

# A Causal Model of Psychological Capital and Job Resources, with Work Engagement as a Mediator, Affecting Flow at Work of Teachers under the Secondary Educational Service Area 3 Office

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## Abstract

This research aims to 1) study the level of Psychological capital, Job resources, Work engagement and Flow at the work places of teachers under the Secondary Educational Service Area 3 Office; 2) study the factors affecting the Flow at work of teachers under the Secondary Educational Service Area 3 Office; and 3) develop and check the compliance with the causal model of Psychosocial capital and Job resources through Work engagement that affects Flow of work for teachers under the Secondary Educational Service Area 3 Office. The data was collected by using a questionnaire developed by the researcher for 400 teachers from 47 schools in the Secondary Educational Service Area 3 Office, 400 copies of the questionnaire were returned, accounting for a total 100 percent return rate. The statistics used in the data analysis include descriptive statistics, correlational coefficients, confirmation analysis, and analysis of structural equation models. The research found that 1) Psychological capital, Job resources, Work engagement, and Flow at work were at a high level of performance; 2) the factors that contributed to the Flow at work of teachers under the Secondary Educational Service Area 3 Office including Psychological capital and Work engagement; 3) the cause relationship of factors influencing Flow at work of teachers under the Secondary Educational Service Area 3 Office, consistent with the empirical data based on the chi-squared value (df) of 49.71, the probability (P) is 0.19314 at the independent degree (df) of 42 relative chi-square. The chi-square/df was 1.18. The GFI was 0.98. The modified AGFI was 0.96. The mean square root of the standard deviation of the standardized RMR was 0.026, and the root mean square error of RMSEA was 0.021. All of these numbers equating to a positive correlation amongst all the factors investigated in the workplace of teachers for this study.

**Keywords:** Flow at Work, Psychological Capital, Job Resources, Work Engagement, Teacher

## **Introduction**

The advancement of information and communication technology has an impact on the economy and society of the country, region and the world, with the development of national education as an inevitable outcome of modernization. The Thai government has set up a 20-year national strategy (2017-2036) as a framework for determining the policy and budgeting for the country as a whole, including the education system. The government has set up the national strategic plan, Strategy 2 on Improvement of Professional Standard Quality of Teachers, Faculty and Educational Personnel (Framework for the National Education Plan, 2016). The objective is to produce and develop teachers at all levels and in all types of education to have competency and a clear career path. The national strategic plan also works on expanding knowledge and competence for teachers in a drive to boost professional development programs (Framework for Integrated Education Improvement Plan and Lifelong Learning, 2017).

The Ministry of Education has set guidelines for improving the education system and production and development of teachers and educational personnel. The focus is on the production and development of teachers, which aims to encourage and motivate teachers to work at their full potential (Ministry of Education, 2017). The schools must recognize that the success of the organization depends on proper human resource management. Teachers always have been and always will be the most important and influential resource in the classroom. Thus, the strategic plan seeks to improve education in Thailand by first improving the teachers at the front of the classroom. The plan has the objective to train more knowledgeable and skillful teachers across all subjects, especially foreign languages which often are in dire need of development.

Schools are an important part of being responsible directly for driving education forward in Thailand. However, over the passing years, the quality of education has deteriorated rather than improve. Issues and challenges affect the performance of teachers in a wide range of categories. At present, teachers are not proud and happy with their job because they think that the job is a hard, repetitive task with low payment. This concern may be a self-fulfilling prophecy having a negative impact on the effectiveness of teachers' performance and self-development (Chiengkul, 2008).

A change of the role of teachers is a challenge that requires adaptation, acceptance of new things and the commitment to work on behalf of all of the teachers. There are also other factors affecting the aspects of the teacher performance in terms of teaching and learning, policy and curriculum, parents and communities, development of the potential of teaching and learning management to suit diverse learners, both skills and interests, and the use of media and technology in accordance with the development of the country and the world. By these factors, teachers need to adjust all the time as trends in education and technology come and go. Besides, a teacher is also a profession that must be expressed appropriately in the role that society expects to uphold moral and social decency (Runhaar et al., 2012). Issues and challenges affect the effective performance of teachers in more ways than one. If teachers do not love the job, feel a lack of fun in the work itself, lack commitment, or lack motivation, the performance of educators will suffer inevitably. As a result, all difficulties influence the efficiency of teachers' performance and self-development, with some teachers experiencing a lack of motivation in all the categories mentioned above (Chiangkul, 2008). From the above-mentioned circumstances, it reflects that teachers would perform their job well if they had more commitment, concentration and engagement in the job, and a clear goal and enjoyment

in the job, so they are able to accomplish their assigned tasks with enthusiasm (Schmidt et al., 2007).

Developing teachers to work effectively requires motivation. If teachers lack motivation, they will work passively at best. On the other hand, if teachers are motivated to work, the performance will be effective and enrich the lives of the students as well. Teachers will work with their full capability to get the best quality and the most quantity of work. The quality of the teachers' performance is determined by their concentration while working. They feel that the working time has passed quickly due to the flow at work that creates internal motivation. This makes teachers love and want to do that work to experience such feelings of accomplishment again and again. Such behaviors can be described as Flow at work (Quinn, 2005) or explained that a motivating behavior in the work is an element of Flow at work (Bakker & Dermerouti, 2008). From the literature reviews, we found that many researchers advocate that Flow at work helps increasing job performance. (Csikszentmihalyi, 1975, 1990, 2000; Csikszentmihalyi and Larson 1987; Csikszentmihalyi and LeFevre, 1989).

The Ministry of Education has a policy to develop and leverage the quality to international standards as equal to other countries. From such a policy, it reflects that the schools under the Secondary Educational Service Area 3 Office should be prepared for the development of educational personnel to be able to effectively manage the teaching and learning in line with the guideline for improvement of the learning system of the Integrated Education Improvement Plan and Lifelong Learning of the Ministry of Education (Ministry of Education, 2017). Based on the studies on the O-NET results in the schools under the Secondary Educational Service Area 3 Office, consisting of Nonthaburi and Phranakhon Si Ayutthaya, it showed that the O-NET scores of the two provinces in the academic year 2015 and 2016 failed to meet the expectation in a ratio of increase and decrease (The Secondary Educational Service Area 3 Office, 2016).

According to the testing results, it indicated that the teachers under the Secondary Educational Service Area 3 Office require the development of educational personnel. Such development will help them effectively manage their teaching and learning, encourage students to learn with their full potential and to be in line with the approach to improving the learning system of the integrated plan. The leverage of education and lifelong learning of the Ministry of Education requires the students to have the national academic achievement scores (O-NET, V-NET, N-NET, I-NET) increase by "3%" in all subjects (Bureau of Policy and Strategy, 2017) by promoting Flow at work of the teachers. The teachers must be administered and implemented professionally, encouraged to have initiatives and internal motivation while working, guided for the work practice, and helped in defining a clear goal in their work (Sorensen, 2007). When the teachers have Flow at work, they are committed and dedicate themselves to work, love the job and improve the efficiency of their work to be acceptable and meet the goal required (Csikszentmihalyi, 1990), which will benefit the students and the country as a whole.

For this reason, the researcher is interested in studying the factors of pleasure in the job of teachers under the Secondary Educational Service Area 3 Office in order to know a guideline to enhance teachers' potential to find satisfaction at work, increase the quality of personnel, and respond effectively to the growing international competition in South East Asia.

## **Literary Review**

### **Concept of Flow at work**

Flow at work is one of many technical terms that people use to describe the efforts they have experienced during one of the moments that make them feel the best in life (Csikszentmihalyi, 1997). Bakker (2005) presents the concept of Flow at work as the best work experience in the short term consisting of 3 important elements (Bakker, 2007)

including 1) Absorption refers to the situation in which an employee totally focuses on the job. Employees will feel the work is done rapidly and forget everything around them that is not relevant to their job; 2) Work enjoyment means employees are happy with their work. They feel positive about their quality of life in their work; and 3) Intrinsic work motivation means employees perform various activities related to their work to experience the joy and satisfaction in the activity. Their internal motivation stimulates employees to continue to be interested in their work over a long period of time.

### **Concept of Work engagement**

Work engagement was initially studied by Kahn (1990) in terms of work involvement and work commitment in the form of thoughts, emotion, and mental attachment. This enables employees to apply their full potential to work, problem-solving, communication with people, and development of new services. (Leiter and Bakker, 2010: 2-3) Work engagement also consists of 3 components (DeLacy, 2016) as follows: 1) Distorted perception of time means that a person perceives that time is flowing quickly. But in fact, time passes slowly. This time awareness is determined by the pace and duration of the activity; 2) Intense focus means persons concentrating very much on the work or activity and cannot separate themselves from the work, so they lose awareness in other things around them; and 3) Cognitive efficiency means that persons with high energy are willing to put all their efforts into work and have patience when they face with obstacles and difficulties in work.

### **Concept of Psychological capital**

Psychological capital is a topic in Positive Organizational Behavior (POB). Luthans et al. (2007) defined the meaning of Psychological capital as a positive mental state for individual development. It is divided into 4 aspects: 1) Work self-efficacy is the person's belief that they are able to achieve challenging work successfully; 2) Optimism means individuals can identify positive causes that will lead to success in both current and future work; 3) Hope means persons are trying to reach the goal and can change the way to work to achieve the set goals; and 4) Resilience means when a person is in trouble but can stand up to the problem and regain his mental strength to return to normal in order to succeed in what is intended. These elements can be measured, developed and managed to achieve effective performance.

### **Concept of Job resources**

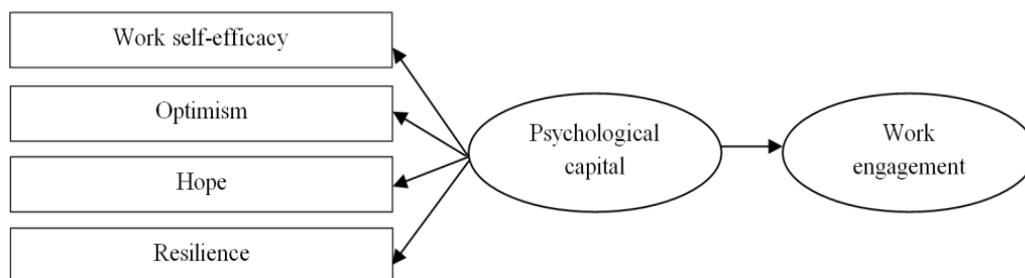
Job resources are a work environment or tools that provide resources for each employee. Job resources are defined as physical, mental, social, or organizational aspects that are composed of 4 elements (Bakker and Demerouti, 2007) as follows: 1) Autonomy - highly independent employees can handle well stressful situations. This results in energy with higher binding; 2) Social support enables employees to achieve their goals effectively. Social support from colleagues helps them finishing their work on time; 3) Performance feedback helps employees work more efficiently, especially if this feedback is accurate and specific; and 4) Relationship with the supervisor is a good job resource for employees to work well, although there are many demands in the job.

### **Relationship between Psychological capital and Flow at work**

The perception of self-capability in work or self-efficacy in work (Work self-efficacy), a component of Psychological capital, is the important power of personal factors that make a positive experience or Flow at work in the future. These feelings currently can make predictions on job pleasure that may happen in the future (Salanova, 2006) because Psychological capital has the greatest impact on behavior related to working and can be applied to enhance the personnel and create positive outcomes for the organization (Luthans et al., 2004 cited in Patcharee Srisuwan, 2014), which is in accordance with Bandura's concept (1997, 1999, 2001).

### Relationship between Psychological capital and Work engagement

Based on the research by Sweetman and Luthans (2010), which studied the relationship between Psychological capital and creative performance, it is found that the role of individual Psychological capital influences the individual's work engagement. Likewise, Halbesleben (2010) described the Psychological capital affects the commitment in the job. If anyone has high Psychological capital, the person will be highly engaged in work and fully obsessed with the job. From studies related to causal factors of Work engagement as mentioned above, we found that Psychological capital influences Work engagement that can be written as a relationship image as illustrated in Figure 1.



**Figure 1** Relationship between Psychological Capital and Job Engagement

Source: Sweetman and Luthans (2010) Halbesleben (2010) Xanthopoulou et al. (2009)

### Relationship of Psychological capital, Work engagement and Flow at work

There are research findings that support the relationship between Work self-efficacy that is one element of Psychological capital and Work engagement, such as Bakker and Liorens (2006), which found that employees who had perception of Work self-efficacy reported that they had work commitment or dedication, which is an element of Work engagement. Likewise, Bakker and Salanova (2007) found that those who had their own perception of self-efficacy at work also reported high levels of Work engagement. In addition, perception of self-efficacy at work is a variable conveying the relationship between Job resources and Work engagement as well. Moreover, Simbula et al. (2011) conducted a longitudinal study and it was found that perception of Work self-efficacy influenced Work engagement. Like the research by Luthans et al. (2007), they found that Psychological capital influences Work engagement in the work with a positive and direct correlation.

### Relationship between Job resources and Flow at work

The findings of Bakker (2005) show that one of the factors that contributed to Flow at work of the teachers and students was Job resources. This corresponds to the concept of Demerouti et al. (2001) describing the importance of Job resources to work as part of the body and mind or as a center of working that make 1) the desire to work towards the goal; 2) reduction in the work demand and an increase in the value of the body and mind; 3) stimulation of growth and development that contribute to Flow at work of the employees.

### Relationship between Job resources and Work engagement

Existing Job resources available at an organizational level can lead to Work engagement (Schaufeli and Bakker, 2004; Bakker and Demerouti, 2007). Based on the concept of Perhoniemi et al. (2008), researchers found that the presence of Job resources result in greater Work engagement. This is in line with the concept of Salanova and Schaufeli (2008) asserting that Job resources affect the thinking and feeling of employees on the job. At the same time, Xanthopoulou et al. (2009) mentioned that Job resources positively relate with reciprocal Work engagement. Furthermore, there are many empirical studies supporting the relationship between Job resources and Work engagement prediction (Liorens et al., 2006;

Hakanen et al., 2008; Mauno et al., 2007; Salanova and Schaufeli, 2008; Schaufeli et al., 2009).

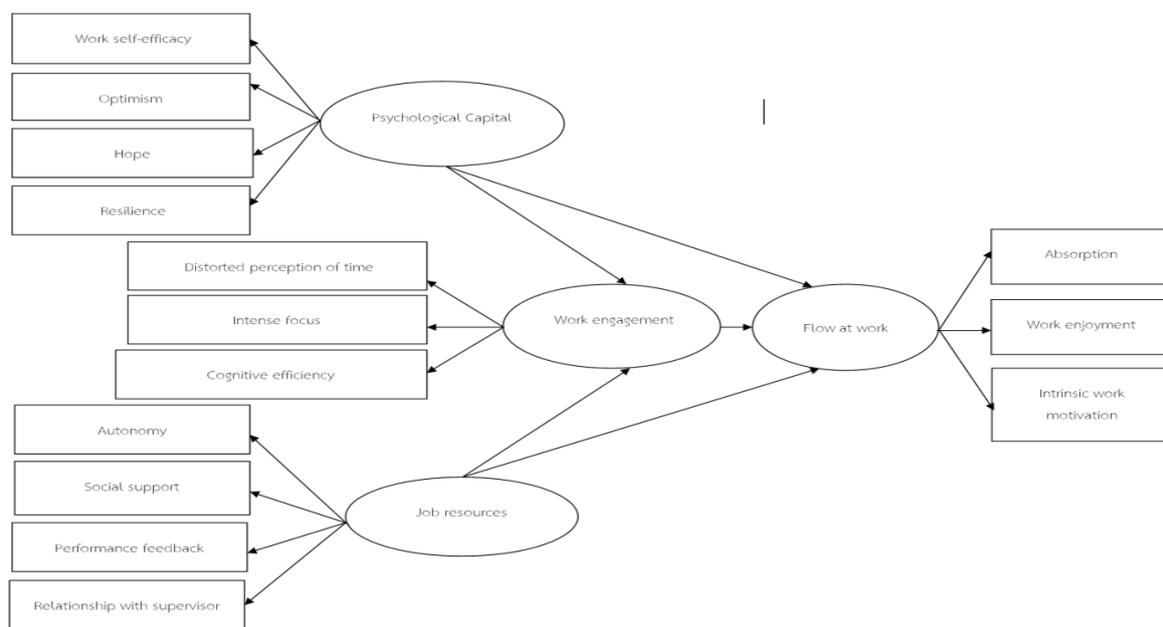
### **Relationship of Job resources, Work engagement and Flow at work**

Job resources can be an important factor for Flow at work and Work engagement prediction (Salanova et al., 2003). Similarly, the study of Shernoff et al. (2003) discloses that Work engagement generates more Flow at work, even over a period of several years. It is consistent with Csikszentmihaly (2002) who interviewed artists, mountain climbers, chess players, surgeons, school staff, and people in other professions. They showed similarly interesting experience in all of these activities, namely, the autotelic activity. The participants in the interview described the optimal state that it is the feeling of absorption, focus, and enjoyment as the feeling associated with Work engagement (Schaufeli and Bakker, 2010). In other words, it can be said that when people have Flow at work, it results in Work engagement.

### **Relationship between Work engagement and Flow at work**

From many studies, it is found that another factor causing the Flow at work is Work engagement (Csikszentmihalyi et al., 1993, cited in Nakamura and Csikszentmihalyi, 2002), in accordance with Rupayana (2008) studying Flow at work and Work engagement. He found that the class characteristics can predict the challenge skill balance, which is one element of Flow at work. He also found that this balance can predict Work engagement that results in the effort.

From the literature reviews, the researcher presents a conceptual research framework on the causal model of psychological capital and job resources through job engagement of teachers under the Office of the Secondary Education Region 3 by studying the flow at work according to Bakker's concept (2007), work engagement based on De Lacy's concept (2016), psychological capital according to the concept of Luthans et al. (2007), and job resources based on the concept of Schaufeli and Demerouti (2007) (Figure 2).



**Figure 2** Conceptual Research Framework

### **Research Hypothesis**

The researcher defined the research hypothesis as follows:

1. Psychological capital, Job resources and Work engagement directly influence Flow at work of teachers under the Secondary Educational Service Area 3 Office.

2. Psychological capital indirectly influences on Flow at work of teachers under the Secondary Educational Service Area 3 Office by having Work engagement as a mediator.
3. Job resources indirectly influences on Flow at work of teachers under the Secondary Educational Service Area 3 Office by having Work engagement as a mediator.

## Research Methodology

### Samples

The samples used in this study consisted of 400 teachers from 47 schools under the Secondary Educational Service Area 3 Office covering the areas of Nontaburi and Phranakhon Si Ayutthaya for the academic year 2017. This type of sampling follows the stratified random sampling technique according to the proportion of school size in the two provinces. The sampling process is as follows:

1. Divide 47 schools under the Secondary Educational Service Area 3 Office in Nonthaburi and Phranakhon Si Ayutthaya.
2. Calculate the number of teacher samples in each province by population proportion by using the proportion of the number of sample teachers in each school.
3. Divide the schools under the Secondary Educational Service Area 3 Office by the size of the schools according to the criteria of the Office of the Basic Education Commission (Office of the Basic Education Commission, 2006) as follows: Small schools mean schools with no more than 499 students, Medium schools refer to schools with a student population of 500-1,499, Large schools mean schools with 1,500-2,499 students and Extra-large schools mean schools with a population exceeding 2,500 students.
4. Calculate the Sampling Fraction with the following formula:

$$f_s = \frac{n_s}{N_s} = \frac{n}{N} = f$$

That is  $f_s$  is the proportion of randomness in each class.

$n_s$  is the size of the samples of each class.

$N_s$  is the size of the population of each class.

$n$  is the size of all samples.

$N$  is the size of the population.

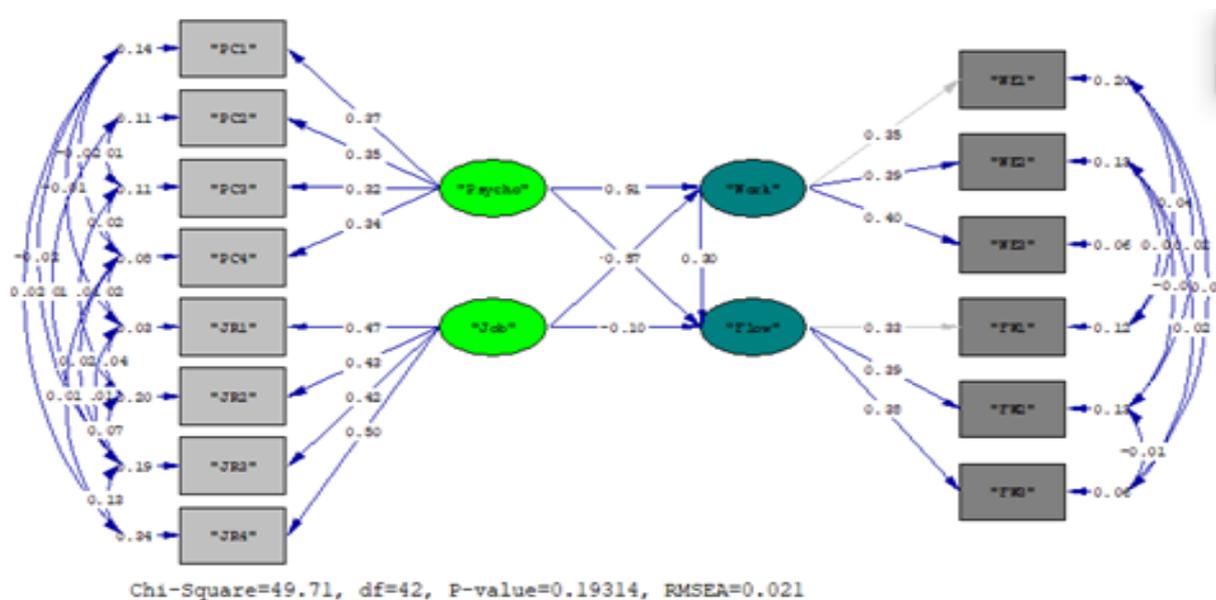
5. Random number of samples of each school in each size by using a simple random sampling method, which is a random sampling of the teacher's code to obtain the desired sample.

### Data Collection

The instrument used in this research was a questionnaire with 60 questions about the factors of Psychological capital, Job resources, Work engagement and Flow at work of teachers under the Secondary Educational Service Area 3 Office. The researcher studied the variables in the study and created the tool for collecting the data, developed and applied the concept, theories and relevant studies. The questionnaire was divided into 5 parts with the 5 point rating scale starting from 1 mark to 5 marks as follows: 5 means the level of opinion is the highest level; 4 means the high level of opinion; 3 means that the level of opinion is moderate; 2 means that the level of opinion is low; and 1 means the level of feedback is minimal or none. The reliability of the whole questionnaire using Cronbach's alpha coefficient (1990) was 0.947, indicating that the questionnaire was a suitable tool for reliability. The reliability could be classified into aspects as follows: the flow at work variables at 0.831; the work engagement variables at 0.911, the psychological capital variables at 0.815; and the job resource variable at 0.857.

## Research Results

This study analyzed the causal influence with the LISREL program and estimated the parameter value with the Maximum Likelihood (ML) Method. The researcher adjusted the model according to the recommendations of the program by taking theoretical appropriateness and possibility into consideration so that the model is the most consistent with the empirical data. After modifying the model, the results are in accordance with the empirical data very well. The research found that 1) Psychological capital, Job resources, Work engagement, and Flow at work were at a high level; 2) the factors that contributed to the Flow at work of teachers under the Secondary Educational Service Area 3 Office including Psychological capital and Work engagement; 3) the cause relationship of factors influencing Flow at work of teachers under the Secondary Educational Service Area 3 Office, consistent with the empirical data based on the chi-squared value (df) of 49.71, the probability (P) is 0.19314 at the independent degree (df) of 42 relative chi-square. The chi-square/df was 1.18. The GFI was 0.98. The modified AGFI was 0.96. The mean square root of the standard deviation of the standardized RMR was 0.026, and the root mean square error of RMSEA was 0.021 as shown in Figure 3.



**Figure 3:** Causal Model of Psychological capital and Job resources through Work engagement affecting Flow at work

## Discussion and Conclusion

Based on the hypothesis test results by analyzing the equation model of Psychological capital and Job resources through Work engagement that affects Flow at work of teachers under the Secondary Educational Service Area 3 Office, based on the hypothesis No. 1, the researcher found that Flow at work was directly influenced by psychological capital, job resources and work engagement. This discovery shows that there are 2 direct factors. The first factor is the Psychological capital. This is because the role of Psychological capital is an indicator of strong mental traits. The teachers have the ability to do their own work and to cope with various problems or challenges arising from the work. They have confidence in their potential and ability to do their own work. Salanova (2006) found that perception of self-efficacy in work, which is one element of the psychological capital, is the power of personal factors that give a positive experience or work pleasure in the future. These feelings at present can make predictions on the flow at work in the future that is in line with Bandura's concept (2001).

Bandura mentioned that the self-efficacy will show the power of being a bumper of a person in the fight against stress and will make the person healthier. Therefore, the teachers with a high Psychological potential will be able to develop themselves and have more social integration. Another factor that directly influences Flow at work is Work engagement. This is because the teacher's Work engagement means a state where the teachers commit and dedicate themselves entirely to their work, no matter how long it takes. They focus on the work they do or their assignments and are energetic and willing to work completely.

Based on the hypothesis test results by analyzing the model of the structural equation of the Psychological capital has an indirect influence on Flow at work of teachers under the Secondary Educational Service Area 3 Office by having Work engagement as a mediator.

According to the hypothesis No. 2, the researcher found that Psychological capital indirectly influences the flow at work of the teachers having work engagement to be a transmitting variable.

This discovery shows that the teachers who have a positive behavior at work, are satisfied with their work and happy to work, in particular the component of perception of work self-efficacy because of its higher indirect coefficients value than those of other components. This will affect both direct and indirect Work engagement. That is, Psychological capital is a factor generating Work engagement. The teachers recognize their abilities at work and have an optimistic behavior, hope, and the ability of resilient behavior that can result in concentration on the work, no matter how long the time goes by. They are fully energetic to do their job and see the success in the future that they can do it. As a result, the teachers have Psychological capital to dedicate to work with full effort. Luthans et al. (2007) found that Psychological capital can predict performance and Flow at work. Like Hobfoll's study (2001), he asserted that Psychological capital not only creates a positive energy in the mind of the person but also prevents the loss of positive energy, serving to build upon and preserve itself. The findings are based on the hypothesis testing results by analyzing the model of structural equation of Psychological capital and Job resources through Work engagement that influences Flow at work of teachers under the Secondary Educational Service Area 3 Office.

According to the hypothesis No. 3, the researcher found that Job resources have direct and indirect negative influences on work pleasure for the teachers. This finding shows that the teachers experience "Burnout" because it always happens in professional careers, such as nurses, teachers, police, counselors and lawyers (Maslach, 1982). This is associated with the study of Ekachai Kamollert (2011) that found that the factor causing Burnout for the teachers is workload. A teacher is another profession that can easily experience Burnout as the workload of teachers each day is too much and makes them have less time to devote to teaching, and eventually they go through emotional exhaustion. The teachers feel the value of the work is down, do not set goals in the work, despair, disappointment, discouragement in work or life become the norm. In addition, they feel negatively about their work, they are not proud of the job and lack happiness in the work. If the teachers are tired of doing the work, then they will lack the positive feeling in the work. Moreover, the teacher profession is a profession that requires knowledge in both science and art in teaching under the expectation of parents, community and society as a whole.

## **Recommendations**

1. Flow at work is a condition of a person who directly affects the quality of work, in particular in the context of the school. The administrators and affiliated agencies should develop work pleasure in the teachers' work in a concrete way, for example supporting and encouraging them to work with fun under a positive working atmosphere. They should also provide a project to develop or motivate the teachers by realizing the teachers' interest and needs.

2. The study found that the Job engagement variable is important to generate the flow at work of the teachers as both a direct impact and transmitting variable. It shows that teachers who are committed to the job will be able to perform well. Accordingly, the administrators and affiliated agencies should always promote and develop positive emotions at work and encourage the teachers to behave with dedication in the best possible way, and also encourage them to convey their work engagement to their colleagues or other members in the team.

3. In this study, it found that Psychological capital is a variable that affects the positive behavior of the teachers related to their performance. The administrators and affiliated agencies should encourage the teachers to work with hope, plan to develop them to be confident in their ability and to be capable to face problems arising from their work well by providing activities, training or seminars focused on the psychological capital development of the teachers, devoting behavior, ability to see a problem to be an opportunity for self-improvement and confidence in the ability to do their own work.

4. The study found that Job resources include a working environment that encourages the teachers to achieve their goals. Thus, the administrators and affiliated agencies should create a good working atmosphere that allows the teachers to participate in decision making at the assigned tasks, provides training and development to enhance the potential in work, team working, creative feedback, and build a good relationship within the organization.

#### **Recommendations for Future Research**

1. There should be a study more on Job resources variable to know the factors related to Job resources and Flow at work and components of Job resources that can be studied in the next research.

2. It should focus on factors stimulating or generating motivation for teachers or study policies that may be related to work pleasure of teachers, such as coaching, professional learning community, and Education in Thailand 4.0.

3. There should be a study on the effects of the Flow at work on the efficiency of students, effective performance of teachers, or variables of work pleasure reflecting leadership of the school administrators in a Thai context.

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