

Factors Affecting Teacher Professional Learning of Teachers of English in Secondary Schools under the Office of Basic Education Commission

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Abstract

The objective of this study was to explore factors that may affect teacher professional learning of teachers of English in secondary schools under the Office of Basic Education Commission. The factors consisted of Personal Factors, Task Factors, Work Environment Factors and Motivation. A sample of 375 was randomly selected, by stratified sampling technique, from teachers who taught in secondary school under OBEC in Bangkok Metropolitan Region, during the 2017 school year. The research tool was a questionnaire which consisted of 5 latent variables - Personal Factors, Task Factors, Work Environment Factors, Motivation and Teacher Profession Learning with reliability of .952, .919, .939, .949, and .950 respectively. The data were analyzed in the forms of descriptive statistic and LISREL program.

The results were as follows: 1) Personal Factors, Task Factors and Work environment Factors predicted teacher professional learning directly. The measurement model was validated with empirical data ($R^2=0.810$). 2) The direct influence of Motivation contribute positively to teacher professional learning which the structural measurement model was validated with empirical data ($R^2=0.582$). 3) Indirect influence of Task Factors and Work environment Factors to teacher

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professional learning through Motivation as mediator variable, was perfectly which agreed with the empirical data ($R^2=0.843$). The structural relationship model was validated with empirical data ($\chi^2 = 130.900$, $df = 120$, $P\text{-value}=0.234$, $\chi^2 / df = 1.091$, $GFI = 0.970$, $AGFI = 0.940$, $NFI = 0.990$, $NNFI = 1.000$, $CFI = 1.000$, $RMR = 0.016$, $SRMR = 0.032$ $RMSEA = 0.016$) and the model as a whole explained 84 percent of variation in teacher professional learning.

Keywords: Personal Factor, Task Factor, Work Environment Factor, Motivation, Self-determination Theory, Teacher Professional Learning

ปัจจัยที่มีอิทธิพลต่อการเรียนรู้วิชาชีพของครูสอนภาษาอังกฤษ ระดับมัธยมศึกษาสังกัดสำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน

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บทคัดย่อ

วัตถุประสงค์เพื่อ 1) ศึกษาอิทธิพลของปัจจัยด้านบุคคล ด้านภาระงาน และด้านสิ่งแวดล้อมในการทำงาน ที่มีต่อการเรียนรู้วิชาชีพของครูผู้สอนภาษาอังกฤษ 2) ศึกษาความสัมพันธ์ระหว่างปัจจัยทั้งสามด้าน แรงจูงใจ กับการเรียนรู้วิชาชีพฯ และ 3) ศึกษาความสัมพันธ์โครงสร้างเชิงเส้นระหว่างปัจจัยทั้งสามด้านกับการเรียนรู้วิชาชีพฯ มีแรงจูงใจเป็นตัวแปรคั่นกลาง กลุ่มตัวอย่างเป็นครูผู้สอนภาษาอังกฤษระดับมัธยมศึกษา สังกัด สพฐ. ในเขตกรุงเทพฯ และปริมณฑล 375 คน เครื่องมือวิจัยเป็นแบบมาตรวัดประเมินค่า ประกอบด้วยกลุ่มตัวแปร จำนวน 5 กลุ่ม ได้แก่ ปัจจัยด้านบุคคล ปัจจัยด้านภาระงาน ปัจจัยด้านสิ่งแวดล้อมในการทำงาน แรงจูงใจ และการเรียนรู้วิชาชีพของครูผู้สอนภาษาอังกฤษ ค่าความเชื่อมั่น .952 .919 .939 .949 และ .950 ตามลำดับ วิเคราะห์ข้อมูลโดยใช้โปรแกรมสำเร็จรูปทางสถิติและโปรแกรม LISREL เป็นสถิติพรรณนาและสถิติอ้างอิง

ผลการวิจัยพบว่า 1) ทั้งสามปัจจัย มีอิทธิพลทางตรงต่อการเรียนรู้วิชาชีพฯ และตัวแบบการวัดมีความตรงเชิงโครงสร้างกับข้อมูลเชิงประจักษ์ ($R^2=0.810$) 2) แรงจูงใจมีอิทธิพลทางตรงต่อการเรียนรู้วิชาชีพของครูผู้สอนภาษาอังกฤษ ($R^2=0.582$) 3) ปัจจัยด้านภาระงาน และด้านสิ่งแวดล้อมในการทำงาน มีอิทธิพลทางอ้อมต่อการเรียนรู้วิชาชีพฯ ผ่านแรงจูงใจเป็นตัวแปรคั่นกลาง ($R^2=0.843$) ตัวแบบความสัมพันธ์เชิงโครงสร้างสอดคล้องกับข้อมูลเชิงประจักษ์ ($\chi^2 = 130.90$, $df = 120$, $P\text{-value} = 0.234$, $\chi^2 / df = 1.091$, ดัชนี GFI = 0.970, AGFI = 0.940, NFI = 0.990, NNFI = 1.000, CFI = 1.000, RMR = 0.016, SRMR = 0.032 RMSEA = 0.016)

คำสำคัญ: ปัจจัยด้านบุคคล ปัจจัยด้านภาระงาน ปัจจัยด้านสิ่งแวดล้อมในการทำงาน แรงจูงใจ
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Introduction

Nowadays, English language has increased its importance not only as a language of worldwide communication but also a means of social advancement. In Asia, all member countries of the Association of Southeast Asian Nations (ASEAN) have put emphasis on English language teaching (ELT) improvement in order to prepare their citizens for the existing ASEAN Economic Community (AEC). The AEC integration is expected to foster an environment viewing human resources, professional qualifications, and English fluency as the indicators for success of all member countries and their citizens. Therefore, the demand for good ELT approaches is significant (Kaur, Young, and Kirkpatrick, 2016).

In Thailand, Educational policies concerning English run the full ambit from formal legal acts passed by parliament to implicit policies based on how Thai educational system is set up (Darasawang & Todd, 2012). The development of English language skills for Thai citizens has been an on-going process with a big-budget investment, various reforms and strategies. The attempt to improve education and English studies has been like a breath of fresh air. (Kaur, Young, and Kirkpatrick, 2016). Internationalization of basic education was an initiative that accelerated the use of English as a medium of instruction in schools according to a changing education paradigm worked as a catalyst for the Thai Government to introduce education reform through the National Education Act (NEA) of 1999. The NEA's policies were succeeded by the Basic Education Core Curriculum (BEC) in 2008 which was designed to confront the demands of globalization. It focused on preparing Thai students to keep up with the rapid economic, technological, and social transformations that were occurring within the country. The BEC 2008 recommended eight learning areas including a foreign language. While English was approved as a core language, teaching of other foreign languages such as French, German, Chinese, and Japanese was left at each school's discretion. (Ministry of Education, 2008; Kaur, Young, and Kirkpatrick, 2016). However, there have been suggestions that the English language learning and teaching reforms in Thailand have failed Education First (2017) has compiled the EF English Proficiency

Index to measure English proficiency around the world with index ranks 80 countries and territories based on test data from more than one million who took the EF Standard English Test (EF SET) in 2016. The result was the average English proficiency of Thais was higher in low proficiency with 49.78 scores 55th ranking out of 80 countries and still lower than that of people of other ASEAN countries. Kongkerd (2013) accepted that current pedagogical approaches to English teaching in Thailand are not able to help learners become competent English users. There was an evidence suggests an increased emphasis on high stakes testing and accountability is changing the nature of classroom transactions which has impacted in various ways on the classroom motional climate, through influencing the nature of student/teacher interactions and behaviors. It was teacher emotion. Stress and poor emotion management continue to rank as the main reasons impact their teaching and working in the profession.

Although there were many strategies and procedures applied to convey the success of improving English communication for Thai people, their English ability is still unacceptable. There are many reasons to be considered in this issue. One of those is teachers and their teaching capacity. It is often the teachers who are blamed as being the main cause of the problems associated with the policy's lack of success: their poor levels of English make it difficult for them to carry out the policy's goals (Vacharaskunee, 2000); they are unaware of how to work with the new teaching approaches (Prapaisit de Segovia & Hardison, 2008), which leads to suggestions that these teachers need more professional development (Todd, 2001 and Prapaisit de Segovia & Hardison, 2008).

Professional teachers of English (Thai teachers) are urgent need for teaching English in Thailand because society today requires professionals to constantly adapt their knowledge and skills to the ever-changing environment they act in. This also holds for the professionals that work in school environments as teachers (Wal et al, 2014). As a result of being professional on learning, practicing teachers themselves have to learn new ways of teaching (Kwakman, 2003). Moreover, to ensure the best education for Thai students, teachers are; therefore, asked to spend time to attend

professional learning. We define Teacher Professional Learning (TPL) as the process by which teachers acquire the knowledge, skills, and values that will improve the service they provide to their students (Wal et al, 2014).

Kwakman (2003) suggested it is not only school that can stimulate teachers to engage in TPL, but also teachers' motivation. Self-determination Theory (SDT) proposes an alternative way to achieve goal of engaging in TPL. SDT is not exactly the same with other motivation theories that are popular in organizational behavior. It is based on the assumption that human beings are inherently self-motivated and individuals' motivation not only differ in its amount and quantity, but also in its nature and quality (Guo, 2007).

In this study, therefore, the relationship between 3 factors that affect teachers' professional learning – Personal Factors, Task factors and Work Environment Factors. Particularly, Self-determination Theory was employed as a theoretical mediator to investigate to what extent secondary school teachers are motivated to engage in TPL.

Literature Review

Motivation Theory

Motivation is a way of creating high level of enthusiasm to reach organizational goals, and this situation is accommodated by satisfying some individual need. Basically, motivation refers to achieving organizational main goals by satisfying individual employee's needs or demands. Motivation is very important for the managers and officers to know and understand why people behave differently at workplace and how to manipulate their behavior so that they exert their best efforts to achieve organizational goals. It is the goal of managers at every stratum to have employees motivated so that work can progress at desired rate, pace and time (Haque, Haque and Islam, 2014). There are 3 polarities of motivation - Positive and Negative Motivation, Internal and External Motivation and Basic and Learned Motivation - that are found in the theories and that serve to create clarity on one's own motivation (Chawla & Sujatha, 2015).

Self-determination Theory

Self-Determination Theory (SDT) is a rapidly growing theory of motivation in the academic literature and it is a theory of human motivation that addresses individuals' initiation of behavior (Noour and Hubbard, 2015). SDT can provide a fruitful framework to explain the differences found in the research. According to SDT, individuals need to experience autonomy, competence, and relatedness in order to adapt and develop successfully (Veern, 2013). The need for autonomy refers to the perception of freedom of choice, self-organization and integration of self-regulation. The need for competence consists of experiencing feelings of mastery, efficacy and a sense of control. Relatedness is the need to be connected to others and engaged in authentic and harmonious relationships characterized by trust and acceptance. Satisfaction of these three needs results in more positive outcomes whereas the opposite occurs when the basic needs are thwarted (Fernet, Trépanier, & Austin, 2012).

Broeck, Vansteenkiste, De Witte, & Lensa, (2008) said SDT differentiates types of motivation based on the different reasons or goals that give rise to an action. They are Amotivation (AM), Extrinsic Motivation (EM) and Intrinsic Motivation (IM). AM refers to non-self determination, and it results from not valuing a task (Noour and Hubbard, 2015). Deci and Ryan (2002) identified that AM is individual behavior acting through the motions with no intention to do what one does. For example, learners who are suffering lack of intention to engage into the learning process due to lack of teaching materials. IM refers to doing something because it is inherently interesting or enjoyable. When intrinsically motivated a person is moved to act for the fun or challenge entailed rather than because of external prods, pressures, or rewards. Classroom and home environments can facilitate or forestall intrinsic motivation by supporting versus thwarting the needs for autonomy and competence. However, intrinsic motivation will occur only for activities that hold intrinsic interest for an individual — those that have the appeal of novelty, challenge, or aesthetic value for that individual (Deci and Ryan, 2000). Finally, EM refers to doing something because it leads to a separable outcome. Therefore, EM contrasts with intrinsic motivation. SDT

proposes that extrinsic motivation can vary greatly in the degree to which it is autonomous. For example, a student who does his homework only because he fears parental sanctions for not doing it is extrinsically motivated because he is doing the work in order to attain the separable outcome of avoiding sanctions. (Deci and Ryan, 2000).

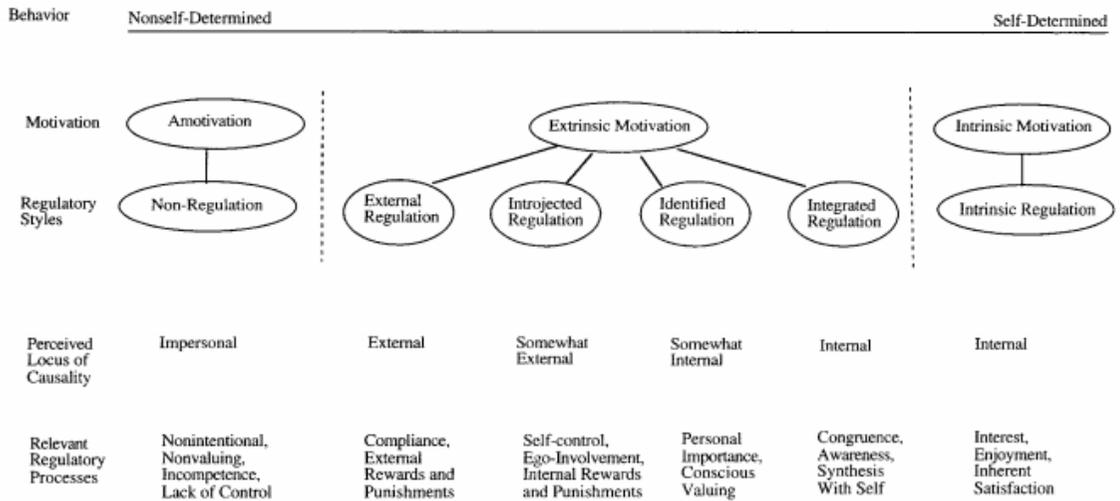


Figure 1 The Self-Determination Continuum Showing Types of Motivation With Their Regulatory Styles, Loci of Causality, and Corresponding Processes

Within SDT, Deci and Ryan (2000) detailed the different forms of extrinsic motivation and the contextual factors that either promote in a second subtheory, called organismic integration theory (OIT). It was to either promote or hinder internalization and integration of the regulation for these behaviors.

Teacher Professional Learning

Professional learning represents an enormous investment and directs at ensuring that the teaching and learning in schools is up to date and effective. If teachers, school leaders, and governments are going to expend energy and resources on professional learning, an understanding is needed about the kinds of learning that help teachers develop and grow in ways that will serve all students well, even as expectations of students and schools are constantly changing. The effective ways to

lead successful Teacher Professional Learning depend on the professional learning context, the content of professional learning, the activities that are included in professional development program, the learning process, teacher responses and the impact on learners (Timperley et al, 2007). Teachers have to learn new conceptions of content and pedagogy. As these kinds of changes in roles are at stake, traditional ways of learning characterized by transmission of knowledge are bound to miss the mark. Instead, teachers have to acquire competencies that help them fulfil this new role (Kwakman, 2003).

There are three professional learning principles within the fields of school improvement and organizational learning theories. First of all, participation in activities is present in school improvement and organizational development theory. The second principle is individual and collaborative learning which work together significantly. Professional goal is the third learning principle. These three learning principles come up with a definition of learning at the workplace. The first two principles conclude that learning at the workplace may be conceptualized as participation in activities at an individual and at a collaborative level. The third learning principle helps to further restrict the range of individual and collaborative activities that teachers may participate in by stressing that those activities have to help teachers in their professional development (Kwakman, 2003).

As Adult Learning Theory, Social Psychological Theory of Work Stress and Perceived Organizational Support fit the research conceptualization of teacher learning as participation in professional learning activities, those will thus be choices in this study which are presented below.

Adult Learning Theory

Kwakman (2003) used adult learning theory and social psychological theory of work stress to fit her conceptualization of teacher learning as participation in professional learning activities.

Skilful adult educators have known for a long time that they cannot teach adults as children have traditionally been taught. For adults are almost always voluntary learners, and they simply disappear from learning experiences that don't satisfy them. So the practice of adult education has in fact been departing from traditional pedagogical practices for some time. The term andragogy can be

supposedly equivalent to the term pedagogy (Knowles, 1970). Several implications for the technology of andragogy flow from this difference between the child and the adult learning which are The Learning Climate, Diagnosis of Needs, the Planning Process, Conducting Learning Experiences and Evaluation of Learning.

Andragogy is premised on four crucial assumptions about the characteristics of adult learners. These assumptions are that (1) self-concept moves from one of being a dependent personality toward one of being a self-directing human being; (2) experience that becomes an increasing resource for learning; (3) readiness to learn becomes oriented increasingly to the developmental tasks of his social roles; and (4) time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly his orientation toward learning shifts from one of subject centeredness to one of problem-centeredness (Knowles, 1970).

Social Psychological Theory of Work Stress

Stress is arising from the appraisal that particular environmental demands which involve the stressor from environment to the individual, the response of the individual (Physical and Mental) to stress and the relationship between stressor and reaction to the stressor Dewe, O'Driscoll and Cooper (2010). Causes of work stress consist of 5 factors - Intrinsic to the job, Role in the Organization, Relationships at Work, Career Development and Organizational Structure and Climate – that can happen to everyone (Dewe, O'Driscoll and Cooper, 2010).

Perceived Organizational Support

Perceived Organizational Support (POS) is the employees' view of how much the organization values their contribution and cares about them. Employees see their employment as a reciprocal exchange relationship that reflects relative dependence and extends beyond a formal contract. Employees need to determine whether, and to what extent, an organization will recognize and reward their effort, support their socio-emotional needs, and help them on request (Eisenberger et al, 1986, Allen et al, 2008).

Three general categories of Perceived Organizational Support can discuss the relationship with POS. They are fairness, supervisor support, and organizational rewards and job conditions should increase POS. Organizational support theory supposes that employees personify the organization, infer the extent to which the organization

values their contributions and cares about their well-being, and reciprocate such perceived support with increased commitment, loyalty, and performance. Organizational support theory provides a general approach to the role of the reciprocity norm in employee–employer relationships. (Allen et al, 2008)

Factors affecting teachers' professional learning activity

There are three factors (Personal Factors, Task Factors and Work Environment Factors) affect teachers' professional learning activity. According to Kwakman (2003), her study explored the factors that affect teachers' professional learning activity with teachers in the Netherlands. The result found evidence for factors that predict participation in professional learning activities. The study was concluded that different combinations of predictor variables account for this variance in each type of the three professional learning activities (Collaborative Activity, Individual Activity and Instructional Activity). As a result, this study really wanted to confirm that in Thailand, the three factors (Personal Factors, Task Factors and Work Environment Factors) affect teacher professional learning as well. Moreover; Self-determination Theory was carried out as a moderator because a lot of studies have shown that the motivation moderated the relationship between independent variables and dependent variables (Zho, 2015).

Conceptual framework

Summarizing the results of the literature review into factors influencing teacher professional learning, 18 different factors were revealed: six personal factors, five task factors, three work environment factors, and four motivation factors. Based on the outcomes of this study, a conceptual framework (see Fig. 2) has been constructed in which features of the person, the task, and the work environment are independent variables, and the motivation is moderator whereas teacher professional learning is a dependent variable.

In conclusion, after studying several researches related to the dependent variable, teacher professional learning activity. The factors affected directly and indirectly on teacher professional learning were: 1) **Personal Factors** had a significant direct effect on teacher professional learning (Kwakman, 2003) and indirect effect on teacher professional learning through motivation. 2) **Task Factors** had a positive direct

effect on teacher professional learning (Kwakman, 2003) and indirect effect on teacher professional learning through motivation 3) **Work Environment Factors** had a significant direct effect on teacher professional learning (Kwakman, 2003) and indirect effect on teacher professional learning through motivation. And 4) Motivation had a significant direct effect on teacher professional learning (Wal et al, 2014). As a result, the conceptual framework is expressed below:

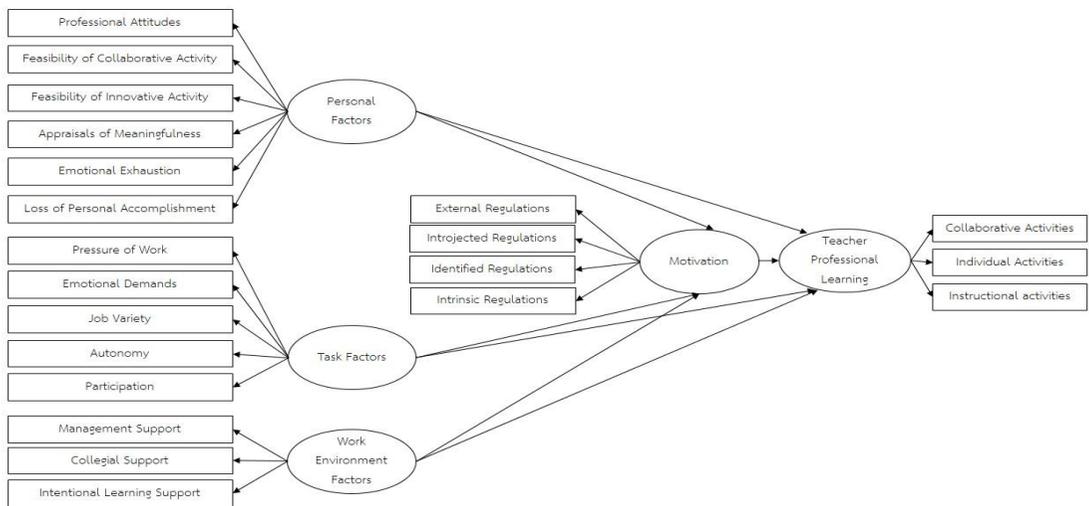


Figure 2 Conceptual Framework

The purposes of this study was to explore factors that may affect professional learning of teachers of English in secondary schools under the Office of Basic Education Commission.

The hypothesis of this study were: 1. Personal factors, task factors, and work environment factors directly affects teacher professional learning. 2. Motivation directly affects teacher professional learning and 3. Personal factors, task factors, and work environment factors has indirect effect on teacher professional learning through motivation.

The expected benefits of this study were new ideas about motivation that influences teachers to participate in teacher professional learning and formulate the policy as strategic plans to encourage self-improvement in teachers by school/organization supports

Research Methodology

Research Instruments

The instrument carried out in this study was a questionnaire, and its quality has been validated by 5 experts. Then the generated questionnaire was tried out with the non-sample population of 30 teachers from 5 schools to check the questionnaire reliability using finding the alpha coefficient (α -Coefficient) of Cronbach (1984). The improved questionnaire was then used as a tool to collect data from the sample set. The data were collected from 375 teachers by mail and there were 375 completed questionnaires, which accounted for 100 percent. All of the instrument carried out in this study was a questionnaire. Teachers were asked to indicate to what extent they agreed with bearing these responsibilities on a 5-point scale (1 = disagree; 2 = slightly disagree; 3 = slightly agree; 4 = agree, and 5 = strongly agree).

Adult learning theory and social psychological theory of work stress were used in Personal Factor. The choice of adult learning theory is fit in learning activities as this is a familiar research topic. Kwakman (2003) said that the use of work stress theory may be surprising. However, this choice was inspired by the fact that this theory conceptualizes learning as active usage of learning opportunities within the working environment. Both theories helped to discern relevant factors. Concerning personal factors, five factors were discerned. Five task factors were derived from the job demand control model. The model is based on the interaction between job demands and job control. Social support as well as cultural support are both considered as important in Work Environment Factor.

The personal, the Task, and the Work Environment factor are independent variable consists of 13 different factors were revealed: five personal factors, five task factors, and three work environment factors.

SDT is an approach to human motivation. It detailed the different forms of extrinsic motivation and the contextual factors. Twelve items identifying the reasons teachers participate teacher professional learning according to each SDT's character.

As individual and collaborative learning is widely addressed in professional development approaches in which both levels play a significant role. Teachers' learning is also strongly connected to professional goals which demand teachers to strive for continuous improvement of their teaching practices (Kwakman 2003). All of

the three domains are based on Adult Learning Theory which consists of adult and professional learning principles. Thirteen items were used to ask the teachers' opinion about Teacher Professional learning with those three activities.

Research method

This study is a quantitative research. The research population is 3,782 teachers who taught in secondary schools under OBEC in Bangkok metropolitan region (Bangkok, Samutprakarn, Nonthaburi, and Pathumthani). All school providing English/Mini English Program. The sample was acquired by analyzing the variables: 375 selected secondary school teachers were used as a sample based on the concept of statistical analysis of structural equation model (SEM) according to Yamane, (1967), the sample size was 338 teachers. This study added more 37 samples as a basic correction formula to decrease the risk of the error data which was from the psychological questions (Schema et al, 2010). Finally, the sample size was 375 teachers. The sample consists of 65 men (17.33%) and 310 women (82.67%). 301 samples had bachelor's degree, or 80.27%. 318 teachers had a degree in the field of English, or 84.80. 115 samples or 41.33% had experience in teaching less than 5 years. 270 teachers taught 13-18 hours a week at school, 72.00%. 326 teachers taught only in regular program, 86.91%.

Data Analysis

The SPSS program analyzed the reliability of questionnaire which is the technique to measure the effectiveness of an instrument, whether it is fluent or similar or the same. And it must be no different effect or consistent by the calculated value that is called alpha (α). A reliability coefficient of .70 or higher is considered acceptable. The quality of the whole measurement by finding the reliability of the measuring instrument using the Cronbach alpha procedure, calculated results from the program showed that the questions had reliability of .942, which was acceptable.

Data analysis and processing perform basic data analysis, analyze relationships between variables, factor analysis and analyze causal relationship model with the SPSS program and LISREL program. Analyze direct influence and an indirect influence of casual factors and analyze the validity of the model by examining the consistency of the hypothesis model with empirical data with chi-square index, relative

chi-square index, RMSEA index, GFI index, AGFI index, RMR index and standardized RMR index (Hooper et al., 2008).

Results/Findings

The LISREL program was used for this causal influence analysis by estimating the parameters and by maximum likelihood (ML). The study results were the development of a causal relationship model of factors affecting teacher professional learning was found to be consistent with the empirical data, where the chi-square value was 130.90, the P-value was 0.23381 at degree of freedom (df) of 120, the chi-square/df value was 1.091, the GFI index was 0.970, the AGFI index was 0.940, the NFI index was 0.990, the NNFI index was = 1.000, the CFI index was 1.000, the RMR was 0.016, the SRMR = 0.032, and RMSEA was 0.016. The casual relationship model could explain the variance of the Motivation by 52% and the variance of teacher professional learning by 84% as shown in figure 3.

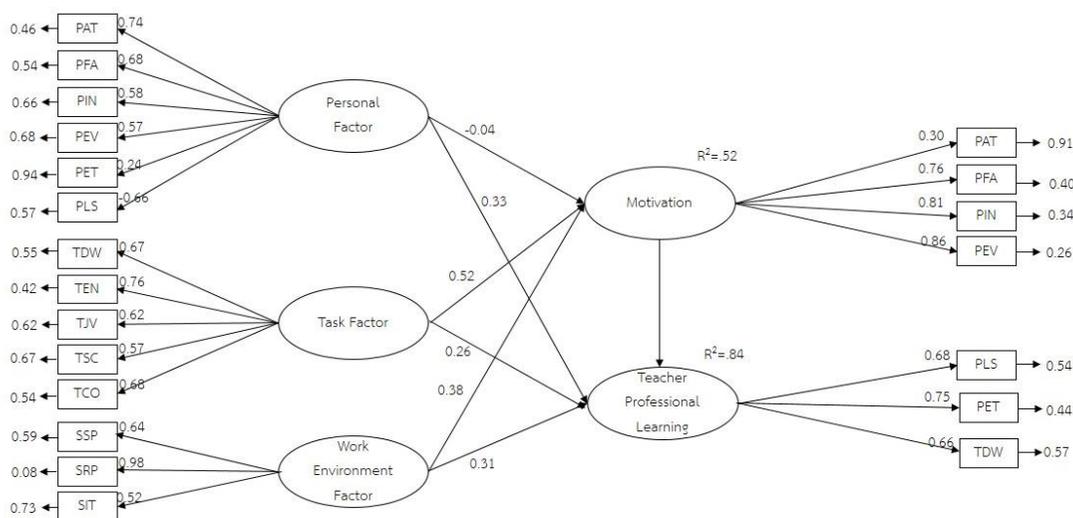


Figure 3 The causal relationship model of factors affecting teacher professional learning. Chi-square goodness of fit = 130.900, df = 120, P-value=0.234, $\chi^2 / df = 1.091$, GFI = 0.970, AGFI = 0.940, NFI = 0.990, NNFI = 1.000, CFI = 1.000, RMR = 0.0160, SRMR = 0.0320, and RMSEA = 0.016

Note: R-squared (R^2) is a variable of the explanatory variable contained in this linear model in percentage. The definition of R-squared is fairly straight-forward; it is the

percentage of the response variable variation that is explained by a linear model. R-squared means the explained variation or total variation. R-squared values are between 0%-100%. 0% indicates that the model explains none of the variability of the response data around its mean. 100% indicates that the model explains all the variability of the response data around its mean.

Table 1 The effect of factors analysis in causal relationship model of factors affecting teacher professional learning

(Dependent Variables)	Effect	(Independent Variables)			
		(PSNL)	(TASK)	(WEVM)	(MVTC)
(MVTC)		-0.07	0.55**	0.37**	-
	DE	(0.13)	(0.16)	(0.10)	-
		-0.52	3.46	3.65	-
	IE	-	-	-	-
		-	-	-	-
	TE	(0.13)	(0.16)	(0.10)	-
(TPFL)		0.32*	0.27	0.02	0.42**
	DE	(0.14)	(0.15)	(0.07)	(0.12)
		2.31	1.87	0.28	3.44
	IE	(0.05)	(0.07)	(0.05)	-
		-0.03	0.23**	0.16**	-
	TE	(0.14)	(0.13)	(0.07)	(0.12)
	2.01	3.78	2.55	3.44	
		$R^2 = 0.52$		$R^2 = 0.84$	

** $p < 0.01$, * $p < 0.05$

Table 2 Result of factors analysis in causal relationship model of factors affecting teacher professional learning

Latent variables	Factors			Factor Loading	R-square (R ²)
	Observed Variables				
PSNL	PAT	=	Professional Attitudes	0.74	0.54
	PFA	=	Feasibility of Collaborative Activity	0.68	0.46
	PIN	=	Feasibility of Innovative Activity	0.58	0.33
	PEV	=	Appraisals of Meaningfulness	0.57	0.32
	PBT	=	Emotional Exhaustion	0.24	0.06
	PLS	=	Loss of Personal Accomplishment	-0.66	0.43
TASK	TDW	=	Pressure of Work	0.67	0.42
	TEN	=	Emotional Demands	0.76	0.60
	TJV	=	Job Variety	0.62	0.38
	TSC	=	Autonomy	0.57	0.33
	TCO	=	Participation	0.68	0.42
WEVM	SSP	=	Management Support	0.64	0.41
	SRP	=	Collegial Support	0.96	0.92
	SIT	=	Intentional Learning Support	0.52	0.27
MVTC	MEX	=	External Regulations	0.30	0.09
	MIJ	=	Introjected Regulations	0.76	0.55
	MID	=	Identified Regulations	0.81	0.66
	MIN	=	Intrinsic Regulations	0.86	0.74
TPFL	PLC	=	Collaborative Activities	0.68	0.45
	PLP	=	Individual Activities	0.75	0.56
	PLI	=	Instructional activities	0.66	0.42

Research finding

From figure 3 and table 2, the causal relationship model of teacher professional learning was showed:

The analysis results, the observed variables of each latent variable are as shown:

1. The latent variable, **Personal Factors (PSNL)**, was measured with six observed variables as defined. The observed variable with highest loading factor was Professional Attitudes (PAT) of 0.74 followed by Feasibility of Collaborative Activity (PFA), Feasibility of Innovative Activity (PIN), Appraisals of Meaningfulness (PEV), and Emotional Exhaustion (PBT) with 0.68, 0.58, 0.57, and 0.24 respectively. All the factor loading are positive, high and statistically significant at 0.56 which were greater than 0.50 that meant they measured the latent variable, PSNL, well. For Emotional Exhaustion (PBT), factor loading theoretically reflected such a problem with 0.24 which is lower than 0.50. However, Loss of Personal Accomplishment (PLS) was an only one variable that was negative and statistically significant at -0.66.

2. The latent variable, **Task Factors (TASK)**, was measured with five observed variables as defined. The observed variable with highest loading factor was Emotional Demands (TEN) of 0.76 followed by Participation (TCO), Pressure of Work (TDW), Job Variety (TJV), and Autonomy (TSC) with 0.68, 0.67, 0.62, and 0.57. All the factor loading were positive, high and statistically significant to 0.57 and above, which were greater than 0.50 that meant they measured the latent variable, TASK, well.

3. The latent variable, **Work Environment Factors (WEVM)**, was measured with three observed variables as defined. The observed variable with highest loading factor was Collegial Support (SRP) of 0.96 which was followed by Management Support (SSP), and Intentional Learning Support (SIT) with 0.64, and 0.52. All the factor loading were positive, high and statistically significant to 0.57 and above, which were greater than 0.50 that meant they can measure the latent variable, WEVM, well.

4. The latent variable, **Motivation (MVTC)**, was measured with four observed variables as defined. The observed variable with highest loading factor was Intrinsic

Regulations (MIN) of 0.86 which was followed by Identified Regulations (MID), and Introjected Regulations (MIJ) with 0.81, and 0.76. All the factor loading were positive, high and statistically significant to 0.74 which were greater than 0.50 that meant they measured the latent variable, MVTC, well. For MEX, factor loading theoretically reflected such a problem with 0.35 which was lower than 0.50.

5. The latent variable, **Teacher Professional Learning (TPFL)**, was measured with three observed variables as defined. The observed variable with the highest loading factor was Individual Activities (PLP) of 0.75 which was followed by Collaborative Activities (PLC), and Instructional activities (PLI) with 0.68, and 0.66. All the factor loading were positive, high and statistically significant to 0.66 which were greater than 0.50 that meant they measured the latent variable, TPFL, well.

To sum up, the observed variables analysis based on the maximum factor loadings values of 21 observed variables, revealed that 20 variables with positive factor loadings. They were high and statistically significant at the 0.01 level. There was only Loss of Personal Accomplishment (PLS) that had negative factor loading. When considering the factor loadings, it was found that the observed variable that had high factor loadings of each latent were Collegial Support (SRP), Intrinsic Regulations (MIN), Emotional Demands (TEN), Individual Activities (PLP), and Professional Attitudes (PAT), which had highest values of 0.96, 0.86, 0.76, 0.75, and 0.74. Therefore, they were the major observed variables for measuring the latent variables: Personal Factors (PSNL), Task Factors (TASK), Work Environment Factors (WEVM), Motivation (MVTC), and Teacher Professional Learning (TPFL).

The analysis results of the factors affecting teacher professional learning from the figure 3 showed that:

1. **Teacher Professional Learning (TPFL)** were influenced directly by Personal Factors (PSNL), Task Factors (TASK), Work Environment Factors (WEVM), and Motivation (MVTC) with the influence of 0.33, 0.26, 0.31, and 0.42, respectively.

Discussion and Recommendation

Discussion

The findings revealed that Teacher Professional Learning (TPFL) were influenced directly by Personal Factors (PSNL), Task Factors (TASK), Work Environment Factors (WEVM), and Motivation (MVTC). The variable that had the most influence on Teacher Professional Learning (TPFL) was Motivation (MVTC) with the influence of 0.42, followed by Personal Factors (PSNL), Work Environment Factors (WEVM), and Task Factors (TASK) with the influence of 0.32, 0.30, and 0.27, respectively.

General Information of the samples

The survey revealed the noteworthy information that more than 8,000 teachers of English in secondary school under OBEC out of 20,000 teachers are assistant teachers (OBEC, 2017) which means they are new, lack of experience, and under probation. Most of them can't teach well and be unable to deliver knowledge to students (Udonkit and Singpan, 2016). On account of the amount of assistant teachers, it's right to train or provide them professional learning activities to increase their teaching ability and experience.

In addition, there were more than 80% of the samples teach only students in regular program even though their school provide English/Mini English Program to students. This issue is a result of the policies of the Royal Thai Ministry of Education – teaching Thai curriculum in English within the following framework. Secondary level (Matthaayom 1-6, or grades 7-12) provides teaching and learning in English with Foreign teacher (native speakers) in all subjects except Thai and social science, in parts of Thai law, culture and tradition. This brought about there was no opportunity for Thai teacher to teach students in this program. However, Dr. Teerakiat Jareonsettasin the Education Minister stated on May 6, 2017 about the foreign language education policy that Ministry of Education has an idea to provide an opportunity to Thai teachers who are qualified for teaching Thai curriculum in English for English Program. Those who are qualified may get high salary as well as foreigners or native speakers. This

means that teachers are expected to be continually learning to improve their practice because today's educational environment requires teachers who understand teaching and learning, have strong content knowledge, and can make connections between life experiences and the curriculum. Professional learning is essential in this process (Montoro, 2012).

The causal relationship model between Personal Factors (PSNL), Task Factors (TASK), Work Environment Factors (WEVM), Motivation (MVTC), and Teacher Professional Learning (TPFL)

Teacher Professional Learning (TPFL) was directly influenced by Personal Factors (PSNL), Task Factors (TASK), and Work Environment Factors (WEVM). The result from LISREL analysis found that those three factors together predicted Teacher Professional Learning (TPFL) of 81%. Personal Factors (PSNL) had a positive direct effect on TPFL of 0.33. Task Factors (TASK) had a positive direct effect on TPFL of 0.26, and Work Environment Factors (WEVM) had a positive direct effect on TPFL of 0.31. The R square (R^2) had the value of 0.81. That means the findings above clearly support hypotheses H1, reflecting a positive relationship between Personal Factors (PSNL), Task Factors (TASK), Work Environment Factors (WEVM), and Teacher Professional Learning (TPFL). This suggests that as all these three factors toward teacher professional learning become more positive, the teachers are more likely to participate in TPFL.

The findings above clearly indicate that a positive relationship exists between Personal Factors (PSNL) and Teacher Professional Learning (TPFL). It means that as teachers have professional attitudes, they are more likely to participate in TPFL. In this regard, teachers' attitudes toward teacher professional learning is one of the key factors influencing TPFL. In order to increase the participation rate of teachers in TPFL, it is necessary to build positive attitudes toward professional development among teachers (Bayer, 2013). Feasibility of collaborative activity and feasibility of innovative activity are crucial in the process of meaning-making as judgment mirrors how personal and situational characteristics interact meaning is situation-specific in nature, appraisals elicit the meaning teachers attach to different professional learning activities by making

judgment about different features of each professional learning activity separately. Features considered as most significant to teachers are the extent to which activities are appraised as feasible and meaningful (Kwakman, 2003). So, appraisals of feasibility and appraisals of meaningfulness of separate professional learning activities the keys factors influencing TPFL. Emotional exhaustion and Loss of personal accomplishment spring from work stress theory in which it is assumed that stress and learning are mutually related stress and learning are mutually related (Kwakman, 2003). Stress was viewed as an important personal variable as it was recognized that stress is also a complex concept that can be defined in many different ways. Therefore, emotional exhaustion and loss of personal accomplishment became the important keys factor influencing TPFL in negative way.

The findings above clearly indicate that a positive relationship exists between Task Factors (TASK) and Teacher Professional Learning (TPFL). Task factors were derived from the social psychological model of work stress. It proposes that stress as well as learning result from the joint effects of job demands and the discretion permitted to the teacher in how to meet these demands (job control). The findings illustrate that there exists a negative relationship between Pressure of work, Emotional Demands, Job Variety and TPFL. Teachers brought to light that Pressure of work, Emotional Demands, Job Variety, and participation affect their participation in teacher professional learning. Teachers also reported that of the task factors, autonomy is the most important factor for determining participation in TPLC.

A positive relationship exists between Work Environment Factors (WEVM) and Teacher Professional Learning (TPFL) was also indicated in the finding above. It was interesting to note that even though management support, collegial support, and intentional learning support are important factors for teacher professional learning in theoretical aspect, they seem to have limited effect on teacher professional learning in finding. This finding is contrary to previous research of Kwakman (2003) that was conducted in the Netherlands. Consequently, the influence of Work Environment Factors (WEVM) is a statistically less significant factor for TPCL. In conclusion, Emotional Demands is the most important than others for TPLC. This finding is consistent with

previous research of Kwakman (2003), which held that there is a strong positive relationship between Emotional Demands and TPCL. According to the finding above, Work Environment Factors (WEVM) is one of the vital factors affecting TPLC.

Teacher Professional Learning (TPFL) was directly influenced by motivation (MVTG). This study offers significant new insights into our understanding of motivation on TPLC. It documents the precise interactions between External Regulations, Introjected Regulations, Identified Regulations, and Intrinsic Regulations that can predict TPLC in high level of 81%. This has an important implication for teacher professional learning. Promoting teachers' autonomous motivation is critical. The experience of making choices promotes their sense of ownership of teacher professional learning. There has been considerable progress in promoting self-determination in teachers (Zhou, 2015). Intrinsic Regulations played the most important role and it influenced TPCL the most highly of 0.86. As intrinsically motivated teachers are connected to their "core self" and determine their values and behavior according to that self, they have increased self-awareness and self-control, which helps teachers to monitor their professional learning and achieve academic learning success.

Task Factors (TASK), and Work Environment Factors (WEVM) had positive direct effects and positive indirect effect on teacher professional learning (TPLC) through motivation. Results found that TASK and WEVM had positive direct effect on TPLC of 0.27, and 0.30 and had positive indirect effect on TPLC of 0.23, and 0.16 but PNL had no indirect effect. The total effects were 0.29, 0.50, and 0.18, respectively. The R square (R^2) had the value of 0.84. Personal Factors (PNL), Task Factors (TASK), and Work Environment Factors (WEVM) can also play a large role in TPLC. Some observed variable from these three factors make the effort to improve teacher's participation in TPLC directly. However, when the three factors work through motivation, it increased teachers' self-awareness of improving themselves in any opportunity. It's because of intrinsic motivation that motivate them from deep mind

and the perception of professional being in teaching profession. Especially in Thailand, we need more teachers who can teach in English instead of hiring foreigners to teach our children in the reason of budget and the national development driven by Thai people's action.

The causal relationship model and the result of the influence of Personal Factors (PSNL), Task Factors (TASK), and Work Environment Factors (WEVM) on Teacher Professional Learning (TPLC) through Motivation (MTVN) are consistent with empirical data.

Recommendation

The interpretation of the data found the empirical factors for any levels of educational administration – school level, school district level, OBEC, Ministry of Education and government – that can be policies formation. The policy recommendations are as following groups:

As for increasing teachers' attitude, it is imperative to find strategies to improve teachers' attitudes towards teacher professional learning. Professional development must be related to teachers' needs; and after looking at the list of teacher professional learning activities offered, teacher professional learning must be offered to meet teachers' needs. Furthermore, strategies encouraging teachers to engage in a collaborative school environment should be implemented because teacher collaboration has been a common factor of professional development activity at school in order to create organizational models, professional learning communities, and critical friends groups. In addition, it is valuable to conduct a follow-up study to find out if the teachers are able to solve their teaching problems or apply what they gain from TPLC in their teaching. Perhaps, a teacher-driven TPLC may be more valuable because it may result in the delivery methods, strategies and the content areas that directly serve the participants' needs.

The strategies to promote teachers' awareness of participating teacher professional learning is not only increasing teachers' attitude, but also the action form

all facilitators to support them. In order to encourage more teacher participation, facilitators should structure the professional development to meet the three fundamental needs (autonomy, competence, relatedness), which will help internalize teachers' motivation to participate. There are many procedures to support their learning, team building technique is one of the powerful procedure. Team building technique should be implemented to improve relationships among teachers (colleagues). Team building improves the performance of a team by strengthening the relationships among team members by involving many different exercises and activities. It creates trust and cooperation among team members and it can be worked in school settings, work environments, sports, and other recreational activities. School should provide powerful opportunities for teachers to learn. It can conclude that schools have to be suited for professional learning activities to take place. The workplace poses severe no limitations to the kinds of professional learning activities in which teachers are able to participate. These are the perspectives of cognitive psychology and professional development theory regarding the role of the workplace in teachers' professional learning (Broeck, Vansteenkiste, De Witte, & Lensa, 2008). As well as the strategies mentioned above, the system might need to be revamped, so to allow headmasters greater influence over teachers in schools in order to support teacher's participation in teacher professional learning. School leaders would do well to create professional development such as funding in their budgets and time in their schedules, plan quality professional learning activities in cooperation with teachers that have content-rich and relevant strategies, share current literature on quality and effective professional practices, and model life-long, professional in order to support teacher are to grow to be the teachers they need to be. The most important thing that makes teacher perceive they are supported from school is teachers' voices should be heard. Professional learning communities should be established to reflect openness and collaboration, an environment that encourages teachers' voices to be heard. Administrators allow as much teacher choice as possible, schedule times and days that facilitate the greatest learning, and plan each learning activity well and

communicate any goals or vision equally when planning professional development activities.

Teachers cannot participate teacher profession learning if they have got many hours working at school time. More time should be made available for teachers to increase their participation in teacher professional learning. It can promote teachers' autonomous motivation which is critical. The experience of making choices promotes their sense of ownership of teacher professional leaning. There are many curricular and instructional models that have been introduced, such as the Self-Determined Learning Model of Instruction, and Project Partnership Core Course (Zho, 2015). Such models or programs position teachers in the center who are actively involved in negotiating the setting of workload, types of learning activities, or even assessment tasks, which exerts a positive influence on teachers' self-determination. Teachers are not homogenous in their levels of academic motivation or in their personalities. Continuous monitoring of student personality traits, possibly through the use of teacher professional learning observation and feedback assessments, is also necessary, especially when deal with teachers with low motivation. Knowing teachers' personalities can help headmasters or support team incorporate appropriate strategies into the existing curricula to enhance their learning experience.

Limitation

This study was conducted with only teachers who teach in secondary school under OBEC and those schools also run English Program. As such, the factors that affect secondary school under OBEC Teachers' participation in teacher professional learning activities might differ from those that affect other kinds of school teachers' teacher professional learning activities. Therefore, the results of this study are limited to perceptions of teachers of secondary schools under OBEC which run English Program.

Future Research

There are several important findings that can be contributed to the future research.

First, investigating factors that could contribute to teachers' burnout such as education level, job classification, teaching experience, overall teaching load, class size, or academic training for teacher professional learning is need to be investigated in the future research. For example, loss of personal accomplishment revealed negative to personal factor which is opposite direction to others variables. Through a comprehensive cataloging, validating and grouping of factors that lead to loss of accomplishment specific to teacher professional learning, recommendations for both theory and practice might result from these types of research endeavors.

In the lens of global beliefs, future research is also needed to identify specific support characteristics that define an organization that values or fails to value teacher professional learning function and its relationships to burnout. Specifically, perceived organizational support is characterized as "global beliefs". These beliefs are influenced by the frequency, extremity, and judged sincerity of praise and approval, as well as other rewards such as pay, rank, and job enrichment opportunities. Thus, future research may provide additional evidence supporting the relationship between teachers' perception in support and teachers' participation in teacher professional learning as being valued. It is also needed to study about facilities that structure professional development to meet the three foundation needs (Autonomy, Competence, and Relatedness) which will increase internalized teacher motivation in professional development participation.

Next, future research may need to investigate religious principals such as the Buddha's teachings about will power (both external and internal factor) that could contribute accomplishment in life; work, education, relationship, and self-development. The Buddha's teachings about will power is similar to Self-determination Theory conceptually. It's one of an eastern wisdom and belief. It talks about inner peace arising from meditation that creates self-inspiration. Self-inspiration,

as mentioned, may encourage teachers to do or participate teacher professional learning activities by their self-direct. Moreover, crossing cultural studies should be conducted both in different cities and across Thailand in order to better generalize the results of the study.

As the present study inspects only three factors and motivation as potential antecedents to teachers' teacher professional learning. According to SDT based research, other characteristics of motivation, such as Amotivation, or intrinsic motivation that are included in the performance measurement systems and the nature of the feedback that teachers receive about their performance, may also have significant effect on work motivation. It should be conducted using qualitative or mixed method approaches in order to better understand the extent to which these factors affect teachers' participation in teacher professional learning. Additionally, these methods speak to the veracity of participant responses by allowing for triangulation of data collection.

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