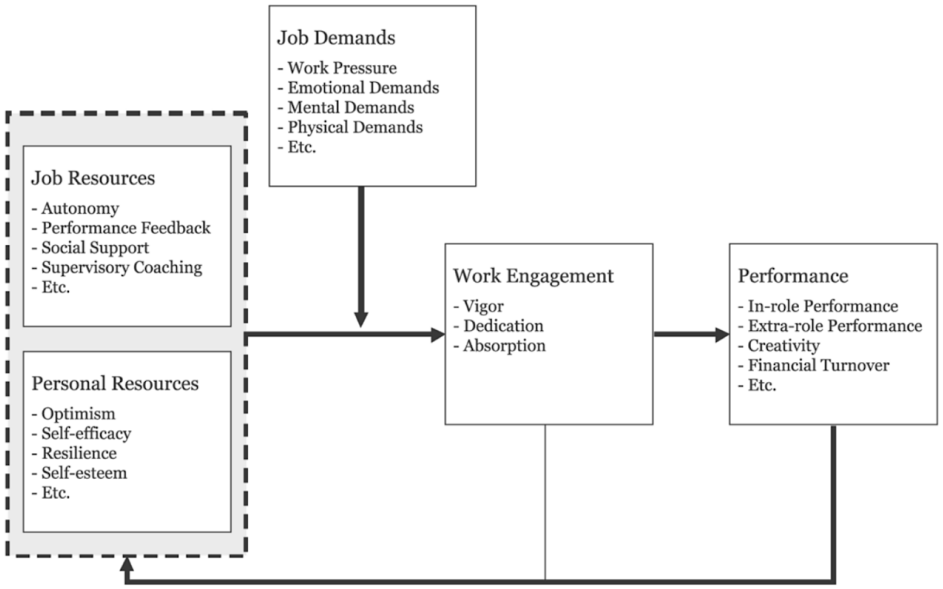
There were studies that had been done on elementary and high school education as well as the broader educational context. These studies served as helpful resources due to the lack of studies on these variables in the context of early childhood education. A study by Mejia et al. (2021) has demonstrated a strong and positive relationship between teacher self-efficacy and work engagement among educators in India. The Pearson r correlation results showed a moderate yet very significant correlation between these two key variables ($r = .50$, $p < .001$). This finding presented compelling evidence for the proposed relationship, substantiating the hypothesis that teachers' level of work engagement is directly influenced by their perceptions of their own abilities. Significantly, this study highlighted the critical part that self-efficacy play in motivating teachers' work engagement and ultimately improving their job performance. High self-efficacy belief will boost teachers' resilience when it comes to working. In other words, as long as teachers have confidence in their abilities, it will show in their engagement with their work. Hence, it is obvious that an individual's belief in their ability to complete tasks has a significant association on how committed they are to their work.

Moreover, in the context of local study, Jusoh et al. (2020) studied educators from 18 high-achieving secondary schools in Kelantan, Malaysia to find out the relationship between teachers' self-efficacy and work engagement. The findings had presented strong evidence to support the considerable and positive correlation between teachers' self-efficacy and their work engagement. The result highlighted the strong correlation between these variables, which was determined by the reliable statistical analysis ($r = .85$, $p < .01$). The substantial impact of self-efficacy is further shown by the determination coefficient ($r^2 = .72$), which indicates that the self-efficacy variable contributes to 72.0% of the commitment level. It is asserted that teachers' motivation for their engagement and ongoing progress in their teaching careers is shaped through their self-efficacy. The levels of engagement at school can be developed by teachers with high levels of self-confidence in group guidance, innovative education, student tasks and attitudes towards their schoolwork. In short, teachers who have high levels of self-efficacy can continue to be highly engaged to their work despite the factors of the environment and school's climate.

Theoretical Framework

Figure 1

The Job Demands-Resources (JD-R) model



Note. Image from "The fourth dimensions of the Job Demands-Resources (JD-R) model of work engagement in Indonesian context," by Helmi, A. F., Widhiarso, W., Marvianto, R. D., Priwati, A. R., Mustari, M. A., & Artikasari, Y. V., 2020, *Jurnal Psikologi, 47*(3), 206. Copyright 2020 by Jurnal Psikologi.

Figure 1 shows the model of Job Demands-Resources (JD-R), which suggests that the job demand and job resources have distinct outcomes on an employee's performance and well-being (Bakker & Demerouti, 2007). In this study, the JD-R model was being utilised to investigate the role of work engagement variable. Numerous research has been conducted which has discovered that job demands and job resources have been respectively adversely and favourably related to engagement (Ahmad et al., 2021; Bakker et al., 2023; Oshio et al., 2018). The JD-R model, which is particularly relevant to the current study, frames an investigation based on strengths, in which protective factors (job resources like autonomy and support) predict favourable outcomes (work engagement), while considering job demands such as heavy

workloads, physical demands and emotional labour (Bakker et al., 2014). Individual differences have been incorporated into the model in the form of personal resources. Personal resources are described as the individual's self psychological characteristics that typically go hand in hand with resiliency and that refer to the capacity to manage and affect one's environment successfully (Schaufeli & Taris, 2013). In short, personal resources like self-efficacy, self-esteem, optimism and other more are unique employee characteristics that have an impact on how people use job resources to cope with their job demands (Grover et al., 2016).

Application of The Job Demands-Resources (JD-R) model into current study

Numerous studies have shown that preschool teachers have a heavy workload, as they are under a lot of work-related responsibilities (Chen et al., 2023). Preschool teachers are busy and overburdened with responsibilities whether it is teaching or non-teaching-related tasks. From a worldwide standpoint, the majority of preschool teachers' workloads are growing, non-teaching tasks are becoming increasingly numerous in number and occasionally they are assigned with a specific task for which they are not well-versed such as extra meetings, paper works and events that require teachers' participation (Pacaol, 2021). According to study conducted by Helmi et al. (2020), when the job demands are high, the job resources and personal resources will be the factors that predict work engagement, which has an advantageous impact on work engagement. Additionally, the influence of job demands and job resources on employee's outcomes can be predicted or influenced directly or indirectly by personal resources (Granziera et al., 2020). For instance, a teacher's perception of the school climate (a job resource) may be influenced by their sense of self-efficacy (a personal resource), which may heighten their sense of commitment (work engagement).

In the context of education, personal resources have been discovered to be major predictors of a wide range of outcomes. The personal resources that can be utilised in the JD-

R model is self-efficacy (Xanthopoulou et al., 2007). Self-efficacy is one of the personal resources that can protect against the negative consequences of job expectations, increasing levels of work engagement (Xanthopoulou et al., 2007). For instance, compared to an individual with low self-efficacy, a high self-efficacy individual may be better equipped to handle high job demands and retain their level of engagement. Thus, self-efficacy can be a crucial personal resource that affects work engagement within the JD-R model. Significantly, personal resources like self-efficacy, which refers to the capacities that individuals may be able to further develop or change, are crucial because they serve as a suitable foundation from which interventions aimed at improving teachers' wellbeing.

Conceptual Framework

Figure 2

Conceptual Framework of the study

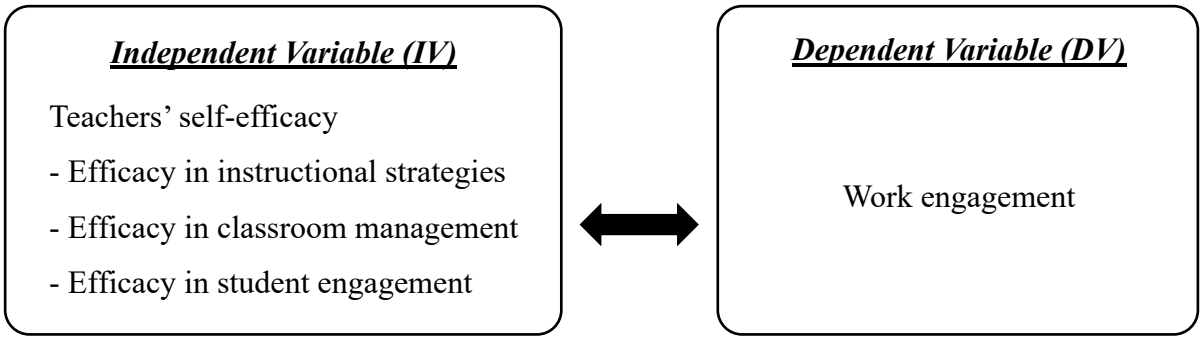


Figure 2 presents the relationship between the independent variables and dependent variables in this study. The independent variable is preschool teachers' self-efficacy and the dependent variable is work engagement. Teachers' self-efficacy has 3 corelated factors, which are efficacy in instructional strategies, efficacy in classroom management as well as efficacy in student engagement. Meanwhile, for work engagement, there are three subscales: vigor, dedication and absorption. However, since the UWES subscales are highly correlated, it was recommended not to include them simultaneously in multivariate regression analysis, which is

statistical method utilised to examine the relationship between a dependent variable and multiple independent variables, similar to the approach undertaken in this study (Schaufeli & Bakker, 2003). This is to prevent potential issues related to multicollinearity (Schaufeli & Bakker, 2003).

Teachers' self-efficacy, which refers to their belief in their own ability to carry out tasks and produce the desired outcomes in their professional roles can influence their work engagement (Jiao et al., 2022). Teachers are more likely to feel competent and capable in their teaching practises when they are highly self-efficacious, which increases their work engagement that comprises the level of vigor, dedication and absorption in their work. In this study, it was hypothesised that there is a significant positive correlation between teachers' of self-efficacy and their level of work engagement, with higher levels of self-efficacy being associated with greater levels of work engagement.

Conclusion

In overall, this chapter has examine the key aspects of the research topic, including teachers' self-efficacy, work engagement and relationship between teachers' self-efficacy and work engagement. The interrelationship of the topic within the theoretical framework of the Job Demands-Resources (JD-R) model was also discussed. The conceptual framework, which teachers' self-efficacy as the independent variable and work engagement as the dependent variable, complements this theoretical foundation and drives this empirical research. As proceeding to the study's empirical phase, researcher carried an in-depth understanding of the relationship between self-efficacy and work engagement, which prepared this study to contribute meaningful insights to the field of early childhood education.

Chapter III

Methodology

Introduction

The methodology used to collect the data on the influence of preschool teachers' self-efficacy in instructional strategies, classroom management and student engagement on their work engagement is discussed in this chapter. It constitutes numerous sections known as: 1) research design, 2) sampling and respondents, 3) research instrument, 4) data analysis method, and 5) research procedure.

Research Design

This study will use quantitative research process as its primary method of investigation. Quantitative research offers a structured approach that allows systematic collection and analysis of numerical data as well as enables the exploration of patterns, associations, and trends within the data (Creswell, 2014). This allows investigation of correlations among the variables, which are preschool teachers' self-efficacy and their work engagement by utilizing numerical data and statistical analyses. In addition, this study will employ correlational design to test the hypothesis, which is to examine whether there is a significant relationship between preschool teachers' self-efficacy and their work engagement. Correlational research will be adopted in this study as it can investigate the potential correlation between two variables (Cavallo et al., 2016), aligning with the research objectives of this study.

In order to examine the influence of preschool teachers' self-efficacy in instructional strategies, classroom management and student engagement on their work engagement, survey research method will be adopted. This method will involve the distribution of questionnaires to collect data, which will then be further analysed using both descriptive and inferential statistical analysis. Survey research method enables effective data collection from a large

number of respondents, and also allows for the generalisation of findings to a wider population (Ponto, 2015). Since this study aims to examine the influence of preschool teachers' self-efficacy on their work engagement, surveying a large sample of preschool teachers allows more thorough investigation of the topic.

Sampling and Respondents

In this study, the researcher will use a non-probability sampling technique, known as convenience sampling. Convenience sampling identifies respondents who are easily accessible within a specific area and meet certain requirements (Stratton, 2021). Convenience sampling is selected in this study due to the minimal requirements necessary for participation in this study. The target population for this study comprised the preschool teachers. Thus, the only requirement for respondents is that the respondent should be a preschool teacher teaching young children from the age of 4 to 6 years old.

To achieve the research objectives of this study, the researcher aims to obtain a sample size of 70 respondents. The research will be conducted in Penang area, taking into account factors such as accessibility to preschools and ease of reaching respondents, which are crucial considerations as the researcher is self-funded. The selection of the study location also based on the researcher's familiarity with the area and the existence of suitable respondents who are readily available and willing to participate in this study.

Research Instrument

There are three main sections for the questionnaire. The first section of the questionnaire will be focusing on collecting demographic information of the respondents. This section attempts to gather background information that could provide context for the study findings. Respondents will be questioned about their age, gender, educational background,

years of teaching experience and any other relevant demographic information. The inclusion of these questions allows the researchers to evaluate any possible relationships or trends in the data as well as potential differences in the study variables based on demographic characteristics. This demographic information will be collected to ensure a thorough analysis of the research findings and to better understand the backgrounds of the respondents.

The second section will be Teachers' Sense of Efficacy Scale (TSES) which developed by Tschannen-Moran and Woolfolk Hoy in 2001 (2001). It is a self-report instrument designed to measure preschool teacher's self-efficacy that impact student learning and behavior by investigating the challenges that the preschool teachers faced in daily school activities (Atsoniou, 2020). TSES has been used in various countries, including the Spain (Salas-Rodríguez et al., 2021), USA (Lipscomb et al., 2021) and others. There are two versions of TSES, which are 24-items long-form version and 12-items short form version (Tschannen-Moran & Hoy, 2001). In this study, research will utilize the 12-items short form version, which is divided into three subscales as 'Efficacy in Instructional Strategies', 'Efficacy in Classroom Management' and 'Efficacy in Student Engagement'.

The short-form version is employed as Tschannen-Moran and Woolfolk Hoy claimed that these three factors are generally viewed as consisting of three independents but moderately linked domains (Ma et al., 2019). Each of the items in this instrument is rated on a 9-point Likert scale, with higher scores indicating greater self-efficacy (Tschannen-Moran & Hoy, 2001). The scale ranges from 1 for 'Nothing', 3 for 'Very Little', 5 for ' Some Influence', 7 for 'Quite a bit' to 9 for 'A Great Deal' (Tschannen-Moran & Hoy, 2001). There is no reverse scoring in the TSES, and the method of scoring is to calculate the mean score by totalling up the scores of the items that load on each subscale (Ma et al., 2019). This short version of TSES as well as the three factor models has demonstrated good reliability, with Cronbach's alpha of .90 (Tschannen-Moran & Hoy, 2001). For the three subscales, the efficacy in instructional

strategies subscale had a Cronbach's alpha of .86, while both efficacy in classroom management and efficacy in student engagement subscales had Cronbach's alpha values of .81 (Tschannen-Moran & Hoy, 2001).

The third section of the questionnaire was Utrecht Work Engagement Scale (UWES), developed by Arnold B. Bakker and Wilmar B. Schaufeli in 2003 (2003). There are four versions of UWES, which are UWES-9, UWES-17, UWES-Short and UWES-Students (UWES-S). In this study, UWES-17, which is composed of 17 items that consists of three subscales - Vigor, Dedication, and Absorption will be used. The scale is developed to measure work engagement, which is a positive, joyful and satisfied mental state characterised by vigor, dedication, and absorption (Schaufeli & Bakker, 2003). The UWES has been used in various countries worldwide, including the Australia, North America, Japan and so on (Bakker & Schaufeli, 2015). There are a specific number of items in each subscale. Six items make up vigor and absorption, whereas five items make up dedication (Mejia et al., 2021). There is no reverse scoring and scores are normally given on a 7-point Likert scale, where the range of response options is 0 'Never' to 6 'Always/Everyday' (Schaufeli & Bakker, 2003). The responses to the items in each subscale are added up to determine the score. This is because the 3 subscales are strongly correlated. It is recommended not to entered them at the same time in multivariate regression analysis to prevent multicollinearity issues (Schaufeli & Bakker, 2003). Therefore, the total work engagement score will be calculated as the average of the 17 items, with higher mean scores indicating greater work engagement (Lipscomb et al., 2021). The statistical norms for UWES-17 were established by 5 categories: 'Very low', 'Low', 'Average', 'High' and 'Very high' (Schaufeli & Bakker, 2003). These categories were determined based on mean scores, with less than or equal to 1.93 indicates 'Very low'; 1.94 to 3.06 indicates 'Low'; 3.07 to 4.66 indicates 'Average'; 4.67 to 5.53 indicates 'High' and mean scores higher than or equal to 5.54 indicates 'Very high'. With Cronbach's alpha of .83, UWES has shown to

be reliable and to have strong internal consistency (Lipscomb et al., 2021). As it correlates with related variables including job satisfaction, organizational commitment, burnout and turnover intention, the scale has also demonstrated excellent construct validity in past study (Lipscomb et al., 2021).

Data Analysis Method(s)

Descriptive and inferential analysis will be carried out throughout the data analysis process in this quantitative study. The data of demographic information, Teachers' Sense of Efficacy Scale (TSES) and the Utrecht Work Engagement Scale (UWES) are then analysed using IBM SPSS Statistics. In the descriptive analysis, frequency, percentage scores, mean and standard deviations are used to analyse the data from the demographic information collected. In the inferential analysis, Pearson correlation coefficient will be utilised to evaluate the relationship between the independent variable (teachers' self-efficacy) and dependent variable (work engagement) as both of these variables are typically measured on continuous scales (Suresh & Narayana Raju, 2022). The strength of the relationship between the variables is assessed by the range of Pearson correlation coefficients (r) from -1 to +1 (Turney, 2023). The reference for understanding the range of correlation coefficient values and the corresponding levels of correlation is presented in Table 1 below.

Table 1

Range of Correlation Coefficient Values and the Corresponding Levels of Correlation

Range of Correlation Coefficient Values	Level of Correlation	Range of Correlation Coefficient Values	Level of Correlation
0.80 to 1.00	Very Strong Positive	-1.00 to -0.80	Very Strong Negative
0.60 to 0.79	Strong Positive	-0.79 to -0.60	Strong Negative
0.40 to 0.59	Moderate Positive	-0.59 to -0.40	Moderate Negative
0.20 to 0.39	Weak Positive	-0.39 to -0.20	Weak Negative
0.00 to 0.19	Very Weak Positive	-0.19 to -0.01	Very Weak Negative

Note. Table from "Assortativity Analysis of Real-World Network Graphs based on Centrality Metrics," by Meghanathan, N, 2016, *Computer and Information Science, 9*(3), 7. Copyright by Computer and Information Science.

The presence of a positive correlation (as one variable increases, the other increases as well) or a negative correlation (as one variable increases, the other declines) is indicated by the sign '-' and '+' in front (Pallant, 2011). Regardless the positive and negative sign, the size of the absolute value tells the strength of the relationship (Pallant, 2011). A correlation of 0 shows that there is no relationship between the two variables (Pallant, 2011). The correlation coefficient as refers to the P-value is considered to as statistically significant if the probability is less than the conventional 5% ($P < 0.05$).

Research Procedure

The research procedure begins by seeking consent from the gatekeeper, who in this case is the preschool principal. The researcher will speak to the principals, explains the purpose of the study and issues a formal request stating the requirements for the research respondents. For

this study, the preschool teachers in Penang area will be the targeted respondents. The informed consent will be prepared and attached with the questionnaire in the Google Form. The researcher will devise an approach where the informed consent letter will be attached at the start of the questionnaire in order to make sure that teachers will be completely informed and willing to participate. Before proceeding to the questionnaire, participants will need to declare their willingness to participate through providing their informed consent. The letter also addresses ethical considerations, such as data privacy and confidentiality. After this, respondents' demographic data will be collected, as well as Teachers' Sense of Efficacy Scale (TSES) and the Utrecht Work Engagement Scale (UWES) questionnaires will be presented to the participants once the proper ethical procedure has been followed. The data collection from 70 respondents is predicted to take approximately 2 to 3 weeks of time. After reaching the targeted sample number of 70 respondents, the researcher will conduct data analysis by using IBM SPSS Statistics, starting with data preparation before moving on to descriptive and inferential analysis. Lastly, the researcher will summarize the key findings and report the findings of this research.

Conclusion

To summarize, correlational design and survey research methods are used to examine the relationship between preschool teacher self-efficacy and their work engagement in this quantitative study. 70 respondents will be selected from Penang area through convenience sampling. The study employs the Teachers' Sense of Efficacy Scale (TSES) and the Utrecht Work Engagement Scale (UWES) to measure self-efficacy and work engagement, respectively. IBM SPSS Statistics will be used to conduct descriptive and inferential analyses. Before starting the data collection for this study, which is anticipated to take 2 to 3 weeks, the preschool teachers' informed consent will be sought. The main conclusions will be outlined and reported.

Chapter IV

Findings and Analysis

Introduction

This chapter offers an overview of the data collected and strives to answer the research questions in this study. There were a total of 73 preschool teachers in Penang area participated in the questionnaire via Google Form. The process of data collection took a duration of 2 weeks to successfully collect responses from the targeted sample. The data collected is further analysed in this chapter, and the findings are presented in the form of tables and paragraphs. A detailed description is presented to stimulate discussion illustrate if the data has investigated the research questions drafted in this study. To tabulate and analyse the collected data, IBM SPSS Statistics is used.

Descriptive Statistics and Analysis

The demographic information of 73 respondents, which includes their age, gender, highest academic qualifications and years of teaching experiences, have been analysed and presented in table and paragraph forms.

Table 2

Distributions of Respondents Age

Age Group	Frequency (N)	Percentage (%)
Below 20 years old	7	9.6
20 - 29 years old	47	64.4
30 - 39 years old	8	11.0
40 - 49 years old	6	8.2
50 years old or above	5	6.8
Total	73	100

Table 2 shows the age group distribution of preschool teachers in Penang area who participated in this study. A majority of the 73 respondents, which is 47 out of 73 respondents (64.4%) are in the age group of 20 to 29 years old. Then, followed by 8 respondents (11.0%) who aged between 30 to 39 years old. There were 7 respondents (9.6%) who are below 20 years old while 6 respondents (8.2%) are in the age group of 40 to 49 years old. Only 5 respondents (6.8%) aged 50 years old and above participated in this study.

Table 3

Distributions of Respondents Gender

Gender	Frequency (N)	Percentage (%)
Male	1	1.4
Female	72	98.6
Total	73	100

Table 3 displays the gender distributions of preschool teachers in Penang area who participated in this study. There were 72 respondents (98.6%) are female, which accounted for the majority, while merely 1 respondent (1.4%) identified as male.

Table 4

Educational Background

Highest Academic Qualification	Frequency (N)	Percentage (%)
SPM / O-Level	9	12.3
STPM / UEC / A-Level	0	0
Diploma	25	34.2
Degree	36	49.3
Master	3	4.1
Total	73	100

Table 4 presents the educational background of preschool teachers, which also refers to highest academic qualification of preschool teachers who participated in this study. The dominant group was the Degree holders, comprising 36 respondents (49.3%). This was then followed by Diploma holders, which constituted 25 respondents (34.2%) out of 73 respondents. There were 9 respondents (12.3%) who are SPM or O-Level holders while 3 respondents (4.1%) were Master holder. There were no STPM, UEC or A-Level holder participated in this study.

Table 5

Years of Teaching Experiences

Teaching Experiences (Years)	Frequency (N)	Percentage (%)
Less than 1 year	16	21.9
1 – 2 years	8	11.0
2 – 3 years	9	12.3
3 – 4 years	10	13.7
4 – 5 years	6	8.2
5 years and above	24	32.9
Total	73	100

Table 5 shows the teaching experience of preschool teachers in early childhood industry in terms of number of years. In the total of 73 respondents, there were 24 respondents (32.9%) who have teaching experience for 5 years and above, which accounted for the majority. This was then followed by preschool teachers who have less than 1 year of teaching experiences, comprising 16 respondents (21.9%). As shown in Table 4, there were 10 respondents (13.7%) who have teaching experiences for 3 to 4 years, while 9 respondents (12.3%) have teaching experiences for 2 to 3 years, followed by 8 respondents (11.0%) who have teaching experiences for 1 to 2 years. There were only 6 respondents (8.2%) out of 73 respondents have 4 to 5 years of teaching experiences.

Table 6

Mean and Standard Deviation of Total Teachers' Sense of Efficacy Scale (TSES) and its Subscales

Items		Frequency (N)	Mean (M)	Standard Deviation (SD)
Total TSES		73	81.78	14.251
Subscales	Efficacy in Classroom Management	73	27.16	5.188
	Efficacy in Instructional Strategies	73	27.47	4.747
	Efficacy in Student Engagement	73	27.15	5.179

Table 6 indicates the mean (M) and standard deviation (SD) of IV - teachers' self-efficacy and the three subscales, which includes efficacy in classroom management, efficacy in instructional strategies and efficacy in student engagement. The sample size of the data is 73. For teacher's sense of efficacy, the results shows that the mean (M)=81.78 and standard deviation (SD)=14.251.

The subscale with the highest score is efficacy in instructional strategies, which the mean (M) is 27.47, followed by efficacy in classroom management (M=27.16). The subscale with the lowest score is efficacy in student engagement, with the score of M=27.15. This means that preschool teachers in this study perceived high, effective ability in providing instructions to the children whereas least ability in engaging children.

Table 7

Mean and Standard Deviation of Work Engagement Scale (UWES)

Item	Frequency (N)	Mean (M)	Standard Deviation (SD)
UWES	73	4.211	1.234

Table 7 presents the overall mean value (M) and standard deviation (SD) of DV - work engagement among preschool teachers in Penang area with a total sample size of 73. The mean value (M) is 4.211 and the standard deviation (SD) is 1.234. Based on the norm scores for UWES-17 determined by Schaufeli & Bakker (2003), the mean of 4.211 obtained in this study falls within the category of "average" for work engagement.

Inferential Statistics and Analysis

The questionnaire completed by the 73 preschool teachers in Penang area has been analysed. Pearson correlation coefficient was utilised to examine the research hypothesis of this study.

Table 8

Correlation between Teachers' Self-Efficacy in Instructional Strategies, Classroom Management, Student Engagement and Their Work Engagement

			Efficacy in Instructional Strategies	Efficacy in Classroom Management	Efficacy in Student Engagement
Pearson Correlation	Work Engagement	Correlation Coefficient	.368**	.341**	.415**
		Sig. (2-tailed)	.001	.003	<.001
		N	73	73	73

**Correlation is significant at the 0.01 level (2-tailed).

Table 8 shows correlation coefficient between teachers' self-efficacy in instructional strategies, classroom management, student engagement and their work engagement. Based on Table 8, there was a significant but weak positive correlation between the teachers' self-efficacy in instructional strategies and work engagement (r= 0.368, N= 73, p= 0.001), which indicates that the higher the teachers' self-efficacy in instructional strategies will likely increases their level of work engagement. Thus, the hypothesis (H_{a1}) is accepted.

Besides, the tabulated result above presents that there was a significant but weak positive correlation between the teachers' self-efficacy in classroom management and work engagement (r= 0.341, N= 73, p= 0.003). It shows that teachers are more likely to be engaged at work when they have higher levels of self-efficacy in classroom management. Thus, the hypothesis (H_{a2}) is accepted.

From the tabulated result, there was a moderate and statistically significant positive correlation between the teachers' self-efficacy in student engagement and work engagement (r= 0.415, N= 73, p= <0.001). This indicates that teachers with higher self-efficacy in student engagement tend to have greater work engagement. Thus, the hypothesis (H_{a3}) is accepted.

Summary

Table 9

Summary of Findings

Hypothesis Assumption	Result	Decision
There is a significant relationship between preschool teachers' self-efficacy in instructional strategies and their work engagement.	r= 0.368, N= 73, p= 0.001	Accepted
There is a significant relationship between preschool teachers' self-efficacy in classroom management and their work engagement.	r= 0.341, N= 73, p= 0.003	Accepted
There is a significant relationship between preschool teachers' self-efficacy in student engagement and their work engagement.	r= 0.415, N= 73, p= <0.001	Accepted

Pearson correlation coefficient was calculated to assess the relationship between teachers' self-efficacy in instructional strategies, classroom management, student engagement and their work engagement among preschool teachers in Penang. The findings show that there was significant positive correlation between teachers' self-efficacy in instructional strategies, classroom management, student engagement and their work engagement. In short, all the hypothesis in this study are accepted.

Chapter V

Discussion and Conclusion

Introduction

This chapter provides an overview of the findings in this study. The research questions stated in Chapter 1 are answered by using the data analysed. The main findings is presented in paragraph form under the discussion section and a conclusion for the entire study has been drawn out. In order to allow future researchers to conduct more thorough and significant research, implications, limitations and recommendation for future research are also highlighted.

Descriptive Analysis and Discussion

In this section, the researcher discusses the descriptive information of the respondents' self-efficacy and level of work engagement.

Penang Preschool Teachers' Self-Efficacy

From the statistics provided in Table 6, the current study revealed that Penang preschool teachers exhibit the highest mean score (mean= 27.47) in their efficacy in instructional strategies. In addition, the findings presented that Penang preschool teachers appeared to have least confidence in their ability to actively engage students in teaching-learning activities as they scored the least mean score (mean= 27.15) in their efficacy in student engagement.

This result can be explained with several reasons by analysing the demographic data collected. According to Bandura (1997), an individual's self-efficacy is determined by 4 sources, including vicarious experience, mastery experience, social persuasion and physiological states. The preschool teachers' educational background is a source of mastery experience for them, who believed that they are equipped and qualified to teach given the conceptual knowledge acquired in university courses (Moulding et al., 2014). Preschool teachers with bachelor's

degrees or higher academic qualifications in related field will typically have more advanced knowledge towards teaching young children. This advanced knowledge can enhance their self-efficacy in implementing instructional strategies that are effective for young children's developmental needs as the development of knowledge facilitates in teachers' understanding of children's psychology and instructional behaviour (Khandaker, 2021). This connection can be extended to the respondents in this current study, where a sizable percentage (54%) of Penang preschool teachers held degrees and master's qualifications. The preschool teachers with higher educational background get access a broad theoretical understanding of early childhood education and a wider variety of teaching strategies which boost their confidence in tailoring instruction (Manning et al., 2017). However, the teachers might have limited chances to gain practical experience working with young children even though they have high educational background. This can make them less confident in their ability to effectively engage students in the lessons, which also referred to as self-efficacy in student engagement.

Furthermore, the age and years of teaching experiences of preschool teachers may also contribute to their self-efficacy level. There were up to 67% of Penang preschool teachers had less than 5 years of teaching experience and 74% of them were under the age of 30 years old in this study. Generally, younger age teachers tend to have less years of teaching experiences compared to their elder colleagues and elder teachers tend to have more years of teaching experiences compared to the younger teachers. Thus, the subsequent analysis considered the age of preschool teachers and their years of teaching experience as a combined factor, rather than as two separate variables. The past study conducted by Soibamcha et al. (2016) claimed that younger teachers typically show a positive attitude towards teaching and stronger willingness to experiment with innovative methods of teaching while keeping up with the latest trends in the education field. As they see favourable student outcomes, this willingness to try new things might boost their confidence in their instructional strategies.

Nonetheless, the younger teachers, who relatively lack of teaching experience may cause anxiety and reduced confidence in effectively engaging students as they might not have experienced working with diverse student populations. They may doubt their abilities to engage students during their teaching due to their limited experience. These align with the findings from our study, which revealed that Penang preschool teachers have highest self-efficacy in instructional strategies and lowest self-efficacy in student engagement.

The Work Engagement of Penang Preschool Teachers

The current study analysis reported that Penang preschool teachers have the mean score of 4.21 for work engagement, which is considered to be average. In comparison to past studies, the result of this study suggests a slight higher level of work engagement among Penang preschool teachers, as the mean scores in previous studies were 3.94 (Ji & Cui, 2021), 4.12 (Heng & Chu, 2023) and 3.91 (Zang & Feng, 2023). This indicates that these preschool teachers have a positive feeling towards teaching and they may experience less job burnout.

There was research claimed that preschool teachers' knowledge and skills have been found contributed to their motivation and commitment towards their work, which also known as work engagement (Hyseni Duraku et al., 2022). Based on the current study's findings, most of the teachers (54%) are degree holders and master holders. For instance, facing the students who show problem behaviours is always a challenge for preschool teacher that influence their work engagement (Sandilos et al., 2018). According to Partee et al. (2019), teachers with bachelor's degrees or higher academic qualifications are more capable to manage a behaviourally challenging classroom setting and engage students in higher high-quality teacher-child interaction. This is due to the fact that they have comprehensive knowledge and skills in behaviour management, which lead them in effective use of positive discipline strategies (Hyseni Duraku et al., 2022). As a result, they have higher motivation when seeing

positive results from their efforts that enhanced their work engagement, which reduced the likelihood of leaving their work (Hyseni Duraku et al., 2022). The factor discussed above is linked to the findings of this study. The high levels of work engagement reported among preschool teachers in this study may be somewhat related to the fact that more than half of these teachers have advanced degrees or higher educational background.

Inferential Analysis and Discussion

In this study, Pearson correlational approach was used to analyse the relationship between preschool teachers' self-efficacy and work engagement. Teachers' self-efficacy construct has been divided into three distinct subscales, which are self-efficacy in instructional strategies, classroom management and student engagement. The study's findings showed a significant correlation between the three self-efficacy subscales (instructional strategies, classroom management, student engagement) and work engagement. As shown in Table 8, in overall, these findings collectively illustrated a positive correlation between preschool teachers' self-efficacy and work engagement, while accounting with preschool teachers' high job demands.

The findings of this study demonstrated that there was a significant but weak positive correlation between the teachers' self-efficacy in instructional strategies and work engagement, which suggests that the higher the level of preschool teachers' self-efficacy in instructional strategies, the greater their engagement in their work. This findings is similar with the past study conducted by Barr (2016), which claimed that teachers who connect with students in a focused, direct, purposeful and feedback-oriented manner can maximise their students' performance. Teachers with high self-efficacy in instructional strategies engaged in more frequent conversations with and among the students, demonstrated higher quality language modelling and modelled for their students more complex and advanced language. This provides

a good impact on the students' development while teaching, which can contribute to higher work engagement (Lipscomb et al., 2021).

In this study, there was a significant but weak positive correlation between the teachers' self-efficacy in classroom management and work engagement. This finding is similar with past study conducted by Zhai et al. (2011) which claimed that increasing a preschool teacher's confidence in managing the classroom can improve their level of work engagement. Based on the Job Demands-Resources (JD-R) model (Helmi et al., 2020), this happens because strengthening teachers' ability in controlling over children's behaviour represents a personal resource (self-efficacy), which can effectively reduce perceived job stressors, aligning with job demands. The ability includes expressing clear expectations in the classroom and creating a supportive learning atmosphere. As a result, they face fewer disruptions and challenges with managing the classroom, which eliminates perceived job stressors related to chaos in the classroom. The behavioural issue in the classroom consistently poses a challenge for preschool teachers, and this challenge can have an impact on their work engagement (Sandilos et al., 2018). Hence, as per the JD-R model, high self-efficacy in classroom management can help to create a positive work environment, thereby encourages preschool teachers to become emotionally and mentally invested in their work, resulting in increased work engagement. In short, boosting teachers' self-efficacy in their classroom management can results in a direct improvement in their overall work engagement. This correlation emphasises how important teacher self-efficacy is in shaping their level of engagement with their work.

Furthermore, the past study conducted by Johnson (2022) presented that the factor of student engagement is the most effective and statistically significant predictor of teacher work engagement among the three subscales. Efficacy in student engagement showed the strongest relationship (correlation coefficient = 0.34, $p < .001$) compared to efficacy in classroom management (correlation coefficient = .06, $p = .47$) and efficacy in instructional strategies

(correlation coefficient = 0.19, p = .07). This findings seemed to be aligned with the current study that found a moderately strong and statistically significant positive between the teachers' self-efficacy in student engagement and work engagement, which is also the most viable factor among the three subscales. The findings of this study presented that efficacy in student engagement showed the strongest relationship (r= 0.415, p < .001) compared to efficacy in classroom management (r = 0.341, p = .003 and efficacy in instructional strategies (r = 0.368, p = .001). According to Johnson (2022), teachers' work engagement is primarily influenced by their abilities to engage students, including their ability to stimulate students' creativity, encourage critical thinking, engage unmotivated students and interact with their families to help their children learn. Teachers get a sense of satisfaction and accomplishment when the students are engaged and enjoying the learning process. These positive experiences develop over time and lead to higher level of teachers' self-belief in their own abilities, which also known as self-efficacy in student engagement. As teachers witness how their efforts contribute to effective learning outcomes, their confidence in their teaching skills grows. As a result, they become more enthusiastic and committed to their work, which raises levels of work engagement. In short, teachers are more fully engaged in their work when they can get students engaged in learning.

As discussed above, this study highlights a relationship between preschool teachers' self-efficacy and their work engagement, recognising a positive correlation between these two variables. As indicated in the findings, there was a significant majority of respondents possessed a high educational background, with 54% of them being holders of degree and master qualification. The educational background was found to be correlated to higher levels of self-efficacy in instructional strategies, classroom management and student engagement. As a result, this findings support the idea that high educational background can be a crucial factor in boosting higher level of self-efficacy, which could potentially contribute to higher level of work

engagement among the preschool teachers. In short, these findings validated the hypothesis that preschool teachers' self-efficacy plays a significant role in enhancing their work engagement, which provides a valuable insights to the broader field of education.

Implication

This research's hypothesis aimed to discover if there is a significant relationship between preschool teachers' self-efficacy in instructional strategies, classroom management, student engagement and their work engagement. The findings illustrated a positive correlation between these variables for each factor, thus the hypothesis are accepted. Therefore, this study highlights the significant role of teachers' self-efficacy plays in relating to their work engagement, suggesting that a teacher's confidence in their abilities can indeed have an influence on their level of engagement in their work.

This result can be served as a valuable resource for preschool teachers in enhancing their professional growth and well-being. Preschool teachers' self-efficacy and feelings of being supported can be increased with the help of professional support programmes like coaching (Von Suchodoletz et al., 2018), training, workshops and so on. For instance, professional development training that focus on innovative teaching methods gives teachers an opportunity to refresh their professional skills and explore the best approaches to integrate new practices and procedures during a lesson (Elwyn, 2021). Teachers' self-efficacy in instructional strategies can be raised by understanding how to adapt their approaches to suit diverse children's needs and learning styles. Regular coaching sessions also enable coaches, such as more experienced teachers to observe teachers during lessons and offer feedback as well as guidance on classroom management strategies, assisting teachers in improving their skills (Morris et al., 2013). Proactive measures that boost their level of self-efficacy may be able to promote teachers' enthusiasm, commitment and dedication in their work (Lipscomb et al.,

2021). By acknowledging this, preschool teachers can take initiative to get involved in specialised courses for additional training and actively participate in relevant training programmes that can improve their self-efficacy, which also promote their teaching practices as well as the quality of the work (Lipscomb et al., 2021).

Besides, the findings of this study carry significance implication for the administrators of a preschool institution such as preschool principal. The development of targeted strategies to foster preschool teachers' confidence in instructional strategies, classroom management and student engagement could be guided by recognizing the influence that self-efficacy has on work engagement for preschool teachers. Administrators of preschool institution can foster a positive work atmosphere that raises teachers' self-efficacy which can eventually increases their work engagement and commitment. The supportive actions include providing materials, meeting classroom needs, allowing teachers to apply their skills and abilities, encouraging and empowering them to take the effort by increasing their motivation to allow the efficient and effective execution of lessons and have a positive impact on teachers' work engagement (Ertürk, 2021). By fostering higher levels of work engagement among teachers, school administrators can also anticipate a decrease in turnover rates (Johnson, 2022). This can result in a more consistent and predictable learning environment for young children which can maximise their learning experience and lead to high quality of education (Bryant et al., 2023).

Furthermore, the positive correlation shown between preschool teachers' self-efficacy in instructional strategies, classroom management, student engagement and their work engagement offers substantial perspectives into improving the quality of early childhood education. Preschool institutions could empower teachers to not only improve their own work engagement but also have a beneficial impact on student learning outcomes by providing them with the knowledge, resources, and support their need to manage their classrooms and engage students (Johnson, 2022). In a broader context, this study enriches the understanding of the

relationships between preschool teachers' self-efficacy and their work engagement. This study promotes an integrated approach for teacher development that includes both instructional skills and psychological well-being by highlighting the positive correlation between these variables. This can eventually help the educational system by paving the path for a more fulfilling and effective teaching experience.

In addition, the findings of this study uncovered that while preschool teachers' self-efficacy in student engagement is the strongest predictor of their work engagement, its average mean score (M=27.15) was lower than self-efficacy in instructional strategies (M=27.47) and self-efficacy in classroom management (M=27.16). This findings suggests that although there is the strongest correlation between preschool teachers' self-efficacy in student engagement with their work engagement, Penang preschool teachers typically rate their ability in engaging students lower compared to abilities in instructing and managing classroom. These results can be used as a useful guide for preschool institutions to assist teachers in improving their abilities for student engagement, which will consequently boosting their self-efficacy in student engagement and ultimately enhancing their work engagement. For instance, preschool administrators can improve teachers' techniques in student engagement by providing professional development opportunities that focus on specific interventions (Farber, 2016). These training focused on advancements to the classroom environment and effective instructional techniques (Farber, 2016). Then, preschool administrators can support the teachers by ensuring teachers have access to sufficient resources to facilitate classroom restructuring and so on. Besides that, preschool administrators can consider implementing regular professional development sessions such as peer learning and mentorship programs. This allows teachers to share and exchange ideas on effective student engagement strategies, which can significantly improve teachers' student engagement skills (Williford et al., 2013), and subsequently their work engagement.

Limitation

There are 3 limitations that could be presented in this study. Firstly, this study faced challenges in reaching government preschool teachers due to the short timeframe allocated for data collection. The results of this study are limited to preschool teachers working in non-government (private) preschools in Penang area only. This limitation in sampling caused the results are less generalizable to both private and government preschool teachers in Malaysia. Thus, although the findings were able to provide insight into the experiences of teachers at private preschools, it might not accurately reflect the circumstances and viewpoints of teachers in government preschools or in other parts of Malaysia.

Secondly, a limitation emerges from the tendency shown in a few of centres' reluctance of participating in the survey. There were only 7 out of over 30 preschool that were contacted for the study replied and participated in the beginning. In addition, there were some centres acknowledged that they were busy at the time and suggested a follow-up contact after two weeks. The data collection was carried out in early August, which was a period when preschools normally busy for preparations for the upcoming academic year and also celebration of National Day. Due to time restrictions, a number of centres chose not to participate in the survey and led to this situation. The researchers had to look for more preschool teachers and contact more preschools in order to have a sufficient sample size. As a result, the duration for data collection was extended, slightly delaying the process of data analysis.

Moreover, it is crucial to acknowledge a limitation resulting from the absence of job resources as potential factors. According to Ahmad et al. (2021), there is a significant relationship between preschool teachers' job resources and their work engagement. The study claimed that high levels of job resources, including autonomy, social support and so on (Helmi et al., 2020) can result in higher levels of work engagement. However, this study only focused on personal resources like self-efficacy and ignored the influence of job resources on work

engagement. As a result, the study may fail to provide an accurate understanding of the intricate variables influencing preschool teachers' level of work engagement because this study only focused on examining the preschool teachers in general but not considering their job resources as the factor that may influence the result.

Recommendation for Future Research

A few recommendations are made to reduce the limitations and support for future research. First of all, future research could aim to include samples of preschool teachers from various areas that are more diverse and inclusive. This comprises preschool teachers from both private and government preschool from different regions of Malaysia. A more holistic comprehension of the relationship between self-efficacy and work engagement in preschool context would be achievable by the broader sample. Besides, the future researcher should increase the data collecting period in order to ensure sufficient time for reaching government preschool teachers. According to Menon and Muraleedharan (2020), a longer period of time for data collection may prevent or address the issue of low response rates, given that it was an online survey. A longer time frame for survey can help the researchers reach more respondents from a wider range of locations. This allows representativeness of the study's findings and its applicability to the broader teaching community.

Additionally, future researchers are recommended to develop proactive relationships with preschool administrators in order to better understand their academic calendars, student enrollment seasons and other busy periods. The collaborative approach would allow the determination of suitable timing for data collection, potentially minimizing disruptions to the preschools' regular activities. This strategic approach would increase the response rate and ensure that the data collected accurately reflected the perspectives of a broader range of preschool teachers. Furthermore, having a clear line of communication with preschool

administrators and teachers in advance on could facilitate a smoother data collecting process and minimise issues regarding time restrictions (Zweig et al., 2015).

According to Devjak et al. (2020), having higher level of knowledge is a key condition for one of the job resources, which is preschool teachers' autonomy. Thus, building on the identified limitation, future research should use job resources such as educational background as a variable in the study. This arises from the fact that higher educational backgrounds often equate to more professional knowledge such as specific teaching skills (Manning et al., 2017). Therefore, it is recommended that future researchers focus the data collection to preschool teachers who have a bachelor's degree or higher educational background in order to minimize the mediating effects of job resources on the accuracy of the findings. In short, the future study should include job resources as one of the variables that could potentially influence teachers' self-efficacy as well as work engagement.

Conclusion

In overall, this research showed a significant correlation between the three self-efficacy subscales (instructional strategies, classroom management, student engagement) and work engagement. This study emphasises the important role that teachers' self-efficacy plays in promoting greater work engagement and consequently enhancing the quality of early childhood education. By recognizing and nurturing this relationship, educational stakeholders may encourage particular efforts that improve both teacher well-being and student learning outcomes. The limitations of this study, especially the tendency of some preschool to decline participation due to time restrictions, highlight the necessity of careful planning in data collection strategies. The study's validity can be improved by addressing these limitations, which can lead to more thorough understandings of the relationship between preschool teachers' self-efficacy and work engagement.

Conclusion

In conclusion, this study explores the relationship between self-efficacy (efficacy in instructional strategies, efficacy in classroom management and efficacy in student engagement) and work engagement among Penang preschool teachers. This study strives to examine the relationship between preschool teachers' self-efficacy and work engagement, addressing a research gap in local context, particularly in preschool context. These variables can be explored more thoroughly through the utilization of Teachers' Sense of Efficacy Scale (TSES) developed by Tschannen-Moran and Woolfolk Hoy (2001) and Utrecht Work Engagement Scale (UWES-17) by Bakker and Schaufeli (2003). The descriptive findings presented that Penang preschool teachers possessed the highest levels of self-efficacy in instructional strategies compared to other subscales, whereas their level of work engagement fell within the average category. Crucially, all the three subscales of teachers' self-efficacy have been shown to be significantly and positively correlated to work engagement in this study, with a particularly moderate and significant correlation found for efficacy in student engagement. Some limitations have been recognised, including limited time allocated for data collection, less conducive timing to collect data and the absence of job resources as potential factors which may affect the results. To address the limitations and improve on future research, it is recommended to consider extending period of data collection, fostering proactive relationships with various preschool administrators and use job resources as one of the factors. This study underscores the necessity to further investigate the relationship between self-efficacy and work engagement among Malaysian preschool teachers. The findings revealed the significant role that teachers' self-efficacy plays in influencing their work engagement, which holds the implications that can ultimately improve the quality of early childhood education. Preschool institutions and administrators can develop a more engaging and effective learning environment that benefits both teachers and children by prioritizing in boosting teachers' self-efficacy.

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Appendixes

Appendix A: Questionnaires

INFORMED CONSENT FORM

PRINCIPAL INVESTIGATOR

Lee Xin Wei (xinwei0421@gmail.com)

Bachelor of Early Childhood Education student from University Tunku Abdul Rahman (UTAR)

PURPOSE OF STUDY

You are invited to take part in this research study. Before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. Please read the following information carefully. Please ask the researcher if there is anything unclear or if you need more information.

This study aims to examine the relationship between preschool teachers' self-efficacy and their work engagement.

RISKS

There is no particular harm or risk involved in this study. You may decline to answer any or all questions and you may terminate your involvement at any time if you choose.

BENEFITS

There will be no direct benefit to you for your participation in this study. However, we hope that the information obtained from this study may serve as a resource to advance teachers' professional development by taking proactive measures to raise self-efficacy and level of engagement at work, which will result in better teaching practices.

CONFIDENTIALITY

Your responses to this survey will be anonymous. All the data you have given will be kept confidential. Your information will be coded, with personal details kept secured in files and computers with access only by the immediate research team. The results of this study will be presented in a written up report. In this event of publication, no personal identification will be disclosed.

CONTACT INFORMATION

If you have questions at any time about this study, or you experience adverse effects as the result of participating in this study, you may contact the researcher whose contact information is provided on the first page.

VOLUNTARY PARTICIPATION

Your participation in this study is voluntary. It is up to you to decide whether or not to take part in this study. If you decide to take part in this study, you will be asked to sign a consent form. After you sign the consent form, you are still free to withdraw at any time and without giving a reason. Withdrawing from this study will not affect the relationship you have, if any, with the researcher. If you withdraw from the study before data collection is completed, your data will be returned to you or destroyed.

Consent *

I have read and understood all the information stated above. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I, hereby consent to participate in this research voluntarily.

- ◯ Yes, I agree
- ◯ No, I disagree

Section 1: Demographic Information

Please select the most accurate response.

Age *

- ◯ Below 20 years old
- ◯ 20 - 29 years old
- ◯ 30 - 39 years old
- ◯ 40 - 49 years old
- ◯ 50 years old or above

Gender *

- ◯ Male
- ◯ Female

Educational Background / Highest Academic Qualification *

- ◯ SPM / O-Level
- ◯ STPM / UEC / A-Level
- ◯ Diploma
- ◯ Degree
- ◯ Master

Teaching Experiences (Years) *

- ◯ Less than 1 year
- ◯ 1 - 2 years
- ◯ 2 - 3 years
- ◯ 3 - 4 years
- ◯ 4 - 5 years
- ◯ 5 years and above

Section 2: Teacher's Self Efficacy

Teacher Beliefs: The following 12 items are to gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below.

How much can you do to control disruptive behavior in the classroom? *

	1	2	3	4	5	6	7	8	9	
Nothing	○	○	○	○	○	○	○	○	○	A Great Deal

How much can you do to motivate students who show low interest in school work? *

	1	2	3	4	5	6	7	8	9	
Nothing	○	○	○	○	○	○	○	○	○	A Great Deal

How much can you do to get students to believe they can do well in school work? *

	1	2	3	4	5	6	7	8	9	
Nothing	○	○	○	○	○	○	○	○	○	A Great Deal

How much can you do to help your students value learning? *

	1	2	3	4	5	6	7	8	9	
Nothing	○	○	○	○	○	○	○	○	○	A Great Deal

To what extent can you craft good questions for your students? *

	1	2	3	4	5	6	7	8	9	
Nothing	○	○	○	○	○	○	○	○	○	A Great Deal

How much can you do to get children to follow classroom rules? *

	1	2	3	4	5	6	7	8	9	
Nothing	○	○	○	○	○	○	○	○	○	A Great Deal

How much can you do to calm a student who is disruptive or noisy? *

	1	2	3	4	5	6	7	8	9	
Nothing	○	○	○	○	○	○	○	○	○	A Great Deal

How well can you establish a classroom management system with each group of students? *

	1	2	3	4	5	6	7	8	9	
Nothing	○	○	○	○	○	○	○	○	○	A Great Deal

How much can you use a variety of assessment strategies? *

	1	2	3	4	5	6	7	8	9	
Nothing	○	○	○	○	○	○	○	○	○	A Great Deal

To what extent can you provide an alternative explanation or example when students are confused? *

	1	2	3	4	5	6	7	8	9	
Nothing	○	○	○	○	○	○	○	○	○	A Great Deal

How much can you assist families in helping their children do well in school? *

	1	2	3	4	5	6	7	8	9	
Nothing	○	○	○	○	○	○	○	○	○	A Great Deal

How well can you implement alternative strategies in your classroom? *

	1	2	3	4	5	6	7	8	9	
Nothing	○	○	○	○	○	○	○	○	○	A Great Deal

Section 3: Work Engagement

Work & Well-being Survey: The following 17 items are about how you feel at work.

*

Please indicate your opinion about each of the statements below by selecting one of the 7 responses in the columns (ranging from 0 "Never" to 6 "Every day")

	(0) Never	(1) Almost never; A few times a year or less	(2) Rarely; Once a month or less	(3) Sometimes; A few times a month	(4) Often; Once a week	(5) Very often; A few times a week	(6) Always; Every day
At my work, I feel bursting with energy.	○	○	○	○	○	○	○
I find the work that I do full of meaning and purpose.	○	○	○	○	○	○	○
Time flies when I'm working.	○	○	○	○	○	○	○
At my job, I feel strong and vigorous.	○	○	○	○	○	○	○
I am enthusiastic about my job.	○	○	○	○	○	○	○
When I am working, I forget everything else around me.	○	○	○	○	○	○	○
My job inspires me.	○	○	○	○	○	○	○
When I get up in the morning, I feel like going to work.	○	○	○	○	○	○	○
I feel happy when I am working intensely.	○	○	○	○	○	○	○

I am proud on the work that I do.	○	○	○	○	○	○	○
I am immersed in my work.	○	○	○	○	○	○	○
I can continue working for very long periods at a time.	○	○	○	○	○	○	○
To me, my job is challenging.	○	○	○	○	○	○	○
I get carried away when I'm working.	○	○	○	○	○	○	○
At my job, I am very resilient, mentally.	○	○	○	○	○	○	○
It is difficult to detach myself from my job.	○	○	○	○	○	○	○
At my work I always persevere, even when things do not go well	○	○	○	○	○	○	○

Appendix B: Original Data

Table A1

SPSS output of descriptive statistics - Distributions of Respondents Age

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 20 years old	7	9.6	9.6	9.6
	20 - 29 years old	47	64.4	64.4	74.0
	30 - 39 years old	8	11.0	11.0	84.9
	40 - 49 years old	6	8.2	8.2	93.2
	50 years old or above	5	6.8	6.8	100.0
	Total	73	100.0	100.0	

Table A2

SPSS output of descriptive statistics - Distributions of Respondents Gender

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	1	1.4	1.4	1.4
	Female	72	98.6	98.6	100.0
	Total	73	100.0	100.0	

Table A3

SPSS output of descriptive statistics - Educational Background

Highest_Academic_Qualifications

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SPM / O-Level	9	12.3	12.3	12.3
	Diploma	25	34.2	34.2	46.6
	Degree	36	49.3	49.3	95.9
	Master	3	4.1	4.1	100.0
	Total	73	100.0	100.0	

Table A4

SPSS output of descriptive statistics - Years of Teaching Experiences

Experiences_Years

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 1 year	16	21.9	21.9	21.9
	1 - 2 years	8	11.0	11.0	32.9
	2 - 3 years	9	12.3	12.3	45.2
	3 - 4 years	10	13.7	13.7	58.9
	4 - 5 years	6	8.2	8.2	67.1
	5 years and above	24	32.9	32.9	100.0
	Total	73	100.0	100.0	

Appendix C: Result

Table A5

SPSS output - Mean and Standard Deviation of Total Teachers' Sense of Efficacy Scale (TSES) and its Subscales

Statistics

		TSES_Total	TSES_CM_Total	TSES_IS_Total	TSES_SE_Total
N	Valid	73	73	73	73
	Missing	0	0	0	0
Mean		81.7808	27.1644	27.4658	27.1507
Std. Deviation		14.25097	5.18816	4.74658	5.17921

Table A6

SPSS output - Mean and Standard Deviation of Work Engagement Scale (UWES)

Statistics

UWES_Mean

N	Valid	73
	Missing	0
Mean		4.2111
Std. Deviation		1.23408

Table A7

Pearson correlation between teachers' self-efficacy in instructional strategies, classroom management, student engagement and their work engagement

Correlations

		TSES_IS_Total	TSES_CM_Total	TSES_SE_Total	UWES_Mean
TSES_IS_Total	Pearson Correlation	1	.752**	.886**	.368**
	Sig. (2-tailed)		<.001	<.001	.001
	N	73	73	73	73
TSES_CM_Total	Pearson Correlation	.752**	1	.860**	.341**
	Sig. (2-tailed)	<.001		<.001	.003
	N	73	73	73	73
TSES_SE_Total	Pearson Correlation	.886**	.860**	1	.415**
	Sig. (2-tailed)	<.001	<.001		<.001
	N	73	73	73	73
UWES_Mean	Pearson Correlation	.368**	.341**	.415**	1
	Sig. (2-tailed)	.001	.003	<.001	
	N	73	73	73	73

**. Correlation is significant at the 0.01 level (2-tailed).