Voluntary Professional Development in Thailand: Teachers’ Motivation, Professional Life Phase, and Contingencies of Self-Worth

Pongwat Fongkanta

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VOLUNTARY PROFESSIONAL DEVELOPMENT IN THAILAND:
TEACHERS’ MOTIVATION, PROFESSIONAL LIFE PHASE, AND
CONTINGENCIES OF SELF-WORTH

by

Pongwat Fongkanta

A Dissertation
Submitted to the Graduate School,
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and the School of Education
at The University of Southern Mississippi
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for the Degree of Doctor of Philosophy

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December 2018
ABSTRACT

VOLUNTARY PROFESSIONAL DEVELOPMENT IN THAILAND: 
TEACHERS’ MOTIVATION, PROFESSIONAL LIFE PHASE, AND 
CONTINGENCIES OF SELF-WORTH 

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December 2018 

To address the increasing focus on teacher proficiency, professional development opportunities for teachers are routinely provided in Thailand. The focus of this work is on professional development at the individual level and addresses teachers’ motivation for self-improvement and their own worth. Specifically, the purpose of this study was to first validate the relative importance of teachers’ motivation for participating in voluntary professional development and contingencies of self-worth. Secondly, the study sought to determine the relationship of the indicators that contribute to teacher participation with contingencies of self-worth. Lastly, this study examined in what way professional life phase may be related to the indicators of importance for participating in voluntary professional development and contingencies of self-worth. 

A total of 623 participants were teachers in public schools in Thailand who participated in a professional development program. Data were collected using the Thai version of the Contingencies of Self-Worth scale and Reason for Professional Development Participation scale. To answer the research questions, structural equation modeling was conducted. The analyses resulted in a significant model that explained the indicators of motivation for participating in voluntary professional development and contingencies of self-worth and was reasonably robust. The relationship of contingencies
of self-worth and motivation for participating in voluntary professional development was statistically significant, demonstrating a moderate correlation coefficient between the two variables. Also, the structural equation model invariance result revealed that the effect of contingencies of self-worth on the motivation for participating in voluntary professional development was not statistically significant across three groups of professional life phases. The effect size of the prediction indicated that effect size in the early career group was stronger than in mid-career group and late career group, and the effect size in late career group was stronger than mid-career group.
ACKNOWLEDGMENTS

As the long journey approaches the accomplishment of my doctoral studies and the completion of this dissertation, I have a huge amount of gratitude for the important people that have walked along this journey with me.

I would like to acknowledge and thank to my committee members, Dr. Thomas Lipscomb for all his help, support, and encouragement until defense, Dr. Thomas O’Brien for his feedback and suggestion in each step of the process, and Dr. Mohn for his huge support and intellectual guidance during the data analysis phase. Lastly, but most importantly, I would like to give a special acknowledgement and thank to my dissertation chairs and professional advisor, Dr. Kyna Shelley, for intellectual guidance, encouragement, and understanding and patience with me through the dissertation process.

I would also like to thank my colleagues and friends. I have had the great opportunity to work with Dr. Peter Paprzycki, director of the Research Support Center, who has expert knowledge in statistics. I also owe gratitude to his amazing colleagues in the Research Support Center. I would like to thank the Thai community in Hattiesburg for their friendship and support. I would also like to thank Lampang Rajabhat University for their allowance and support for me to pursue this degree at Southern Miss.

Last but not least, I would like to recognize my family. I received a ton of support and their unconditional love. Without my family, I would not be where I am today!
DEDICATION

To my Father “Wichian” and Mother “Somprao”

To my older Sister “Wilaiporn” and “Siriphun”
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<tr>
<td>NEA</td>
<td>National Education Association</td>
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<td>NSDC</td>
<td>National Staff Development Council</td>
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<td>SASS</td>
<td>Schools and Staffing Survey</td>
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<td>TPDI</td>
<td>Teacher Professional Development Institute</td>
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CHAPTER I - INTRODUCTION

Introduction

The challenges of a rapidly changing world are embedded in numerous dimensions of society including the education system. There is national pressure on the educational institution to look for a route to develop adults’ professional competence. Educators in Thailand have sought a way to integrate a transformative shift toward developing the knowledge of workers through the education system under the Thailand 4.0 economic model (Department of International Economic Affairs Ministry of Foreign Affair, 2016). After this model was published, the Teacher Professional Development Institute (TPDI) in Thailand adopted this new direction of supporting professional training for educational personnel, especially teachers in school.

Professional development is defined as a cumulative process that improves teachers in the mastery of knowledge, skills, and competencies which are the results of the interaction between personal professional growth and environment (Miller & Carpenter, 1980). Scholars have debated the significance of professional development related to its value in the education system (Mizell, 2010; National Staff Development Council, 2001). Also, numerous researchers have discussed the significance of professional development (Mizell, 2010; Jacob, Xiong, & Ye, 2015; Hunzicker, 2011). The inclusion of teacher professional development represents a sustained effort to enhance teacher competencies (Kunter, Klusmann, Baumert, Richter, Voss & Hachfeld, 2013) as well as career progression and retention in the profession (Coldwell, 2017). These researchers have discussed the several facets of professional development, how it fostered teacher learning, and how it is expected to alter teaching practice.
Professional development programs can be highly useful and provide opportunities for teacher to engage in sustaining or implementing new knowledge (Anderson, 2008; Kennedy, 2005). There are both mandatory and voluntary professional programs development under the general heading of professional development. Teachers have been shown to be likely to voluntarily attend professional development outside of the workplace in order to seek ways to implement their competencies such as pedagogical content knowledge (Kennedy, 2005). However, teachers are usually mandated to participate in professional development and engagement may become an issue.

According to Ross, Barr, and Stevens (2013) mandatory continuing professional development is not enough to achieve the aims of the program because of teacher lack of engagement. Mandatory participation also reduced the motivation to learn (Kennedy, 2016). On the other hand, teacher engagement is enhanced when teachers attend voluntarily, attending the program based on desire or their own motivation (Kwakman, 2003).

In Thailand, local educational institutions or organizations such as universities are taking a role as a resource for professional development training that is called the teacher development unit (TPDI, 2017). Lampang Rajabhat University, where a teacher development unit is located, was mandated to provide a professional development program under the umbrella of the multidimensional teacher professional development program. Courses are provided for teachers in three domains; knowledge, skill, and attitude. The knowledge domain covers content knowledge and pedagogy, the skills domain contains topics such as classroom and learning management. The attitude domain includes areas concerning teaching commitment and professional ethnics (TPDI, 2017).
Teacher professional development needs have changed and grown in currently. An international study produced the Teaching and Learning International Survey (TALIS) that is used with teachers in teaching and learning environments. This survey addresses teachers’ development and includes their needs as well as barriers to becoming more professional and more effective in teaching (OECD, 2013). In Thailand, the greatest needs for professional development of teachers are in the area of profession responsibility and classroom environment (Hengsomboon, 2008). The most recent survey by TPDI provided additional valuable insight into the teachers’ needs finding that instructional technology and classroom activities knowledge and skills are selected most often by teachers (TPDI, 2017).

The characteristics necessary to be a successful learner vary widely. Individuals different characteristics such as skills and personality characteristics are related to their one own unique way of learning (Clardy, 2000). Motivation can be considered as one of these characteristics for which people have different preferences or perceived value. Because of this, motivation is one key independent factor that influence their behavior (Eccles, 2005; Wigfield & Eccles, 2000). Motivation may arise from personal importance, value or intrinsic interest in doing a task (Eccles, 2005; Wigfield & Eccles, 2000). According to McClelland’s Theory of Needs (1985), motivation is “a recurrent concern for a goal state or condition as measured in fantasy which drives directs and selects the behavior of the individual” (p. 590). Therefore, the three basic needs proposed by McClelland are the desire to consistently strive to do the task better or become more efficient and includes the need for achievement. High achievers discerned themselves from others by their desire to do tasks better than others. The need for power is the desire
to influence others or maintain some level of power over others. The high need of power person often exerts influence over others and is likely to be more concerned with reputation. The need for affiliation is the desire to maintain positive relationships with other. People needing affiliation often demonstrate the needs for friendship with a high desire to involve people to reach a mutual understanding. These needs prompt teachers to perform certain actions to achieve the desired goal (Tella, Ayeni, & Popoola, 2007). In the education field, McKeachie (1997) learned that teachers feel more satisfied and happy with what they do and learn when they have an opportunity to learn new skills and knowledge, when they can show helpfulness, and have a sense of being appreciated by colleague and administrator.

Grundy and Robison (2004) explored teachers’ personal desire and motivation to sustain and enhance their professional lives for a variety of reasons both intrinsic and extrinsic factors. Many scholars have proposed a particular benefit when the reasons for professional learning comes from a teachers’ decision to pursue continuing education in a professional development program and propose this as courage to teach more effectively (Durksen, Klassen, & Daniels, 2017; Lackey, 2011; Herbers, Antelo, Etting, and Buck, 2011), promoting self-knowledge, and reflection practice (Hew, 2009; Miller, 2006), building a learning community (Durksen et al., 2017; Eib & Miller, 2006), sharing resources (Lackey, 2011), and peer support/mentoring (Durksen et al., 2017; Eib & Miller, 2006). Moreover, teachers enhance their own teaching through self-development or learning on their own (Wachiratadakul, 2010).

Enhancing adult motivation to learn connects with an individual’s continuing learning in life (Wlodkowski, 2010). Lifelong learning is a concept that explains
engaging in professional development. According to Erdamar (2011) and Sişman (2012), lifelong learning describes a continuous accumulation of information for the purpose of gaining new knowledge and skills, generating innovation, and being aware of a new thing happening.

Self-worth theory assumes that the highest human priority is the search for self-acceptance (Covington, 1984) and that “one’s worth often comes to depend on the ability to achieve competitively” (Covington, 1998 cited in Weibell, 2011). Self-worth is considered an influence of controlled motivation (Deci & Ryan, 1995); contingencies of self-worth are essential sources of motivation (Crocker & Knight, 2005). Covington (1984) proposed that the self-worth model is comprised of multiple factors that influence one’s sense of self-worth. The effort yields a double benefit for sense of worth as “a double-edged sword” that is directed to one’s sense of self-worth (Convington, 1984).

The Contingencies of Self-Worth Scale (CSWS; Crocker, Luhtanen, Cooper, & Bouvrette, 2003) are frequently used to measure important internal and external sources of self-esteem and is comprised of subscales assessing common sources of self-esteem. People who are high in self-esteem may invest less effort in performing difficult tasks and they may try harder to protect self-worth because they do not adapt well to failure. When an individual with contingent self-worth have learning orientations, the ego-involved in success and failure remain (Niiya & Crocker, 2008). This relates to the incremental theory in that scholars are concerned about individual self-worth and self-handicap to protect self-esteem from the ego-threat connected with failure (Niiya, Brook, & Crocker, 2010).
Professional life phase may be a significant consideration when examining teachers’ professional learning and the factors that motivate them to participate. Day and Gu (2009) found that for the majority of teachers, the mid-career phase (teaching experience 8-23 years) often reflects an increase in motivation and commitment to professional learning while the later professional phase (teaching experience greater than 24 years), teachers report diminishing motivation. Richter, Kunter, Klusmann, Lüdtke, and Baumert (2011) confirmed that the mid-career teachers (7-30 years of experience) are the ones who most frequently engage in-service training activities and that this teacher engagement diminishes with increased teaching experience. Specifically, teachers’ motivation during mid-career may be that professional learning offers them time and space to think and reflect and this may be more important than at other professional life phases. In contrast, early-career teachers (0-6 years of experience) reported higher rating for the importance of professional learning in providing opportunities for building community, increasing effective teaching, learning about children and themselves (as teachers), gaining subject knowledge, and benefiting from the influence of a mentor (Durksen et al., 2017). Both studies support the notion of there being three phases of one’s professional life. In summary, it may be critical to understand that the professional life phase/career stage is likely related to teachers’ participation in professional development.

Statement of the Problem

Teacher professional development is one of the keys in improving teacher competencies (Kunter, Klusmann, Baumert, Richter, Voss, & Hachfeld, 2013). Professional development is provided by several educational institutions and is comprised

Despite a significant number of studies on the effectiveness of teacher professional development on teacher competence, most studies look at programs where teacher participation is mandatory as opposed to voluntary program. There is also a substantial gap in understanding how the individual/personal factors of professional life phase may play a role in the motivation for participating. The studies regarding professional development that focus on individual differences disregard the reality that individuals’ professional development preference changes over time. Also, many studies about professional development do not address the teacher’s motivation to participate in training within each of the three different professional life phase nor does the research include seeking information about the relationship of participation and professional life phase in combination with their contingencies of self-worth.

Statement of the Purpose

This project has three main purposes. First, it attempts to validate the indicators that contribute to teachers’ motivation for participating in voluntary professional development as well as the relative importance of those indicators. Second, it attempts to determine the role that contingencies of self-worth may play in which indicators—and the importance of these indicators —contribute to their participation. Finally, this study examined in what way professional life phase may be related to indicators’ importance for participating in voluntary professional development and contingencies of self-worth.
Justification

The discovery of the specific indicators that influence teacher motivation might be useful, first, for schools. Teachers may gain insights about themselves and other colleagues regarding what indicators might influence their desire to attend professional development. Secondly, validating these indicators may help administrators implement and support those elements that contribute to teachers’ motivation for professional development. Further, this awareness may allow schools to offer continuing education opportunities through professional development that are most likely to further develop teachers’ performance. Another consideration is the possibility of administrators moving away from incentivizing, reinforcing, or offering rewards for attendance at professional development but instead move toward more voluntary participation in which teachers make decisions to develop their own competencies without being mandated to do so.

Furthermore, exploring what motivates teachers to volunteer for professional development may benefit policy makers in the education system. In proposing policy, if the educational institute has an awareness of teachers’ motivation and understands the benefits as identified by the teachers themselves, they are more likely to incorporate activities that provide optimal benefit to teachers and to the educational system. Therefore, the program developers in an educational institute headquarters or in a development unit may consider the long-term value of the program or type of courses that may be connected to the teachers’ contingencies of self-worth. Together, these factors may lead to more valuable.
Research Questions

1. What is the relative importance of the indicators of motivation for participating in voluntary professional development?

2. What is the relative importance of the indicators of contingencies self-worth?

3. Are the indicators of motivation for participating in voluntary professional development related to contingencies of self-worth?

4. Is the relationship between motivation indicators for participating in voluntary professional development and contingencies of self-worth moderated by professional life phase?

Delimitations

The participants are primary and secondary teachers from public schools who participate in professional development at the Lampang Rajabhat university training unit in Thailand. Therefore, it may not be possible to generalize the findings to teachers in private schools. Neither will it be appropriate to generalize to professional development in other training units.

Conceptual Framework

This study of the interplay among motivation, self-worth, and professional life phase were informed by a framework including theories about motivation, self-worth and professional life phase.

People are naturally motivated to fulfill specific needs. McClelland’s needs theory (1985) suggested that were specific three needs. First, the need for achievement is the desire to hardly attempt to do for specifically achieving the efficiency outcome. Second, the need for power is the desire to influence others or maintain some level of power over
others. Third, the need for affiliation is the desire to develop and maintain strong positive relationships with other people. There are informing different needs to motivate reaching the attainment in particular goal setting. Often motivation is depicted widely attribution, but it was rarely specifically in these three attributes.

Self-worth theory proposes that seeking self-acceptance is a human priority (Covington, 1984). Self-worth is a quality of being able to believe in ourselves (Bogee, 1998). Self-worth is frequently described as a favorable estimate or an opinion of one’s self, contingent on one or more domains of one’s identity. Specifically, contingencies of self-worth are the domains or categories in which people invest their self-esteem, so that individual’s view of their worth depend on perceived successes or failures that commitment to self-standard in each domain (Crocker & Wolfe, 2001). Contingencies of self-worth are measured across seven domains: family support, competition, physical appearance, God’s love, academic competence, being a virtuous or moral person, approval from others by the Contingencies of Self-Worth scale.

Huberman (1989) proposed a model of teacher development which suggest that the professional lives of teachers consists of five consecutive phases; survival and discovery, stabilization, experimentation/diversification and stock-taking/interrogation, serenity, and disengagement that can be closely linked to individual teaching experience. Richter et al., (2011) proposed that there were three stages that span a teacher professional life and across which motivation varies. Richter et al., (2011) based these three professional stages on the Huberman’s (1989) career stages model together with empirical data from the SASS (1999-2000). First is the beginning of the career (0-6 years of experience), next is middle of the career (7-30 years of experience), and finally, the
end of the career (greater than 30 years of experience). Similarly, Day and Gu (2009)
divided the professional life phase into three phases: early career (teaching experience 0-
7 years), mid-career teacher (teaching experience 8-23 years), and later professional
teacher life phase (teaching experience greater than 24 years). While the career stages
were built on the Huberman model the particular career stages used by Day and Gu
suggested different intervals of experience. In this study, the three phases were used to
identify the professional life phase as early career (teaching experience less than 8 years),
mid-career (teaching experience 8-23 years), and late career (teaching experience greater
than 23 years).

Definition of Terms

The following definition of the key term will be provided as reference for this study:

*Contingencies of self-worth*: a person’s view of his or her worth, defined as
personal beliefs about what one has to be, and one’s own self-esteem, which can
influence one’s motivation, behavior, cognitions, and failures or adherence to

*Professional life phase*: the stage of career in one’s profession that is identified by
year of teaching in the profession (Day & Gu, 2009).

*Motivation to participate*: purposeful engagement which takes learning seriously
and try to get maximum benefits (McMillan & Forsyth, 1991), by measuring the
importance of reason to participate the training.

*Professional development*: the process and activities create to develop the
teachers’ professional knowledge, skills, and attitudes that are essential to
professional thinking, planning and practicing throughout each stage of their
teaching life that mediate the effects of interventions on student achievement (Day, 1999; Guskey, 2000).
CHAPTER II - REVIEW OF THE LITERATURE

The purpose of this study was to validate the indicators that contribute to teacher’s motivation for participating in voluntary professional development and sought to determine the role that contingencies of self-worth may play in which indicators contribute to their participation, and also examined in what way the professional life phase may be related to indicators of importance for participating in voluntary professional development and contingencies of self-worth. The teachers’ motivation, professional life phase, and contingencies of self-worth were used in this study. In this chapter, each of these variables were explored through the definition and the theoretical foundation including the empirical findings. It starts by providing definitions of the concepts of professional development of teachers including the professional activities and the alternative way that teachers learn to grow in their profession. It also briefly discusses the type of professional development that encourage teacher professional development. Next, it reviews the literature on the motivation for participation and also motivation for participation in different professional life phase. Finally, it describes the contingencies of self-worth definitions in which the difference of seven domains in contingencies of self-worth, and highlights the importance of the value of contingencies of self-worth related to teacher development in the profession.

Teacher Professional Development

National Staff Development Council (NSDC, 2011) proposed the definition of professional development on the proposal amendment of Elementary and Secondary Education Act, Title IX, Section 9101(34) as “The Term ‘professional development’ means a comprehensive, sustained, and intensive approach to improving teachers’ and
principals’ effectiveness in raising student achievement.” This includes the specific sustained approach that professional development fosters a collective responsibility for ongoing improvement in teaching and student learning (NSDC, 2011). The Organization for Economic Co-operation and Development (OECD) adopts a broad definition of teacher professional development; “Professional development is defined as activities that develop an individual’s skills, knowledge, expertise and other characteristics as a teacher” (2009, p. 49). They proposed the same concept on professional development focusing on the improving teacher effectiveness.

The definition of “professional development” has been defined and changed over the decade. The definition appeared particular in several fields such as industry/business (develop the employee or staff), and education (develop the teacher). The scope of professional development is wide that propose in a different perspective. To frame the professional development definition in the education field, the researcher follows up with an innovative definition focusing on teacher professional development. In the late 1990s, the concept of professional development was broadly covered the career status development and teacher competence. Hassel (1999) referred to professional development as the process of improving teachers’ skills and competencies throughout educational system outcomes. Day (1999) considered teacher professional development to be the process by which teachers, alone or in groups, develop knowledge, competencies and emotional intelligence that was essential elements for improving professional thinking, planning and practicing throughout each stage of their teaching life. By the early 2000s, the teacher professional development definition was expanded to various aspects related to the professional practice of teachers and specifically teachers’
teaching including students’ learning. Guskey (2000) considered professional
development as “the activities designed to enhance the professional knowledge, skills,
and attitudes of educator so that they might, in turn, improve the learning of student” (p. 16).
Knight (2005) proposed the professional development as a term was used to describe
the specific teaching and learning activities related to educating and planning for teachers
to improve competency and technical levels. Villegas-reimers (2003) noted that
professional development of teachers was the professional growth that teachers acquire as
a result of their experience and systematic analysis of their own practice.

More recently, although scholars derived a slight difference in several ways, the
idea behind the definitions are not new. It also maintains an idea of improving teacher
being professional and regarding student learning outcome. Richter, Kunter, Klusmann,
Lüdtke, and Baumert (2011) defined teacher professional development as “uptake of
formal and informal learning opportunities that deepen and extend teachers’ professional
competence, including knowledge, beliefs, motivation, and self-regulatory skill” (p. 116).
Minor, Desimone, Caines Lee, and Hochberg (2016) proposed professional development
as activities or series of interactions intended to increase individuals’ knowledge and
skills, improving their practice, and contribute to their professional growth. Also,
Coldwell (2017) defined specifically teacher professional development as “formal and
informal support and activities that are designed to help teachers develop as
professionals” (p. 189). The all definitions previously presented aspects fit nicely with the
NSDC defined, the concept of professional development. These were all related to the
professional practice of teachers and teaching, and also related to ongoing improvement
in student learning.
To overview the system of professional development, the requirement perspective in the professional development system were promoted differently. The system of professional development was the specific approaches and opportunities which offered professional development to teacher from the beginning. Villegas-Reimers (2003) proposed features of the system of professional development that should include the linkage between the following components:

- Goals and purpose of professional development
- Context of professional development be taking place
- Professional characteristics of teachers who are in the system
- Model, techniques, and procedures will be performed
- Cost and benefit of professional development
- Evaluators who assess teacher performance and how is performance conducted
- Process of the effective professional development evaluation
- Determination of infrastructure support for professional development
- Incentive and rewards for dedicating the time and energy on professional development (Ingvarson, 1998).

Why is teacher participation in professional development important? This is a common question raising among teachers and others. Commonly, professional development in one of many types of educational experiences related to a teachers’ work. People in a wide variety of professions have the same purpose for participating in professional development to learn and apply the new knowledge and skill for improving their performance. Educational researchers have shown the significance of professional
development in increasing teacher competence, school leadership, and student achievement. Both teachers and schools are continually expanding their knowledge and skills to enhance the best educational practices (Mizell, 2010). Teachers have options to participate in many types of professional learning opportunities either formal or informal (Wei, Darling-Hammond, Andree, Richardson, & Orphanos, 2009).

Guskey (2002) discussed the improvement of the professional development and sustained educational improvement by which the model of teacher changes is depicted by a sequence of events. The model is premised on the idea that change is primarily an experientially based learning process. Guskey also concluded that the major goals for the professional development program are comprised altering teachers’ classroom projects, altering teachers’ attitudes and beliefs, and improving students’ academic outcomes.

Furthermore, several researchers have investigated the impact of professional development on teachers’ proficiency. In many successful professional development programs, there were noticeable impacts on teachers’ learning and teaching practice both in and out of the classroom as well as student outcome (Darling-Hammond, 2000; Desimone, 2011). The research suggests that professional development has an impact on teacher learning and teaching practice. Its intention to promote teacher learning and application of instructional expertise (Aderson, Feldman, & Minstrell, 2014). Desimone, Porter, Garet, Yoon, and Birman (2002) supports the argument that specific instructional practices learned in professional development program increased teacher’s use of those practices in the classroom. In short, they asserted that the high-quality professional development led teachers to change in teaching. Similarly, Erickson, Minnes Brandes, Mitchell, and Mitchell (2005) discussed the long-term success of collaboration with
partners. The partnership focused on the teaching and learning practices in secondary school classrooms. These programs improved the learning environment in classrooms for both students and teachers and provided valid knowledge about learning and teaching issues in classroom settings as well as established the models of professional development for school and teacher educators.

Coldwell (2017) conducted research on the influence of professional development on science teachers’ careers and retention in England. He found that professional development can influence teacher retention and a teacher’s professional career. Coldwell looked at three phases of teacher professional development. At the intermediate and final phases, he found that professional development had positive impact on career satisfaction. Also, he found that teacher’s engagement in professional development impacted their on professional knowledge and improved their practice.

Studies in education field that focus on the relationship or impact on professional development covering broad range of student outcomes, teacher learning, and teaching practice are more common. For example, of Wayne, Yoon, Zhu, Cronen, and Garet (2008) conducted the experimental studies on the impact of professional development on teacher knowledge, practice outcome, and student outcomes. Buczynski and Hansen (2010) investigated the impact on elementary school student’s science achievement and teachers’ practice ongoing professional development. They made us of the Inquiry Learning Partnership (ILP) as the intervention in the elementary classroom. In the design teachers partnered other teachers outside their district. They found that teachers increased their science content knowledge after they engaged in professional development and the positive impact on student learning and achievement in math and science. The results also
demonstrated that a teacher’s knowledgeable of subject matter influenced students’ achievement.

Similarly, Antoniou and Kyriakides (2013) investigated the relationship between the improvement of complex teaching skills and student achievement in mathematics. Student achievement and teachers’ quality of teaching were measured at the beginning, at the end of the intervention, and in follow-ups one year later after implementation. As part of the study, teachers participated in the Dynamic Integrated Approach (DIA) or the Holistic Approach (HA) to teacher professional development. The DIA focus on the encouraging teacher reflection and critical thinking in teacher learning and performance include teaching skills of dynamic model which correspond to teacher development stage and needs while the HA focus only the encouraging teacher reflection and critical thinking. The teaching skills of dynamic model included five development stage of teaching skills. It used to identify the teachers’ teaching skills that the first three stage are mainly related with the direct and active teaching approach. Stage 1 is a basic element of direct teaching require the teaching skill in, for example, management of time and frequency of assessment. Stage 2 is putting aspects of quality in direct teaching and touching on active teaching require the teaching skill in, for example, quality application and provide application task while stage 3 identify more advance requirement in use of the skills such as asking process and product questions, providing appropriate feedback. These skills gradually move from the use of teacher center approach to the active involvement of students in teaching and learning. The last two stages are more demanding since teachers are expected to differentiate their instruction as stage 4 and demonstrate their ability to use the new teaching approach by engaging students to
orientation and modelling tasks as stage 5. The researchers found that teachers employing the DIA revealed the significant improvements in teaching skills while did not show the significant improvement in teachers who participated HA program. Student achievement in mathematics show the different scores in different teacher’s teaching skills stages. Students of teachers at stage 1 had the lowest achievement gain while students of teachers at stage 4 had the highest achievement gain, and students of teachers at stages 1 and 2 had math scores lower than those of teachers at stage 3.

Effective Professional Development

The concept of effective professional development regarding factors of effecting may help to comprehensively understand teacher success. Jaquith, Mindich, Wei, and Darling-Hammond (2010) defined the effective professional development as a process that leads to improve student outcomes. Also, Darling-Hammond et al. (2017) proposed that effective professional development is “structured professional learning that results in changes to teacher knowledge and practices, and improvements in student learning outcomes” (p. 2).

In the past decade, researchers began to study the effectiveness of professional development empirically. They categorized the elements of professional development programs. Programs, they argued, should: (1) concentrate on classroom teaching and pedagogy that emphasizes high learning standards (Cohen & Hill, 2001; Garet, Porter, Desimone, Birman, & Yoon, 2001; Knapp 2003; Sparks & Hirsh, 1999), focus on evidence of students’ learning to standard (Knapp 2003), (2) focus on building teachers’ content knowledge (Cohen & Hill, 2001; Garet et al., 2001; Knapp 2003), and (3) model instructional practices (e.g. active learning) both in classrooms and adult learning
situations (Garet et al., 2001; Knapp 2003). Also, few studies identified collaborative learning an element of effective professional development (Cohen & Hill, 2001; Knapp, 2003).

More recently, numerous researchers aimed to assess the effectiveness of professional development. The researchers derived assessments from several empirical studies. Hunzicker (2011) developed a checklist for keeping the quality of a program high and up to date. The elements on the checklist were supportive, job-embedded, instructionally focused, collaborative, and ongoing. Also, several researchers considered other elements of effective professional development. The following summarizes seven elements of effective professional development:


2. Incorporates active learning— engage teacher directly in designed teaching strategies such as interactive activities (Darling-Hammond et al., 2017; Kutaka et al., 2017; Kleickmann et al., 2016; Shaha & Ellsworth, 2013; Stewart, 2013). This element refer to an attempt to develop a set of skill with the perspective on the most effective teaching strategies.

3. Collaboration— creates a space for teacher to share ideas and collaborate in their learning as a community (Darling-Hammond et al., 2017; Kutaka et al., 2017; Kleickmann et al., 2016; Shaha & Ellsworth, 2013).
4. Uses the model of effective practice—provides the clear vision of what the best practice in curricular (Darling-Hammond et al., 2017; Kutaka et al., 2017; Kleickmann et al., 2016; Shaha & Ellsworth, 2013).

5. Provide coaching and expert support—this element can support the effective implementation of new curricula, tools, approaches, and any evidence-based practices by experts educators (Darling-Hammond et al., 2017; Kleickmann et al., 2016; Shaha & Ellsworth, 2013).

6. Offer feedback (Darling-Hammond et al., 2017; Kutaka et al., 2017; Kleickmann et al., 2016) and reflection (Darling-Hammond et al., 2017; Kleickmann et al., 2016); (Shaha & Ellsworth, 2013)—these are working together to help teachers move thoughtfully toward the expert vision of practice that are powerful tools in the effective professional development.

7. Provide sustained duration to learn, practice, implement, and reflect (Darling-Hammond et al., 2017; Kutaka et al., 2017; Kleickmann et al., 2016; Stewart, 2013)—as professional development is sustained, it may lead to many more hours of learning that is indicated by seat time alone (Darling-Hammond, Hyler, & Gardner 2017).

Effective professional development that engages teachers in learning activities and tend to improve a teacher’s practice. However, the challenges of implementing effective professional development will need to go beyond regarding individual level on teacher proficiency. The challenges are also at the system-level which includes the school and classroom. Tooley and Connally (2016) identified areas of obstacles to effective professional development at the school level.
• Failure to identifying professional development needs— school lack of a clear and shared vision around what excellent teaching entail and teacher professional development are often determined regardless of what teachers need.

• Failure to choose approaches most likely to be an effective— prepackaged and pre-schedules format with content that is “one-size-fits-all” in restrict time that often provided in professional development. It is unlikely to be relevant to all teachers needs and help the teacher realize the strategies and knowledge in their specific grade or content area. Be choosing on evidence-based approaches and district recertification policies typically encourage provide the professional model models by teachers’ need around seat time as assessing the potential engagement with professional development.

• Failure to implement approaches with quality and fidelity— one obviously implementing obstacles occurred when program include coaching for teachers. It is not enough in assigned coaches and has them available for teachers, lack of an integrated, coherent approach to instruction and insufficient capacity.

• Failure to assess professional development outcomes— few schools provided the adequate evaluation for follow up the professional development performance. Without the effective evaluated system, the professional development program is hard to accomplish the professional development goal.
Professional development program characteristics have been widely explained by researchers. They generally classify program characteristics. Some researchers focus on the program content. Lindvalla, Helenius, and Wiberg (2018), for example, compared the large-scale professional development programs focusing on the core content of the program. Buczynski and Hansen (2009) examined the outcome of programs focusing on subject matter and science content knowledge. Kennedy (1998) identified four substantial elements that consist of generic teaching practices, subject-specific teaching practices, curriculum and pedagogy, and how students learn in the program. Moreover, many researchers who investigated the studies focusing on the program content suggest that the content delivered through professional development should be based on the specific knowledge and skills that educators feel will enhance their practice (Minor et al., 2016; Gibson & Brooks, 2012; Sample McMeeking, Orsi, & Cobb, 2012; Garet et al., 2001).

Other researchers focus on program design. Blank and Alas (2009) look at four components of program design: follow-up steps in teachers’ schools, collective participation, active learning methods, and substantive attention to how students learn specific. All of these components, they concluded, should be included in an effective program. Also, the professional development programs are best designed by combining the content and process in the program. Garet, Porter, Desimone, Birman, and Yoon (2001) categorized three core features: content knowledge in mathematics and science, opportunities for active learning, and coherence with other learning activities.

Continuing Professional Development

Professional development should be a continuous process. Learning experiences are conceptualized as ongoing and improvements in practice are expected to be
cumulative (Evan, 2002; Ruddy & Prusinski, 2012). When professional development is planned as an ongoing process in any setting, teachers are provided with multiple opportunities for improving.

Continuing professional development (CPD) can no longer be seen as a teacher leaving their building to attend the short workshop or a graduate course. The CPD include giving teachers continuous opportunities for learning. Teachers can be reflected on their practice, solve problems of practice collaboratively, discuss with colleagues as a community, develop a school culture that supports collaborative action and individual development, provides other teachers with coaching and feedback. The CPD should be ongoing for the length of their career (Darling-Hammond & McLaughlin, 1995; Darling-Hammond, 2000). These are processes of learning which occurs throughout life as lifelong learning.

To retain knowledge and keep their understandings of pedagogy and content up to date, teachers should be continuous learners throughout the entire span of their professional careers. The research on characteristics of lifelong learners is various and broad, one especially focuses on a professional field such as education (Anderson et al., 2016; Webster-Wright, 2009; Eleonora, 2003). Candy, Crebert, and O’Leary (1994) developed a profile for lifelong learners in higher education. Lifelong learners should have a curious mind with a motivation for learning in which follow their own learning. They are information literate people who seek information from different sources, learns information profoundly in which it can be evaluated and used. They also have a positive attitude towards learning and organizational skills. Moreover, Collins (2009) found that lifelong learners perform at high level, are self-directed in learning skills and seeking
information. They also have metacognitive skills, and able to develop and use defensible criteria for evaluating learning as well as able to share best practice and knowledge.

Alternative Approach Teacher Learning on Professional Development

Professional development can go in many different ways. Online professional development became more popular recently. Online professional development can be a good choice with many benefits for teachers, but sometimes traditional in-person professional development may be preferred. Traditional in-person professional development can have many forms such as workshops, visits by scholars, conferencing as well as the professional learning communities (Wei et al., 2009). These are offered onsite at the workplace or off-site which locally, nationally or internationally (Wei et al., 2009).

The National Education Association (NEA) also offers conferences and a variety of publications. Conferences are designed to meet participants’ needs. For example, teachers working for the opportunities to develop themselves to raise the careers of education and professional growth can find them at through the NEA. The NEA provides tools for teachers. The tools can build skills specific to teaching careers, build strong internal and external relationships, build stronger locals, organize members, and enhance member’s ability to positively influence student achievement (National Education Association, n.d.).

The professional learning community (PLC) is an in-person professional development program must frequently use in the school. The PLC is used to improve teaching practice, student achievement, educators’ competence, and values. Vescio, Ross, and Adams (2008) studied the characteristics of professional learning communities. The result showed that the characteristics of professional learning communities can be
broadly organized into four categories. These includes the collaboration, a focus on student learning, teacher authority, and continuous learning. When a well-developed professional learning community was in school it had a positive impact on both teaching practice and student outcome. However, different school contexts may encounter different practical obstacles to achieve a positive impact on teaching practice. Likewise, Wang, Wang, Li, and Li (2017) found different results on the actual functioning of Teaching and Research Groups (TRGs), professional learning community, between rural and urban schools in terms of intensity, rigor, and quality. Urban teachers was found to have strong professional networks that advanced on professional competence at both individual and school levels, while rural teachers did not. The rural school isolated teachers and static knowledge remain static.

However, the tensions and barriers for teacher to engage in professional development are widespread. Broad (2015) examined teacher’s perception of the barriers to engage the professional development. Teachers who had completed their teaching qualification in five years which had engaged professional development were interviewed. The result showed that the significant barrier of professional development engagement was linked to barriers of work within an impoverished actor network, workload, and time constraints. The impoverished networks restricted teacher’s opportunity to produce connection with the same area of subject-specialist teachers, leaving teachers to develop the subject and occupational expertise in isolation. According to Stone-johnson (2016), the intensification of teachers’ work and alienation led teachers to work in isolation. However, raising teachers’ collaborative development instead of isolation can diminish this barrier (Zhao, 2013). An overview of the barrier of
professional learning community development, Lonnquist and King (1993) argued that barriers to developing a professional community occurred around the contextual, leadership, and structural factors. These include lack of district support, lack of open communication of the school vision, and teacher-leadership structure that did not empower all teachers. Additionally, the limited resources, time constraints, and classroom management issues contributed teachers’ barrier to implementing professional development (Buczynski & Hansen, 2010).

Another alternative way to engage in professional development is through an online activity. Online professional development continues to grow in popularity. With the increasing expansion of online learning resources, professional development can be used to be more responsive of needs of educators (Prestridge & Tondeur, 2015). Online professional development can be used to allow the user to control “the nature and timing of support activities and services” (Prestridge & Tondeur, 2015, p.216). It can also be used to “enable teacher self-renewal and self-efficacy as a key part of helping teachers deal constructively with the proliferation of education resources and tools available to them” (Prestridge & Tondeur, 2015, p.216). Online professional development provided in various types. Bates, Phalen, and Moran (2016) categorized the three types of online professional development: synchronous—online learning activities happened in the real time that facilitator typically supervise in individual or group of teachers who are participating in the learning experience at the same time, asynchronous—online learning activities happened at different times for different teachers that activities are often self-directed by teacher to determines what and how they learn as well as when they learn, hybrid—as learning activities include in-person courses that require participating online
session or complete the online tasks and may use synchronous or asynchronous online tools. Bates et al. (2016) also suggested educators have to consider a teacher’s learning goals and styles when they selected to learn on online professional development.

Tseng and Kuo (2014) studied the impact of social participation and knowledge sharing in the online professional community in Taiwan. They identified the critical factors important to nurture of teachers’ cultures on social participation and knowledge sharing. They found that keeping a closer connection among the online professional community of practice teachers can lead to greater recognition. Teachers can help their online teacher members secure potential resources and maintain the supporting through the social network.

Participating in social network can produce a long-term virtual learning communities. Online professional development that may be equally as powerful as in-person professional development (Bates et al., 2016). However, the training needed to engage in online professional development may be a barrier. Also, it may be ineffective if it does connect to actual classroom practice (Wells, 2007).

Kopcha (2012) examined the common barriers to technology integration under a program of sustained professional development in the context of an elementary school. The barriers can be noticed as the challenge for continuing the integrating technology to program development. The lack of time was the biggest challenge. It was hard for a teacher to find time to practice including time to study on how to use technology for teaching. Teachers often perceived technology as a burden on their time because it interrupted their instruction, required additional training, and took a time to plan. Moreover, the teacher’s belief was continuing an obstacle to technology use. Teachers
always believed technology was important but they were not able to instruct it without having training or mentoring. After training or working with a mentor they were able to come across with the program that fit with the curriculum. According to Smith and Sivo (2012), the failure of online professional development systems seems to rely on technology acceptance.

Type of Professional Development Participation

The voluntary or mandatory participation was also a condition that usually required of state or school policy as in the United State in order to the difference of policy in each country. There were also appeared in the education policy in Southeast Asia such as Thailand (TPDI, 2017). In the United State, the majority of teachers participate in professional development activities in a year, in some cases, teachers are mandated by their districts or states to do so, while in other cases their participation is voluntarily (Choy, Chen, & Bugarin, 2006). Additionally, teacher professional development in Thailand has offered the program to a teacher for selecting and voluntary participation within the multidimensional teacher professional development program (TPDI, 2017).

Generally, volunteering is pervasively described as a willingness of people to involve and spending time to do something without enforcement and compensation. There is a valuable pathway to employment, allowing people to develop personally and professionally. More specifically, voluntary action is the action of an individual, collectivities as it is characterized primarily by the seeking of mental benefit such as voluntary participation, common interest activity (Smith, 1975).
People who look for the professional improving or become professionals in their profession, they have to look for the opportunity in several ways to enhance their knowledge and skills. Especially, professionals in an academic area, they tend to voluntarily seek a new learning (Mizell, 2010). Bashir, Crisp, Dayson, and Gilbertson (2013) proposed that volunteering revealed as a tool for learning and practicing participatory democracy. Moreover, volunteering was typical of those taking part in tertiary courses (Timperley, Wilson, Barrar, & Fung, 2007). Many organizations provided the learning resources to members for participating in ongoing learning to approve competency in their profession. For instance, the medical center provided the Stress Management and Resiliency Training (SMART) program to improve resiliency and health behaviors in healthcare employees (Werneburg et al., 2018) and Ammentorp et al. (2014) presented the supporting from organization in Denmark, the communication skills training offered to employees’ communication skill. Specifically in the education field, the learning resources or programs to develop educators’ competence was established pervasively in many institutions. This provision might convince educators to improve their proficiency and also become professional.

Individual professional development is one of the professional development standard (NSDC, 2011). It was a way of development whether teacher engagement was voluntarily or mandatorily. Lieberman and Wilkins (2006) presented the Professional Development Pathways Model (PDP) that aligned with the teacher’s need includes the need for schools and students. The determine the appropriate professional development pathways was a step which allowed teacher choosing individualized opportunities to learn such as graduated coursework and training/workshop (Lieberman & Wilkins, 2006).
A voluntary teacher may need sustained motivation to continue working and professional growth. Therefore, individual professional development was also necessary for a role of development.

Anderson (2008) investigated the categories of knowledge that teachers sought in which valuable knowledge for them in voluntary professional development, Mathematics course and workshop at the University of Sydney. The training place provided three courses for developing teachers’ knowledge in different mathematics level: a primary course, middle course, and secondary course. Teacher participation in the professional development was voluntarily. The interesting finding was that teachers at different levels reported at different needs and knowledge value. Primary school teachers needed to enrich their content knowledge or subject knowledge matter, while secondary teachers were more interested in pedagogical content knowledge and using technology to support learning and teaching in order to further explore curriculum knowledge. Likewise, technology in the classroom was a high need to integrate for supporting the teaching and learning (Wells, 2007; Yamagata-lynch, 2003).

The present situation in many countries tends to perform the mandatory professional development to fulfill the competency of education systems, especially focusing on the small unit as new teachers. They are mandated to participate in the professional development. In Australia, Skilbeck and Connell (2003) presented, since 2000, the Australian government has been sponsoring the Quality Teacher Program. The program aims to update and improve teachers’ skills. The program supports teacher development and assembles professional learning resources among nation in the priority areas as well as provides professional network for teacher leaders. Then program also
operated to the specific state area as being the state program. It used professional development activities to tailor the conferences, workshops, online or digital media, training of trainers, and school project. The program required teachers to train through a series of the program over several courses.

The educational partnerships such as the local university are commanded to incorporate in the professional development. The local university has the role of collaboration with schools (Jaquith et al., 2010). The integration program of professional development with traditionally in university-based is filled into the approaches of development. The university professional takes on the role of expert knowledge givers or coaches. Yamagata-lynch (2003) examined the importance of professional development program integrating technology into the curriculum in the context of teachers’ everyday work life. Teacher Institute for Curriculum Knowledge about Integration of Technology (TICKIT) program, yearlong program, was used in rural Indiana K-12 schools. This program was assigned to school under the teacher development policy that means teachers are mandated to attend the program. Teachers were responsible for completing two technology curriculum integration lesson in which participate workshops, online activities, and conference, provided by the program staff at Indiana University. The program result presented using technology in the classroom became a communal expectation of teachers’ work life. They reschedule their everyday practices and effort for developing innovative lessons in their subject area. The program also built on the community or partnership between teachers, school district, and university staffs to engage in actions for achieving their goal.
Whether the professional learning opportunities were voluntary or mandated. Timperley et al. (2007) argued that the type of participation to be less significant than professional development effectiveness that was a positive sufficient time duration, consistency within the professional learning experience and the border social and educational context, but the type of participation also had little effect on teacher outcome.

Despite teacher realized the benefit of the professional development, teacher participants rarely believe that they need to engage in deep learning or to change practice substantively (Wilson & Berne, 1998). When directly look at teachers’ mental, they expressed in some of the mental effects. Timperley et al. (2007) stated that administrative or peer pressures influence volunteering behaviors. Moreover, Teachers have been pressured to work collaboratively with one another and to raise school standards (Darling-Hammond, 1999; Yamagata-lynch, 2003).

Teacher Motivation

Motivation is a concept that helps us to understand human behavior and performance (Galbraith, 1990). Motivation is characterized as a model of thought that is an internal force in an individual’s behavior which help guides and maintain behavior (Achakul & Yolles, 2013; Thorkildsen, 2002). The word “motivation” is frequently used to describe the processes that: (1) give the direction of behavior, (2) arouse behavior, (3) allow the behavior to persist, and (4) lead to choosing or preferring a particular behavior (Wlodkowski, 1985). According to Schunk, Pintrich, and Meece (2008) claimed that motivation, based on cognitive perspective, was defined as “the process whereby goal-directed activity is instigated and sustained” (p.4). This definition refers to motivation as the process rather than a product. Motivation involves the provision of energy for action,
and for required activities with effort and persistence. Activities are triggered by motivational processes as both effects and expectations.

McMillan and Forsyth (1991) presented a view of motivation that related to learning. McMillan and Forsyth defined motivation as “purposeful engagement in classroom tasks and study, to master concepts or skills” (p. 39) and also motivated learners to dedicate for learning in which strived to achieve the most benefits with doing less of work. Likewise, Schunk, Pintrich, and Meece (2008) proposed that “motivation is an important quality that pervades all aspects of teaching and learning” (p. 4). Specifically, the views of motivation identified an individual cognition as the main aspect of behavior (Pintrich, 2003). Also, Wigfield (2000) claimed that motivation determines what reasons’ learner do involve in different activities, the degree of continued involvement, and the amount of effort to involve in different activities.

Motivation conceptualized in several ways which under the several theories of motivation. Self-determination theory is one of the best-known theory that used as the framework of self-motivation (Ryan & Deci, 2000). The principle of this theory was the distinction of two type of behaviors, the first one was a stem from an individual’s sense of self and the other was a stem from outside of one’s self (Ryan & Deci, 2000). The behavior is performed by personal curiosity, inherently interesting, challenges, and enjoyment that were the stems from individual’s sense of self. It is performed an activity from intrinsic motivation. On the other hand, people performed behaviors because of the externally pressured such as social value. It refers to engage the activity with extrinsic motivation.
In 2000, the researchers defined intrinsic motivation as “doing an activity for the inherent satisfaction of the activity itself.” (Ryan & Deci, 2000, p.71). Intrinsic motivation leads people to act purely to satisfy their curiosity or desire for mastery. For instance, the productive achievements which doing project typically occurred when teachers are motivated by an intrinsic interest. The intrinsic motivation with self-determination theory can be described by the other sub-theory. Cognitive evaluation theory is a sub-theory of self-determination theory that proposes the fulfillment of three basic psychosocial needs to foster intrinsic motivation, which is competence (efficacy), relatedness (affiliation), and autonomy (self-determination) (Deci & Ryan, 1991; 1994). Deci, Vallerand, Pelletier, and Ryan (1991) defined those three needs: first, competence as realize the abilities in performing to persist the different consequence and “being efficacious in performing the requisite actions, second, relatedness as “developing secure and satisfying connections with others in one’s social milieu”, and third autonomy as “being self-initiating and self-regulation of one’s own action” (p. 327).

Extrinsic motivation refers to “the performance of an activity in order to attain some separable outcome” (Ryan & Deci, 2000, p. 71). Extrinsically motivated behaviors will be undertaken for reasons other than the activity itself. The qualitative difference of behaviors will arise due to the difference in the degree to which external forces have been internalized, which is taking in regulation, and integrated, which is a further transformation of regulation into their own self (Ryan & Deci, 2000). The second sub-theory is the organismic integration theory (OIT). The OIT describes a different external forces promote the internalization and integration of the regulation in individual behavior. Ryan and Deci (2000) consideres the continuum reflecting the various level of external
motivation ranging from doing something out that is influenced by the force outside the individual to doing something with their own regulation that associated with promoting internalization and integration. The organismic integration theory categorized extrinsic motivation into four types of forms of regulation; external, introjected, identified, and integrated (Deci and Ryan, 1985). In Figure 1, it illustrates the organismic integration theory of motivation types, arranged by the degree of how much the behavior emanates from an individual’s sense of self.

The lowest level of internalization and integration refer to an external regulation. Such behaviors are performed only to satisfy an external demand such as earn rewards or avoid punishments. The actions have an external perceived the locus of causality.

The second type of extrinsic motivation is introjected regulation. This involves following a regulation that has been partially internalized but not accepted as a personal goal. This is a behavior performing to avoid guilty or anxiety or to enhance pride. The actions have a somewhat external perceived the locus of causality that means the action is not really experienced as part of individual’s sense of self.
Figure 1. Type of Motivation in Self-Determination Theory (Ryan & Deci, 2000).

A more self-determination type of extrinsic motivation is identified regulation. This type suggests that the external force has become a personally important goal when the goal is valued because it is useful rather than inherently desirable. The locus of causality is somewhat internal and behavior are performed with the consciously valued goals.

Finally, the large self-determination type of extrinsic motivation is integrated regulation. This occurs when “identified regulations are fully assimilated to the self” (Ryan & Deci, 2000, p.73). People integrate the external influences with the internal interest to become a part of their personal identities and needs. That is, the actions have done to maintain the separable behavior outcome rather than for one’s self-inherent enjoyment.
Self-determination theory distinct a motivation into main categories, intrinsic and extrinsic motivation. The fundamental assumption of motivation is influenced by the degree of self-control in their autonomy and choices individual make. The behavior can be emanated from individual’s sense of self to the outside of individual’s sense of self. Theory posits in the supporting for learners’ feeling of relatedness, competence, and autonomy that is necessary for enhanced learner performance, cognitive, and personality development through the whole life span (Ryan & Deci, 2000).

Perkins (1992) claimed that “people learn much of what they have a reasonable opportunity and motivation to learn” (p. 45). Likewise, Elliot and Deweck (2005) stated that motivation was more powerful and a significantly important factor for academic learning and achievement since childhood through adulthood. Academic motivation, specifically, is also an important factor for academic learning (Mubeen, Saeed, & Arif, 2013). Academic motivation is regarding to doing tasks, effort, persistence in academic tasks, and understanding the knowledge in a particular field. Motivation has a positive impact on learning by encouraging, advocating, and giving direction on learning activities (Mubeen et al., 2013).

In addition, a motivation influences in learning development that presence of motivation has been positively related to teachers’ participation in learning activities and application of new instructional strategies (Gorozidis & Papaioannou, 2014; Shulman & Shulman, 2004). They performs a motived behavior to learn. However, the motivation to learn may be reduced when they are mandatorily assigned to the learning program (Kennedy, 2016).
Teachers’ motivation to continue learning to become a professional, impact their personal and professional lives (Kowalczuk-Wałędziak, Lopes, Menezes, & Tormenta, 2017). According to Thomson and Kaufmann (2013), teachers’ motivation for engaging in a professional development program was strongly related to their expectations and values attributed to the program. Also, teachers who perceive there to be value in learning new teaching skills from attending professional development programs have more positive development in their teaching practices (Pop, Dixon, & Grove, 2010).

Several researchers have conducted research regarding teachers’ motivation for engagement in professional development programs. A few of these studies included motivational dimensions from self-determination. Jansen in de Wal, den Brok, Hooijer, Martens, and Antoine Van Den (2014), investigated the teachers’ motivation, along on four dimensions from self-determination to engage in professional learning. Teachers’ profile membership as a group reflected they were extremely autonomous, moderately motivated, highly autonomous, and externally regulated on engagement in professional development. The results showed that teachers who have high intrinsic motivation and identified regulation were more likely to engage in professional development activities. Those teachers reported that they found it enjoyable, interesting, value it personally, and see it as important to their goals. Likewise, Gorozidis and Papaioannou (2014) examined teachers’ motivation and intentions for participating in training, and also the type of motivation that optimally influences teacher intention in training program. Researchers measured four types of motivation as intrinsic, identified, introjected, and external motivation for the high school teachers who participated in the training program. Autonomous motivation, which is intrinsic motivation of high school teachers positively
affected the teachers’ intention. That is, teachers who have high pure interest and curiosity will have greater intent to participate in a training program. These findings lead to greater understanding of how intrinsic motivation influences teachers’ engagement in professional development.

In addition, Thomson and Turner (2015) explored teachers’ reasons for continuing to teach and the relationship between teachers’ reasons and their motivation for engaging in professional development. Researchers have also investigated the relationship between teachers’ reasons and teacher characteristics as well as the relationship of each training outcomes. For example, researchers have focused on the Great Expectation (GE) professional development program in the US. Public teachers in different grade levels who enrolled in the professional development program were asked to report their reasons along three categories and characteristics that include teaching efficacy and responsibility. They found that teachers who attended the program were highly motivated to continue teaching, to engage in professional development, and to make positive instructional changes after attendance. Teachers reported that they mainly motivated to continue teaching because of altruistic reasons such as a desire to help children learn, and intrinsic reasons such as enjoyment for working with children. External motivators such as job perception and administrative incentive were significant influences on teachers’ engagement in the professional development program. Moreover, the findings also indicated that teachers’ efficacy beliefs were strongly influenced by teachers’ participation in professional development. Similarly, the professional recognition was important on teachers’ effort to further engage in the professional development program (Thomson & Kaufmann, 2013).
Many perspectives about professional development were reported by teachers who have engaged in the professional development. Guskey (2000) classified participant learning goals for professional development into three broad categories: cognitive, psychomotor, and affective goals. These goals categories described the teachers’ understanding of the content they teach, skills and behaviors, and attitudes and beliefs. Moreover, other studies focus on the influence of individual and social support factor for teachers’ participation in professional development. Kwakman (2003) examined the factors affecting teachers’ participation in professional learning activities. The results showed that personal factors are more significant in predicting professional learning activities than are task and work environment factors. That is, teachers’ attitude, meaningfulness of the program, and feasibility of activities have more influence in participating in professional learning activities. Although task and work environment factors were shown to affect teachers’ participating in professional learning activities, these effects were much smaller than the effect of personal factors.

The reason for participation is one aspect that is used to explain teachers’ motivation for participating in the professional development program. Durksen, Klassen, and Daniels (2017) reported that teachers’ efficacy beliefs influenced teachers’ professional learning (TPL) beliefs and the teachers’ reason for learning. This study showed that the teacher most important reason for the participation in the program was to learn more about how to teach more effectively. The next most important teachers’ reason was to build a learning community. Similarly, Pop et al. (2010) explored the teachers’ reason for participation in the professional development. In that study, teachers reported the main reasons for attending professional development were to gain new
teaching ideas and to stay involved in professional growth as well as to gain more content knowledge.

McClelland Need theory

McClelland (1985) proposes a theory of needs that reflect an individual’s specific needs. This theory suggests an approach to identifying people’s motivating drivers. The three primary needs consist of the following:

Need for achievement is the desire to attempt to do and to overcome obstacles for achieving a specific outcome and to live up to a high standard. McClelland claimed that people with a high need to achieve will seek career situations that allow them to satisfy this need. They also have a greater expectation of success for meeting individual achievement standards or goals and work hard to meet their goals (McClelland, Koestner, & Weinberger, 1989). Moreover, high-need-achievers also need to reflect on feedback to monitor their achievement (McClelland, 1985). On the other hand, McClelland (1985) and Piedmont (1988) studied the negative effect of competition on the high need achievement individual. The results indicated that high-need-achiever are more likely to cheat on examinations in certain situations.

Need for power is the desire to influence others or maintain some level of power over others. Peoples’ need for power can be of two types: personal or institutional power. People who need personal power desire to influence or direct others while people who need institutional power desire to command others as well as act authoritatively toward others to achieve the goals of the institution. They realize to properly use the power over people enables them to complete tasks and makes a difference in a positive way. Power is essential to these processes in order to make change and a difference (McClelland, 1985).
Need for affiliation is the desire to retain a strong positive relationship and reflect a need for acceptance from other people. High-need-affiliation people are most likely to comply with the norm in their community. They prefer to interact with those who have expertise in their field when they are working.

In addition to McClelland, other researchers have studied the function of needs underlies their willingness for doing. Clary, Ridge, Snyder, Copeland, Haugen, and Miene (1998) categorized the motivation volunteering according to the functions of needs and the satisfaction that results. These are:

- Understanding— need to gain the skills through hands on experience
- Enhancement— need a psychological development.
- Career— need a satisfying career or career development.
- Social— finding social relationships or good community.
- Values— expressing personal values.

Professional Life Phase

Several studies of teacher learning or teacher development across the professional life phase have been conducted in the last decade. Professional life phase is utilized as a variable and categorized based on several models. The primary goal of using professional life phase or teacher career stage in models is to explain the prototypical development of individual teacher characteristics in terms of a distinct career stage.

In 1989, Huberman model is distributed the model of teacher development. The model is categorized to the three main stages. Each stage is identified based on the characteristics development to set of five consecutive stages that connected to individual teaching experience.
The first phase, the beginning of career refers to a starting of the teaching profession as the novice. This is a time of survival and discovering. Huberman divided into three sub-phase at the novice stage. At early the novice stage, a primary concern in surviving occurred and go through a lot of task of teaching concern in the middle novice stage. At the middle novice stage, typically emerge a sense of exhaustion, feeling overwhelmed and have high responsibilities of the classroom at the same time. The three sub-phase is the late novice stage that emerge an impact on students’ concern on teachers who are in this stage.

The second phase is the middle of career. This is a time of stabilization, experimentation or activism, and stock-taking. Teachers become more established in their profession, feel confident in their professional skills, and more affiliated with the teaching community. They intend to increase their instructional impact with new material and instructional strategies.

The third phase is the late of career. This is a time of serenity and disengagement. That is, teachers at this stage are already very experienced in which very comfortable with classroom and their role, however, they still interest in developing their knowledge and skills. At the end of career, teacher tends to reduce their commitment and career ambition. Moreover, teacher at this stage approach to withdrawal from the profession.

Steffy and Wolfe (2001) also presented the model that introduces a vision of best practice of teacher progress based on transferring knowledge and contextual experience to the next phase. This is the Life Cycle of the Career Teacher model. The model identifies six distinct phases of development.
1. Novice phase—this phase starts when pre-service students face the practicum experience.

2. Apprentice phase—this phase begins when teachers were assigned responsibility for planning and conducting instruction to students on their own. It continues until teachers able to synthesis of knowledge, pedagogy, and also high confidence appear. These capabilities normally occur during the two or three years of teaching.

3. Professional phase—teacher promote a development in their self-confidence that ready to being an educator and seek the chance to enhance the teaching skill.

4. Expert phase—teacher in this phase should be developed their skill as expertise or master teacher.

5. Distinguished phase—teachers have a truly gifted in their field and outstanding in teaching or knowledge competence.

6. Emeritus phase—teachers who retire after a lifetime of teaching have praise and reputation. They also continue to serve the profession as a mentor and coach.

Researchers identify professional life phase in different interval experience in which utilize the different model to examine a range of influences from life-span perspective (Durksen et al., 2017; Louws, Meirink, Veen, & Driel, 2017; Richter et al., 2011; Vermunt & Endedijk, 2011). Richter et al. (2011) proposed the three of professional lifespans based on Huberman model and empirical data from the SASS (1999-2000) that help focus on teachers’ motivation development across career stage.
The first phase is the beginning of the career which refer to teachers in first six years of teaching experience. The second, the middle of the career refer to teachers who experienced 7-30 years of teaching. The third, the end of the career refer to teachers who experienced greater 30 years of teaching. Similarly, Day and Gu (2009) divided the professional life phase into three phases. The first phase is the early career: teachers who have an experience in teaching between 0-7 years. Next, the mid-career teacher: teachers who have an experience in teaching between 8-23 years, and the last phase is later professional teacher life phase: teachers who have an experience in teaching greater than 24 years.

Contingencies of Self-Worth

Contingencies of self-worth are sources of motivation and areas of psychological vulnerability (Crocker & Knight, 2005) and also contingencies of self-worth regulate individual behavior. Crocker and Wolfe (2001) defined the contingencies of self-worth as “domain…of outcome on which a person has stake his or her self-esteem, so that a person’s view of his or her value or worth depend on perceived success or failures…to self-standard in that domain” (p. 594). Also, Crocker and Wolfe proposed that contingencies of self-worth represented the domains in which goals, either long-term or short-term goals, were linked to self-worth. All goals had self-regulatory outcome in which people pursued to achieve the success and avoided failure in domains on which self-worth was contingent (Crocker, Luhtanen, Cooper, & Bouvrette, 2003; Crocker & Wolfe, 2001; Carver & Scheier, 1998). People, in general, perform behaviors to enhance their self-worth within their particular contingent domains. The expression of
contingencies of self-worth had a self-regulation function for influencing the domains in which people direct their energies (Crocker et al., 2003).

Crocker et al. (2003) identified seven domains of contingencies of self-worth include family support, competition, physical appearance, God’s love, academic competence, being a virtuous or moral person, approval from generalized others. Competencies domain, briefly, refers to specific abilities like academic that self-esteem is derived in part from assessing of one’s specific abilities. Competition domain refers to being superior to other or outdoing others. People who stake their self-worth in competition feel good about themselves when they feel that their performance is better than others. Approval from generalized others domain refers to the receiving approval and acceptance from others. For instance, the views from other in yourself are an important basis of self-esteem (Leary & Baumeister, 2000). Family support domain refers to perceive affection and love from family members. Appearance domain refers to self-evaluations of one’s physical appearance. God’s love domain refers to the belief that one is valued by a supreme being. The last domain is the virtue that refers to adherence to a moral code.

Furthermore, contingencies self-worth are classified into two types that people remained their self-esteem as internal and external contingencies (Crocker et al., 2003; Crocker & Wolfe, 2001). External contingencies are the contingencies of factors occurring that out of control by ones’ self. These contingencies include family support, competition, appearance, academic competence, and approval from others. On the other hand, internal contingencies are the contingencies that depend on either one’s own behavior or psychological process operate within the individual such as competencies and
virtue. Crocker and Wolfe claimed that internal contingencies are healthier than external contingencies as well as are related to the degree of a self-esteem. Also, they claimed that self-worth with multiple contingencies may possess within individuals that vary in their degree of importance and accessibility.

Summary

Teacher professional development is one key to improving teacher competencies (Kunter et al., 2013). To enhance teachers’ needs for learning and developing, several factors may potentially consider. Teachers’ motivation for continuing education in professional development is a significant factor in teacher development. Teachers’ motivation can be changed over time in any professional phase. Also, the teachers’ view of their worth is different based on their perceived success or failures of self-standard in each domain (Crocker & Wolfe, 2001). The domains of contingencies of self-worth comprised of family support, competition, physical appearance, God’s love, academic competence, being a virtuous or moral person, approval from generalized others (Crocker et al., 2003).

This study attempts to validate the indicators that contribute to teachers’ motivation for participating in voluntary professional development as well as sought to determine the role that contingencies of self-worth may play in which indicators that contribute to their participation. Furthermore, this study attempts to examine in what way professional life phase may be related to motivation for participating in professional development and contingencies of self-worth.

The existing literature showed a variety in what teachers’ motivation for voluntary continuing education in professional development and theory that helped to
explain the motivation. Also, Crocker et al. (2003) proposed seven domains of contingencies of self-worth. It may relate to teachers’ motivation across three professional phases.
CHAPTER III - METHODOLOGY

The purpose of this study was to validate the relative importance of indicators that contribute to teachers’ motivation for participating in voluntary professional development and contingencies of self-worth. It sought to determine the relationship of these indicators that contribute to teacher participation with contingencies of self-worth. Additionally, it examined in what way professional life phase may be related to indicators’ importance for participating in voluntary professional development and contingencies of self-worth.

Research Questions

The specific research questions for this study are:

1. What is the relative importance of the indicators of motivation for participating in voluntary professional development?

2. What is the relative importance of the indicators of contingencies of self-worth?

3. Are the indicators of motivation for participating in voluntary professional development related to contingencies of self-worth?

4. Is the relationship between motivation indicators for participating in voluntary professional development and contingencies of self-worth moderated by professional life phase?

Participants

Voluntary professional development programs are open to all teachers in public schools who may register to participate in programs hosted by training unit. The training unit offers specific courses representing three domains: knowledge, skill, and attitude with courses are approved by the Teacher Professional Development Institute (TPDI).
Because the majority of training units operate in the university setting, sample for this study were teachers who participate in voluntary professional development at Lampang Rajabhat University training unit, in Thailand. The teachers represent different grade levels and are teaching in different subject areas. These teachers are also teaching in both primary and secondary public schools. Teachers were asked to voluntarily complete the questionnaires.

Sample selection method was non probability sampling that was convenience sampling. To estimate the sample size needed to make general conclusions the researcher considered the sample requirements in each estimated parameter based on the sample size requirements for structural equation modeling. Kline (2005) suggested that 10 to 20 participants per estimated parameter would in a sufficient sample. Based on this rules-of-thumb, with 29 parameters in the model (Figure 2), the minimum sample size should be 580 participants. In this study, the sample was 623 teachers that reaching the minimum number of responses needed.

Instruments

Teachers’ motivation for participating in voluntary professional development and contingencies of self-worth were measured. Teacher motivation for participating identified the reasons for participating and uses the Reason for Professional Development Participation (RPDP) scale developed for this study. For the Reason for Professional Development Participation (RPDP) scale, the researcher modified items from the identified regulation subscale in Academic Self-Regulation Questionnaire (Vansteenkiste, Sierens, Soenens, Luyckx, & Lens, 2009) and Reason for Professional Learning scale Durksen, Klassen, and Daniels (2017).
The Reason for Professional Development Participation (RPDP) scale was measured by using a self-report 7-point scale. Teachers were asked to assign a value, ranging from 1 = not at all important to 7 = very important, to possible reasons for participating professional development. This scale consists of 6 items that are shown in Table 1.

The original reliability of the Academic Self-Regulation Questionnaire as indexed by Cronbach’s alpha was founded. The Cronbach’s alpha in identified regulation subscale was .79 (α= .79)(Vansteenkiste et al., 2009). Whereas, the Cronbach’s alpha coefficient was not available for the Reason for Professional Learning scale, the reasons for professional learning included in this scale was provided by a focus group of teachers who had experience in professional development (Durksen et al., 2017).

Table 1

<table>
<thead>
<tr>
<th>Items of the Reason for Professional Development Participation scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>I participated because…</td>
</tr>
<tr>
<td>2.1 Learning more about how to teach more effectively.</td>
</tr>
<tr>
<td>2.2 Building a learning community (sharing with colleagues, social network).</td>
</tr>
<tr>
<td>2.3 Gaining subject area knowledge.</td>
</tr>
<tr>
<td>2.4 Being influenced by a significant person, teacher, or mentor.</td>
</tr>
<tr>
<td>2.5 Learning more about myself (e.g. my strengths as a teacher)</td>
</tr>
<tr>
<td>2.6 Leading me to achieve the important goal (e.g. Professional growth ranking)</td>
</tr>
</tbody>
</table>

The teacher’s contingencies of self-worth were measured by the Contingencies of Self-Worth (CSW) scale. The Contingencies of Self-Worth (CSW) scale (developed by Crocker, Luhtanen, Cooper, & Bouvrette, 2003) has 7 subscales and includes family
support, competition, physical appearance, God’s love, being a virtuous or moral person, academic competence, and approval from others. The terminology used in the God’s love subscale is not appropriate for the current sample being used in this study therefore the researcher modified term to reflect religious beliefs so the subscale is based on this sample’s religion. Contingencies of self-worth was measured by using self-report on a 7-point scale. This scale consists of a total of 35 items with 5 items within each subscale. The items in each of the 7 subscales are shown in Table 2. Teachers were asked to indicate agreement, ranging from 1 = strongly disagree to 7 = strongly agree, in terms of how they feel. When scoring each subscale, some items were reverse-scored before being summed (Q1.4, Q1.6, Q1.10, Q1.13, Q1.15, Q1.23, and Q1.30) such that (1 = 7), (2 = 6), (3 = 5), (4 = 4), (5 = 3), (6 = 2), and (7 = 1).

The original reliability of Contingencies of Self-Worth (CSW) scale with its seven subscales was reported by Cronbach’s alpha coefficient as: family support (α = .84), competition (α = .87), appearance (α = .83), God’s love (α = .96), virtue (α = .83), academic competence (α = .82), and approval from others (α = .82) (Crocker et al., 2003). Also, the confirmatory factor analysis indicates a seven-factor structure fit the data and the parameter values were in the appropriate range (Crocker et al., 2003).

The questionnaire was also including teacher demographic questions including gender, age, teaching experience, teaching level, and academic rank.
Table 2  
*Items of the Contingencies of Self-Worth scale*

<table>
<thead>
<tr>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Family Support</strong></td>
</tr>
<tr>
<td>1.7 Knowing that my family members love me makes me feel good about myself.</td>
</tr>
<tr>
<td>1.10 My self-worth is not influenced by the quality of my relationships with my family members.</td>
</tr>
<tr>
<td>1.16 When my family members are proud of me, my sense of self-worth increases.</td>
</tr>
<tr>
<td>1.24 When I don’t feel loved by my family, my self-esteem goes down.</td>
</tr>
<tr>
<td>1.29 It is important to my self-respect that I have a family that cares about me.</td>
</tr>
<tr>
<td><strong>Competition</strong></td>
</tr>
<tr>
<td>1.3 I feel worthwhile when I perform better than others on a task or skill.</td>
</tr>
<tr>
<td>1.12 Knowing that I am better than others on a task raises my self-esteem.</td>
</tr>
<tr>
<td>1.20 Doing better than others gives me a sense of self-respect.</td>
</tr>
<tr>
<td>1.25 My self-worth is affected by how well I do when I am competing with others.</td>
</tr>
<tr>
<td>1.32 My self-worth is influenced by how well I do on competitive tasks.</td>
</tr>
<tr>
<td><strong>Appearance</strong></td>
</tr>
<tr>
<td>1.1 When I think I look attractive, I feel good about myself.</td>
</tr>
<tr>
<td>1.4 My self-esteem is unrelated to how I feel about the way my body looks.</td>
</tr>
<tr>
<td>1.17 My self-esteem is influenced by how attractive I think my face or facial features are.</td>
</tr>
<tr>
<td>1.21 My sense of self-worth suffers whenever I think I don’t look good.</td>
</tr>
<tr>
<td>1.30 My self-esteem does not depend on whether or not I feel attractive.</td>
</tr>
<tr>
<td><strong>Religious Belief</strong></td>
</tr>
<tr>
<td>1.2 My self-worth is based on religious belief.</td>
</tr>
<tr>
<td>1.8 I feel worthwhile when I have religion.</td>
</tr>
<tr>
<td>1.18 My self-esteem would suffer if I didn’t have religion.</td>
</tr>
<tr>
<td>1.26 My self-esteem goes up when I feel that religious belief with me.</td>
</tr>
<tr>
<td>1.31 When I think that I’m disobeying religious principles, I feel bad about myself.</td>
</tr>
</tbody>
</table>

55
Table 2 Continued

*Items of the Contingencies of Self-Worth scale*

<table>
<thead>
<tr>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic Competence</strong></td>
</tr>
<tr>
<td>1.13 My opinion about myself isn’t tied to how well I do in school.</td>
</tr>
<tr>
<td>1.19 Doing well in school gives me a sense of self-respect.</td>
</tr>
<tr>
<td>1.22 I feel better about myself when I know I’m doing well academically.</td>
</tr>
<tr>
<td>1.27 My self-esteem is influenced by my academic performance.</td>
</tr>
<tr>
<td>1.33 I feel bad about myself whenever my academic performance is lacking.</td>
</tr>
<tr>
<td><strong>Virtue</strong></td>
</tr>
<tr>
<td>1.5 My opinion about myself isn’t tied to how well I do in school.</td>
</tr>
<tr>
<td>1.11 Whenever I follow my moral principles, my sense of self-respect gets a boost.</td>
</tr>
<tr>
<td>1.14 I couldn’t respect myself if I didn’t live up to a moral code.</td>
</tr>
<tr>
<td>1.28 My self-esteem would suffer if I did something unethical.</td>
</tr>
<tr>
<td>1.34 My self-esteem depends on whether or not I follow my moral/ethical principles.</td>
</tr>
<tr>
<td><strong>Approval from others</strong></td>
</tr>
<tr>
<td>1.6 I don’t care if other people have a negative opinion about me.</td>
</tr>
<tr>
<td>1.9 I can’t respect myself if others don’t respect me.</td>
</tr>
<tr>
<td>1.15 I don’t care what other people think of me.</td>
</tr>
<tr>
<td>1.23 What others think of me has no effect on what I think about myself.</td>
</tr>
<tr>
<td>1.35 My self-esteem depends on the opinions others hold of me.</td>
</tr>
</tbody>
</table>

To create a scale in a different language appropriate for the sample, the original instruments were translated into the local language. The Thai version of questionnaire was created by following the common translation protocols used in cross-cultural research. The back translation technique was employed for translation of all questionnaires for this study to ensure correspond between the English and Thai version. First, the translator who is a native bilingual Thai educational researcher translated the
English version of the questionnaire into Thai. Then another native bilingual Thai educational researcher translated the Thai version of the questionnaire back into English. Afterward, a comparison between the translated English version and the original English version were made to ensure accuracy. Eventually, the final Thai version of questionnaire was administered to samples in Thailand (Appendix C).

Research Design

Due to the need to “capture in time” the data were collected from the teachers who are currently participating in the professional development program. Therefore, a quantitative cross-sectional design was employed in this study (Creswell, 2012). The study focuses on identifying indicators that teachers report as their reasons for participating in voluntary professional development. It also considers the strength of indicators that contribute to teachers’ reason for participating in voluntary professional development as well as the relative importance of those indicators. As shown in Figure 2, the variables for this study were motivation for continuing education in professional development that addresses the reasons for participating; contingencies of self-worth comprised of family support, competition, physical appearance, religious belief, academic competence, virtue, and approval from others; and finally, professional life phase that include three phases.

The quantitative methods enhanced and clarified the contexts of the teachers’ contingencies of self-worth and reasons for participation in voluntary professional development within the data collection, analysis, and inference processes. The conclusion of contingencies of self-worth and teachers’ reason for participating were strengthened by the addition of the interpretation of the importance of the reasons for participation, the
relative importance across indicators, and the relationship of contingencies of self-worth and importance of the reasons testing any moderation by professional life phase.

![Figure 2. Research Model.](image)

**Procedures**

A pilot study is one of the essential stages in the research project that is a process of testing the feasibility of the research project, referring to small-scale versions of the study, especially a pretest of a particular research instrument (Lewis-Beck, Bryman, & Liao, 2004). Therefore, a pilot study was conducted in this study to pretest the instrument in the Thai version. For the sample size of the pilot study, Johanson and Brooks (2010) recommended that 30 representative participants from the population of interest is a minimum sample size on scale development purposes in a pilot study. Therefore, 30 teachers included randomly in the pilot study. Prior to distributing instruments and
conducting the pilot study, the researcher submitted a document to the Institutional Review Board (IRB) indicating permission of the training unit to collect data from teachers participating in professional development training. Once approval was received from the Institutional Review Board (IRB) to conduct this study, the researcher contacted the director of training unit for scheduling the actual date to collecting data. Then, Thai version of the instrument was distributed to teachers who participated in a professional development program at the training unit. After 30 responses were received for the pilot study, the instrument was analyzed using such techniques as reliability analysis.

Following the pilot study, the mixed modes of collecting data were employed. First, in-person survey mode was utilized. After scheduling the collecting data date, on that date the researcher presented the study to teachers in a group meeting using the recruitment script and provided all teachers and standard information consent document. Then, instruments with information sheet at the first page of the questionnaire were distributed to participants in a group meeting when they complete the professional development program at the training unit. Teachers were asked to voluntarily participate and complete questionnaires. They were allowed to withdraw from the survey at any time. Completed questionnaires were kept in folders. The researcher chose second data collection mode as mailing mode. The researcher asked the director of the training unit for mailing questionnaires to the former teachers who participated in the program. The researcher prepared questionnaires putting in envelopes then training program was mailing to former participants. After sufficient data were received, the data analysis process was conducted.
Data Analysis

Before addressing the four specific research questions, the researcher began the analysis process by performing an initial screening of the data. Any missing data were identified and replaced by using single imputation methods, Linear at Trend Point. Descriptive statistics were used to provide the basic features of the data and simple summaries about the sample. For instrument reliability analyses, Cronbach’s alpha was used to test instrument reliability for each subscale. Then, the structural equation model (SEM) was used to define the measurement model of reasons for participation and contingencies of self-worth, and also analyze relationship between factors.

To verify the fit of the model of the reasons for participation and contingencies of self-worth, and determine the relative importance of indicators in both models, a separate confirmatory factor analysis (CFA) was conducted for both factors, which were contingencies of self-worth and reasons for participation, and also the indicators of these factors. To estimate the parameters of the structural equation model (SEM), the maximum likelihood (ML) estimation is the most widely used in practice. The maximum likelihood (ML) estimation is the default in many structural equation model (SEM) program such as AMOS because it is robust and is likely to produce parameter estimates that are consistent, unbiased and efficient (Bollen, 1989). This technique may lead to reasonable parameter estimates under the assumption of multivariate normality of all variables. Also, the structural equation model invariance analysis was employed to address the relationship between the reasons for participation and contingencies of self-worth and also to determine the properties of different indicators on factors across the
three professional life phases. The SPSS and AMOS program were employed to analyze all these procedures.
CHAPTER IV - RESULTS

The results are presented in this chapter to answer the four research questions of this study. This chapter begins with describing the sample descriptively and with the reliability results for the scale in the pilot study. The next section reports the relative importance of indicators of motivation for participating in voluntary professional development as well as the relative importance of the indicators of contingencies of self-worth. Further, the relationship between the indicators of motivation for participating in voluntary professional development and contingencies of self-worth were reported. Lastly, a model was used to determine whether professional life phase moderated the relationship between motivation indicators for participating in voluntary professional development and contingencies of self-worth.

Sample Descriptives

The sample of this study included 623 public school teachers who participated in voluntary professional development at Lampang Rajabhat University. Table 3 displays the demographics information for the teachers in total who voluntarily completed the questionnaire. Overall, the sample demographic revealed a higher proportion of female than male with the highest proportion of teacher age 36-45 years. Due to the importance of professional life phase in this study, the researcher made the distinction in professional life phase based on the categories of teaching experiences model (Day & Gu, 2009). Professional life phase was identified by teaching experience as early career (less than 8 years), mid-career (8-23 years), and late career (more than 23 years). The highest proportion of professional life phase was mid-career teachers. The majority of teachers
were teaching in secondary level and had completed the level of education equivalent to a bachelor’s degree.

Table 3

*Sample Demographics*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number of Teachers</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>195</td>
<td>31.3</td>
</tr>
<tr>
<td>Female</td>
<td>428</td>
<td>68.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age of Teachers</th>
<th>Number of Teachers</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 25 years</td>
<td>22</td>
<td>3.5</td>
</tr>
<tr>
<td>25 — 35 years</td>
<td>171</td>
<td>27.4</td>
</tr>
<tr>
<td>36 — 45 years</td>
<td>183</td>
<td>29.4</td>
</tr>
<tr>
<td>46 — 55 years</td>
<td>151</td>
<td>24.2</td>
</tr>
<tr>
<td>More than 55 years</td>
<td>96</td>
<td>15.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Professional Life Phase</th>
<th>Number of Teachers</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early career</td>
<td>185</td>
<td>29.7</td>
</tr>
<tr>
<td>Mid-career</td>
<td>234</td>
<td>37.6</td>
</tr>
<tr>
<td>Late career</td>
<td>204</td>
<td>32.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching Level</th>
<th>Number of Teachers</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>223</td>
<td>35.8</td>
</tr>
<tr>
<td>Secondary</td>
<td>394</td>
<td>63.2</td>
</tr>
<tr>
<td>Missing</td>
<td>6</td>
<td>1.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teacher Education</th>
<th>Number of Teachers</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower than bachelor’s degree</td>
<td>9</td>
<td>1.4</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>320</td>
<td>51.4</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>290</td>
<td>46.5</td>
</tr>
<tr>
<td>Doctorate degree</td>
<td>3</td>
<td>.5</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>.2</td>
</tr>
</tbody>
</table>
Table 3 Continued

Sample Demographics

<table>
<thead>
<tr>
<th>Academic Ranking</th>
<th>Number of Teachers</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant</td>
<td>51</td>
<td>8.2</td>
</tr>
<tr>
<td>Practitioner level</td>
<td>131</td>
<td>21.0</td>
</tr>
<tr>
<td>Professional level</td>
<td>217</td>
<td>34.8</td>
</tr>
<tr>
<td>Senior professional level</td>
<td>220</td>
<td>35.3</td>
</tr>
<tr>
<td>Expert level</td>
<td>2</td>
<td>.3</td>
</tr>
<tr>
<td>Missing</td>
<td>2</td>
<td>.3</td>
</tr>
</tbody>
</table>

Reliability of Scales

The Thai version of questionnaire was pilot-tested to address the reliability of questionnaire. Cronbach’s alpha was utilized to measure the internal reliability of the Reason for Professional Development Participation (RPDP) scales and measure the internal reliability of each subscale in Contingencies of Self-Worth (CSW) scale which included family support, competition, appearance, religious belief, academic competence, virtue, and approval from others. Cronbach’s alphas for six items in the RPDP scale was .829 and Cronbach’s alphas for CSW scale ranged from .703 to .782. The highest internal reliability in the CSW scale was for the religious belief and virtue subscales. The researcher considered the Cronbach’s alpha greater than .700 to indicate a reliable set of items (Cortina, 1993), thus they all meet the accepted reliability coefficient. All Cronbach’s alphas are shown in Table 4.
Table 4

*Internal Consistency Reliability of RPDP scale and CSW scale*

<table>
<thead>
<tr>
<th>Scale/Subscales</th>
<th>Cronbach’s alpha (α)</th>
<th>Number of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason for Professional Development</td>
<td>.829</td>
<td>6</td>
</tr>
<tr>
<td>Participation (RPDP)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family support</td>
<td>.715</td>
<td>5</td>
</tr>
<tr>
<td>Competition</td>
<td>.703</td>
<td>5</td>
</tr>
<tr>
<td>Appearance</td>
<td>.742</td>
<td>5</td>
</tr>
<tr>
<td>Religious belief</td>
<td>.776</td>
<td>5</td>
</tr>
<tr>
<td>Academic competence</td>
<td>.723</td>
<td>5</td>
</tr>
<tr>
<td>Virtue</td>
<td>.782</td>
<td>5</td>
</tr>
<tr>
<td>Approval from others</td>
<td>.707</td>
<td>5</td>
</tr>
</tbody>
</table>

Furthermore, Table 5 displays the mean, standard deviations, and correlation coefficients among the indicators of motivation for participating in voluntary professional development. The results showed that the highest mean of motivation for participating in voluntary professional development was an improving teaching effectiveness indicator. The highest mean of contingencies of self-worth was family support indicator. The mean, standard deviations, and correlation coefficients among the indicators of contingencies of self-worth are shown in Table 6.
Table 5

Mean, Standard Deviation, and Correlation Coefficients among Indicators of Motivation for Participating in Voluntary Professional Development

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Improving teaching effectiveness</td>
<td>6.06</td>
<td>1.07</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Building community</td>
<td>5.71</td>
<td>1.09</td>
<td>.67**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Gaining subject knowledge</td>
<td>6.04</td>
<td>1.07</td>
<td>.77**</td>
<td>.64**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Being influence person</td>
<td>5.18</td>
<td>1.32</td>
<td>.43**</td>
<td>.54**</td>
<td>.47**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Learning myself as teacher</td>
<td>5.57</td>
<td>1.17</td>
<td>.56**</td>
<td>.59**</td>
<td>.55**</td>
<td>.69**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6. Achieving important goal</td>
<td>5.05</td>
<td>1.58</td>
<td>.24**</td>
<td>.33**</td>
<td>.26**</td>
<td>.54**</td>
<td>.45**</td>
<td>1</td>
</tr>
</tbody>
</table>

**p < .01.

Table 6

Mean, Standard Deviation, and Correlation Coefficients among Indicators of Contingencies of Self-Worth

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Family support</td>
<td>5.45</td>
<td>.71</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Competition</td>
<td>5.17</td>
<td>.78</td>
<td>.32**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Appearance</td>
<td>3.63</td>
<td>.81</td>
<td>.13**</td>
<td>.25**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Religious belief</td>
<td>5.29</td>
<td>.96</td>
<td>.39**</td>
<td>.34**</td>
<td>.03</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Academic competence</td>
<td>5.26</td>
<td>.74</td>
<td>.39**</td>
<td>.43**</td>
<td>.07</td>
<td>.35**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Virtue</td>
<td>5.39</td>
<td>.80</td>
<td>.37**</td>
<td>.35**</td>
<td>.05</td>
<td>.57**</td>
<td>.37**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>7. Approval from others</td>
<td>3.95</td>
<td>.86</td>
<td>.19**</td>
<td>-0.04</td>
<td>0.16**</td>
<td>0.13**</td>
<td>0.12**</td>
<td>0.23**</td>
<td>1</td>
</tr>
</tbody>
</table>

**p < .01.
Before the data analyses were conducted to address the research questions, data were first screened by examining descriptive statistics. All items were checked by using frequencies to determine the number of missing values. The frequencies showed the different number of missing in each of the items and no outliers were detected. Specifically, the item of years of teaching experience was an important item for identifying the professional life phase. There were six cases missing data in this item from various teacher samples. In this case the listwise deletion method was used to handle the missing data. For other items in Reason for Professional Development Participation scale and Contingencies of Self-Worth scale, any missing data were handled by using replacement Linear at Trend Point.

The Relative Importance of the Indicators

The relative importance of the indicators of motivation for participating in voluntary professional development and contingencies of self-worth were addressed. A confirmatory factor analysis was conducted using AMOS.

The relative importance of the indicators in motivation for participating in voluntary professional development

The hypothesized confirmatory factors analysis model of motivation for participating in voluntary professional development (Figure 3) that included six indicators was evaluated. The results from the model fit indices for the hypothesized model revealed a statistically significant chi square test with a value of 335.796 (9, N = 623), p < .001. The TLI and CFI values (.721 and .832) were less than an acceptable value. Also, the RMSEA was .242 with a 90% confidence interval of .220 to .264. An acceptable CFI range is from .90 to .95 and excellent fit being greater than .95 (Kline,
The adequate RMSEA should be less than .08 and a good fit is less than .5, with higher values indicating increasingly worse fit of the model to the data (Kline, 2005).

Therefore, the modification indices were considered in order to respecify the model. The modification indices suggested that the addition of some covariance between error terms would improve model fit. When based on the modification indices suggested and correlation between the errors terms were considered, the respecified model was evaluated including the correlation between the error terms in different indicators. Correlated errors were specified between e4 and e5, e5 and e6 as these indicators were likely prone to social desirability as well as e4 and e6. The respecified model is shown in Figure 4.
The respecified model of the motivation for participating in voluntary professional development latent construct revealed a statistically significant chi square test with a value of 53.207 \( (6, N = 623), p < 0.001 \), and the TLI (.939), CFI (.976) as well as RMSEA was .112 with a 90% confidence interval of .086 to 0.141. Although RMSEA showed a slightly higher value, the TLI and CFI were sufficiently high to retain the specified model.

Figure 4. Respecified Model of Motivation for Participating in Voluntary Professional Development.

For the relative importance of the indicators in motivation for participating in voluntary professional development, standardized coefficients revealed a reasonably robust result, ranging from .311 to .877 and all were statistically significant, \( p < .001 \). Results showed that the highest standardized coefficients were an improving teaching effectiveness and gaining subject knowledge indicators, respectively. All standardized coefficients are shown in Table 7.
Table 7

*Standard Coefficients of the Indicators of Motivation for Participating in Voluntary Professional Development*

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Standardized Coefficient (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving teaching effectiveness</td>
<td>.877</td>
</tr>
<tr>
<td>Building community</td>
<td>.772</td>
</tr>
<tr>
<td>Gaining subject knowledge</td>
<td>.857</td>
</tr>
<tr>
<td>Being influenced person</td>
<td>.555</td>
</tr>
<tr>
<td>Learning myself as teacher</td>
<td>.664</td>
</tr>
<tr>
<td>Achieving important goal</td>
<td>.311</td>
</tr>
</tbody>
</table>

*The relative importance of the indicators in contingencies of self-worth*

The hypothesized confirmatory factors analysis model of contingencies of self-worth (Figure 5) that included seven indicators was evaluated. The results from the model fit indices for the hypothesized model revealed a statistically significant chi square test with a value of 140.281 (14, N = 623), *p* < .001. The TLI and CFI values (.766 and .844) were less than an adequate value, and RMSEA was .120 with a 90% confidence interval of .103 to .139.
Therefore, the modification indices were considered in order to respecify the model. The modification indices suggested that the addition of some covariance between error terms would improve model fit. Based on the modification indices suggested and when the correlation between the error terms was considered, the respecified model was evaluated including the correlation between the error terms in different indicators. Correlated errors were specified between e2 and e3, e2 and e5 due to demand characteristics similarities, while e2 and e7 were correlated due to acquiescence similarity. The final respecified model is shown in Figure 6.

The result of the respecified model of the contingencies of self-worth latent construct revealed a statistically significant chi square test with a value of 50.338 (11, \( N = 623 \), \( p < .001 \), and the TLI (.907), CFI (.951) as well as RMSEA was .076 with a 90%
confidence interval of .055 to 0.098. These values all indicated a good fit between the data and the model.

Figure 6. Respecified Model of Contingencies of Self-Worth Latent Construct.

For the relative importance of the indicators in contingencies of self-worth, standardized coefficients revealed a reasonably robust result, ranging from .104 to .750 and were statistically significant, $p < .001$, and the appearance indicator was statistically significant, $p = .024$. Result showed that the highest standardized coefficients were virtue, religious belief, and family support indicators, respectively while the lowest standardized coefficients was the appearance indicators. All standardized coefficients are shown in Table 8.
Table 8

Standard Coefficients of the Indicators of Contingencies of Self-Worth

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Standardized Coefficient ($\beta$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family support</td>
<td>.561</td>
</tr>
<tr>
<td>Competition</td>
<td>.489</td>
</tr>
<tr>
<td>Appearance</td>
<td>.104</td>
</tr>
<tr>
<td>Religious belief</td>
<td>.711</td>
</tr>
<tr>
<td>Academic competence</td>
<td>.527</td>
</tr>
<tr>
<td>Virtue</td>
<td>.750</td>
</tr>
<tr>
<td>Approval from others</td>
<td>.266</td>
</tr>
</tbody>
</table>

Relationship of Motivation for Participating in Voluntary Professional Development and Contingencies of Self-Worth

The structural path of the full model

The full model that includes a directional path from the contingencies of self-worth to the motivation for participating in voluntary professional development construct was evaluated. The full model included six indicators of motivation for participating in voluntary professional development: improving teaching effectiveness (ITE), building community (BC), gaining subject knowledge (GSK), being influence person (BIP), learning myself as teacher (LMT), and achieving important goal (AIG) and seven indicators of self-worth: family support (FS), competition (CP), appearance (AP), religious belief (RB), academic competence (AC), virtue (VT), and approval from others (AO).
The result of full model revealed a statistically significant chi square test with a value of 249.933 (58, $N = 623$), $p < .001$, the TLI (.912), CFI (.935) as well as RMSEA was .073 with 90% confidence interval of .064 to .082. In summary, the model appeared to represent a good fit to data. The result of the direct path from contingencies of self-worth to motivation for participating in voluntary professional development was statistically significant, $\beta = .421$, $p < .001$. All standardized coefficients in the full model are shown in Figure 7.

Figure 7. Standardized Path Coefficient for the Full Model.
Testing factorial invariance across groups

The initial analysis tested measurement invariance of the scales among three groups of professional life phases; early career, mid-career, and late career. To examine the invariance among three groups of professional life phases, the comparison of the Comparative Fit Index (CFI) in the unconstrained model and constrained measurement weights model was examined. To make the decision for significance testing, the researcher applied the criterion of .01 change in value of the CFI (Cheung, 1999). The result revealed that the CFI was changed by .005 from .929 to .924, which was not greater than the .01 cut-off. The model did not fit statistically worse, indicating the invariance is obtained and the pattern coefficient are equivalent across the three groups of professional life phases.

Then, testing the invariance of the structural model across three groups of professional life phases was examined. The structural equation model was set up in the same way as the prior set up for the confirmatory factor analysis. The value of the CFI in the unconstrained model and constrained structural weight model were compared. The researcher also applied the criterion of .01 change in value of the CFI (Cheung, 1999) for significance testing of structural invariance. The result revealed that the difference value of CFI was .007, changing from .929 to .922, which was not greater than the .01 cut-off. This was not statistically significant, indicating that the path coefficient from contingencies of self-worth to motivation for participating in voluntary professional development was not statistically significant different across three groups of professional life phases. When considering the effect size of each group of professional life phase, the
effect size of the prediction in early career group ($\beta = .545$) was stronger than the effect size in mid-career group ($\beta = .336$) and late career group ($\beta = .343$).
CHAPTER V – DISCUSSION

The present study investigated the relative importance of indicators that contribute to teachers’ motivation for participating in voluntary professional development and to contingencies of self-worth. Also, the researcher sought to examine the relationship between these indicators that contribute to teacher participation with contingencies of self-worth. Further, the researcher examined in what way professional life phase may be related to indicators’ importance for participating in voluntary professional development and contingencies of self-worth.

The proposed research model was guided by the literature which suggests such a relationship exists. The literature also suggests there are differences in teachers’ motivation for professional development for different professional life phases. Specifically, there are seven proposed domains within contingencies of self-worth (Crocker, Luhtanen, Cooper, & Bouvrette, 2003). The seven domains of self-worth consist of family support, competition, appearance, religious belief, academic competence, virtue, and approval from others. For this study, the three professional life phases were identified by teaching experience. Phases were comprised of early career (less than 8 years), mid-career (8-23 years), and late career (more than 23 years).

A quantitative cross-sectional design was employed. The instrument, which was translated to the Thai language, included the Reason for Professional Development Participation (RPDP) scale and the Contingencies of Self-Worth (CSW) scale administrated to 623 teachers. The RPDP scale included items modified by the researcher within the regulation subscale in Academic Self-Regulation Questionnaire (Vansteenkiste, Sierens, Soenens, Luyckx, & Lens, 2009) as well as the Reason for
Professional Learning scale (Durksen, Klassen, & Daniels, 2017). For the data analysis section, the research model was tested through structural equation modelling in order to address the research questions.

Summary of the Results and Discussion

The present study showed several interesting results. The initial results were from the pilot study that measured internal reliability of the Thai version of questionnaires, RPD and CSW scales. An internally consistent set of items with acceptable reliability coefficient was revealed, indicating the appropriateness of the instrument to use in this study. Although the reliability coefficients of the CSW Thai version scale were not the same as the CSW original English version scale, they all met the accepted reliability coefficient and were close to the original scale. The CSW scale has been translated into a different language such as Dutch (developed by Neff & Vonk, 2009) and Japanese (developed by Uchida, 2008) versions. These versions also showed different ranges of reliability values with all meeting commonly accepted reliability coefficients and differences in the number of items from the original CSW scale.

Indicators of motivation for participating in voluntary professional development appeared reasonably robust for the measurement model. Although the measurement model was retained with some model fit indices meeting the adequate model fit values, the measurement model also indicated a reasonably acceptable model. The researcher considered the two decision rules for specifying correlated errors. The modification indices suggested the correlation between the error terms to improve model fit. Furthermore, the correlation of error terms is based on theoretical considerations. Since some indicators were likely influenced by social desirability, and the modification indices
supported this, correlated errors were specified between e4 and e5, e5 and e6, and e4 and e6. The result of the CFA for contingencies of self-worth revealed a reasonably robust fit for the measurement model. However, modifications were employed to achieve an adequate model. The three pairs of correlated errors were specified between e2 and e3, e2 and e5, and e2 and e7. The respecified measurement model of contingencies of self-worth was an adequate fit that related to Yukiko Uchida’s finding (Uchida, 2008).

The relationship of contingencies of self-worth and motivation for participating in voluntary professional was found to be statistically significant. Testing the full model resulted in a statistically significant chi square test that indicated the model represented a good fit to data. These relationship results were tested by using structural equation modeling. The standardized coefficient suggested a moderate relationship between contingencies of self-worth and motivation for participating in voluntary professional development. In summary, the statistically significant relationship and good model fit supported the relationship of self-worth and motivation for participating in voluntary professional development. As Lieberman and Wilkins (2006) finds presented the effective professional development pathway model for accommodating teacher-selected individualized opportunities in professional development this seems a viable option for teachers’ professional development. With this model, teachers have an opportunity to make personal decisions to attend the several forms of professional development that take into account their views of worth to success and their need for professional growth. Also, the findings provide a supporting argument that self-worth is considered an influence of controlled motivation (Deci & Ryan, 1995) and that motivation may be derived from an individual’s sense of self with consciously-valued goals (Ryan & Deci, 2000).
The relationship between motivation for participating in voluntary professional development and contingencies of self-worth moderated by professional life phase was measured through testing factorial invariance across three groups of professional life phases. The sample distribution showed the group distribution of professional life phase which consists of early career 29.7%, mid-career 37.6%, and late career 32.7%. There was adequate distribution for testing factorial invariance. The result revealed that the measurement invariance testing was not statistically significant. This was indicated by the equivalent pattern of coefficients across the three groups of professional life phases. The structural equation model invariance with the directional path from contingencies of self-worth to motivation for participating in voluntary professional development was also tested. The result revealed that the path coefficient was not statistically significantly different across three groups of the professional life phases. Ryan and Deci (2000) claimed that the learner’s feeling of relatedness of personal goal can support enhancing learner’s cognitive and personality development through the whole life span. The finding provides some support for this statement. Although the effect of contingencies of self-worth on motivation for participating in voluntary professional development was not statistically significantly different, the effect size of each group of professional life phases were different in magnitude. The effect size of prediction in early career group was stronger than the mid-career group and late career group while the effect size of the prediction in late career group was stronger than mid-career group.

Additionally, considering the average of the indicators in the constructs will enhance our comprehensive understanding of teachers’ motivation. Measuring teachers’ motivation for participating helps identify the relative importance of reasons for
participating in professional development. Teachers reported that improving teaching effectiveness was of the highest importance for participating in professional development while achieving an important goal was of lowest importance for participating in professional development.

Limitations

There are several limitations associated with the current study that are important to note. As previously noted in the delimitations of this study, the current study was limited to primary and secondary teachers from public schools. They participated in professional development at the Lampang Rajabhat University training unit. Therefore, the results would not be appropriate to generalize to professional development in other units.

Regarding sample size, there are two limitations to note. The sample size met the minimum number of responses needed for structural equation modeling with 10 to 20 participants per estimated parameter being sufficient (Kline, 2005). However, the portions of teachers in each professional life phase were not exactly equal. This could have slightly affected the structural equation modelling analysis. Additionally, the sample in this study was a convenience sample selected from the particular training unit, which is another limitation of this study.

Implications and Recommendations

The current study can enhance the knowledge base on understanding the relationship between the motivation for participating in voluntary professional development and contingencies of self-worth by examining the relative importance of indicators of both variables. The sample included participants across professional life
phases. Teachers’ reasons for participating in professional development and the nature of characteristics of teachers’ contingencies of worth were related thus suggesting that self-worth may affect teachers’ reasons for participation. Even choosing to participate in professional development at all may be initiated depending on teachers’ own self-worth. The results revealed further insights about what specific indicators may raise self-worth and can lead to their willingness to attend professional development. The teachers’ self-worth information may help administrators implement and support those elements that contribute to teachers’ motivation for professional development. Administrators could assess the teacher’s self-worth by using the Thai version of contingencies of self-worth scale. In this study, the virtue indicator had high relative importance within contingencies of self-worth. For virtue, teachers whose scores were high in morality are those who follow their own moral/ethical principles. These teachers tend to have more desire to attend professional development regardless of their teaching experience. It is recommended that teachers recognize the importance of this indicator for being moral teachers and their presumed desire to engage in professional development.

Because motivation helps explain the reason for participating in voluntary professional development, learning about motivation can aid in identifying those teachers likely to attend professional development. Policy makers and program developers in an educational institute headquarters or in a development unit can benefit from information about the relative importance of teachers’ reasons for participating. This information can help in considering the long-term value of the program or the type of courses needed. This information could also help in proposing new models of professional development. Specifically, the responses from teachers in this study showed an interesting result.
Participating in order to improve teaching effectiveness and gain subject knowledge showed the highest relative importance in motivation for participating in voluntary professional development. Knowing these goals for professional development can help tailor teachers’ instruction and offer teachers sufficient opportunities to experience new and innovative methods of teaching. This result can lead program developers to rethink the development of the program functions. In summary, the educational organization, both schools and the department of education can cooperate to improve the education system and to make future changes in teaching practices based on teachers’ motivation. This is according to the Thailand 4.0 economic model which the model advocates developing the knowledge of workers that include educators and teachers through the education system (Department of International Economic Affairs Ministry of Foreign Affair, 2016).

Recommendations for Future Research

In this study, the quantitative method was employed through the use of a questionnaire. The majority of the questions were closed-ended questions that gained direct answer to very specific questions. To extend our understanding of the teachers’ motivation for participating in professional development, future research should add a qualitative method section to create a mixed methods design. For example, including focus group techniques to collect data would supplement survey techniques. Creswell (2012) claimed that mixed method research can create a research outcome stronger than either method individually.

A statistical recommendation relates to the error terms in the measurement model. Motivation for participating in the voluntary professional development and contingencies
of self-worth were correlated based on two decision rules. In future research, the being influenced person and learning myself as teacher indicators of motivation for participating in voluntary professional development may perform better if collapsed into a new indicator. Similarly, the competition and academic competence indicators of contingencies of self-worth may perform better if collapsed to a new indicator.

Additionally, as noted in the limitations of this study concerning the unequal number of participants in each group, future research should consider striving for an equal number of sample members in each group for structural equation model invariance analysis.

All participants were public school teachers who provided information about their motivation for participating in voluntary professional development and contingencies of self-worth. Future research could include teachers’ motivations and contingencies of self-worth from both public and private schools. Also, longitudinal methods could be used to follow-up with teachers involved in voluntary professional development about their need and motivation regarding future professional development. This could also provide insights about teacher performance related to what they experienced from the professional development participation.
APPENDIX A – IRB Approval Letter

NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the ‘Adverse Effect Report Form’.
- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 18070901
PROJECT TITLE: Voluntary Professional Development in Thailand: Teachers' Motivation, Professional Life Phase, and Self-Worth
PROJECT TYPE: New
RESEARCHER(S): Pongwai Fongkarta
COLLEGE/DIVISION: College of Education and Human Sciences
DEPARTMENT: Educational Research and Administration
FUNDING AGENCY/SPONSOR: N/A
IRB COMMITTEE ACTION: Expedited Review Approval
PERIOD OF APPROVAL: 07/03/2017 to 07/08/2019
Edward Gosnold, Ph.D.
Institutional Review Board
June 6, 2018

Dear Institutional Review Board Chair

The purpose of this letter is to confirm approval of Mr. Pongwat Fongkanta’s request to collect data from teacher participants in Lampang Rajabhat University Training Unit.

This is being granted by Lampang Rajabhat University pending approval of the IRB at the University of Southern Mississippi.

Sincerely,

Pratana Govittayangkull, Ph.D.
Dean of the Faculty of Education
Director of the Lampang Rajabhat University Training Unit
Email: Pratana.go@gmail.com
APPENDIX C – Instruments

คำชี้แจง

วัตถุประสงค์งานวิจัยนี้: เพื่อศึกษาความสัมพันธ์ของตัวบวกสังคมกับการรับรู้ในโปรแกรมการพัฒนาครูมืออาชีพและความสัมพันธ์ของตัวบวกสังคมกับการรับรู้คุณค่าของตัวเอง รวมทั้งวิเคราะห์เกณฑ์ด้านทฤษฎีในการเข้าร่วมโปรแกรมและการรับรู้คุณค่าของตัวเอง โดยใช้ระเบียบการอยู่ในอาชีพครูเป็นตัวแปรรับ

สอบถามข้อมูลเกี่ยวกับ:
ความคิดเห็น ประสบการณ์ในการเข้าร่วมโปรแกรมการพัฒนาครูมืออาชีพ รวมถึงการรับรู้คุณค่าของตัวเองและข้อมูลทั่วไป

สามารถหญุดตอบแบบสอบถามหรือข้อมูลคำถามที่ไม่ต้องการตอบได้หรือไม่:
แบบสอบถามฉบับนี้ได้ผ่านการตรวจสอบจากคณะกรรมการ Human Subjects Protection Review Committee หรือ Institutional Review Board ของ The University of Southern Mississippi ผู้ตอบแบบสอบถามสามารถหญุดตอบแบบสอบถามหรือข้อมูลคำถามในข้อคำถามที่ไม่ต้องการตอบได้ ทุกขณะระหว่างการตอบแบบสอบถาม

ระยะเวลาในการตอบแบบสอบถาม: ประมาณ 15 นาที

ผู้ร่วม: นายพงศ์กิจ ธงชัยพานิช ผู้ที่กำหนด นักศึกษาปริญญาเอก ภาควิชาวิจัยการศึกษาและการบริหาร คณะศึกษาศาสตร์และจิตวิทยา โดยมีอาจารย์ที่ปรึกษาวิทยานิพนธ์คือ Kyna Shelley, Ph.D. การบริวิจัยในครั้งนี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาโทปีที่ 3 สาขาวิจัยการศึกษา การประเมินผล สถิติและการวิจัย

สามารถตอบแบบสอบถามเพิ่มเติมได้จาก:
นายพงศ์กิจ ธงชัยพานิช pongwat.fongkanta@usm.edu และ ผู้ร่วมวิจัย Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406, USA, +1601-266-6820.

การปฏิบัติตามเป็นส่วนตัวของข้อมูลของท่าน: ข้อมูลส่วนตัวของท่านจะถูกปกปิดและไม่มีในการระบุชื่อของท่านในแบบสอบถาม แบบสอบถามจะถูกใช้ในสู่เก็บสถิติการวิจัยของควมผู้ตอบแบบสอบถามหรือข้อมูลเกี่ยวกับโปรแกรมให้เป็นไปตามเกณฑ์มหิดลใดๆ

การตอบแบบสอบถามอย่างเต็มที่:
ท่านจะได้รับโอกาสในการสะท้อนในเรื่องของการรับรู้คุณค่าของตัวเอง รวมถึงข้อมูลที่จะเป็นประโยชน์ต่อเพื่อนครูผู้บริหารและผู้ที่เกี่ยวข้องในการวางแผนการพัฒนาครู

สำหรับการยืนยันให้ความร่วมมือในการตอบแบบสอบถาม
ยืนยันให้ความร่วมมือในการตอบแบบสอบถามครับและเข้าใจในการตอบแบบสอบถามฉบับนี้
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<tr>
<th>ข้อความ</th>
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<tr>
<td>1.1 เมื่อฉันคิดว่าฉันเป็นคนดีสุดฉันจะรู้สึกดีในตัวฉัน</td>
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<td>1.2 การรับรู้คุณค่าในตัวเองมีพื้นฐานมาจากมโนปฏิบัติตนตามหลักศาสตร์ของฉัน</td>
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<td>1.3 ฉันรู้ว่ามีคุณค่า เมื่อฉันทำได้ดีเกินกว่าหน้าที่หรือทักษะของฉัน</td>
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<td>1.4 ความสามารถในตัวเองไม่เกี่ยวข้องกับความรู้สึกในรูปแบบตัวตน</td>
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<td>1.5 การรู้ว่าสิ่งที่ฉันทำกันมีคุณค่า ทำให้ฉันอยู่ดีและความนิ่มนวลในตนเอง</td>
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<td>1.6 ฉันไม่สนใจว่าคนอื่นมองฉันในวิธี (ทางที่ไม่ดี)</td>
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<td>1.7 การรับรู้ความรักที่ครอบครัวให้ ทำให้ฉันมีมุมมองในตัวฉัน</td>
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<td>1.8 ฉันรู้ว่ามีคุณค่า เมื่อฉันมีความยินดีในตัวตน</td>
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<td>1.9 ฉันไม่สามารถควบคุม บังคับ ตัดสินใจได้ ถ้าคนอื่นยินดีไม่เกี่ยวกับ บังคับ บังคับในตัวฉัน</td>
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<td>1.10 การรับรู้คุณค่าในตัวเองไม่มีอิทธิพลต่อความรู้สึกในตัวเอง</td>
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<td>1.11 เมื่อฉันรู้จักที่มีปฏิบัติตนอยู่ในศีลธรรมอันดี ความรู้สึกในตัวฉันจะเสื่อมสิ่งที่</td>
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<td>1.12 เมื่อฉันรู้จักที่มีปฏิบัติตนอยู่ในศีลธรรมอันดี ความรู้สึกในตัวฉันจะเสื่อมสิ่งที่</td>
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<td>1.13 การรับรู้ความรู้สึกไม่สามารถทำให้ฉันรู้ว่า ฉันจะทำให้คนคิด ไง</td>
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<td>1.14 ฉันไม่สามารถควบคุมตัวเองได้อาจฉันไม่ทำตามมติของสังคม</td>
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<td>1.15 ฉันไม่สนใจว่าคนอื่นคิดเกี่ยวกับฉันรู้ว่าอย่างไร</td>
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<td>1.16 เมื่อคนอื่นควบคุมสรุปเกี่ยวกับตัวฉัน การรับรู้คุณค่าในตัวเองก็จะสูญเสีย</td>
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<td>1.17 ถ้ามีคนอื่นควบคุมการที่ฉันมีอิทธิพลต่อความรู้สึกในตัวเอง</td>
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<td>1.18 ความภาคภูมิใจในตัวเองจะด้อยค่าต่อกันหรือไม่ มีหลักฐานที่อ้างอิง</td>
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<td>1.19 การปฏิบัติงานไม่คิดในโรงเรียน ทำให้นักเรียนเกิดความเสื่อมในตัว</td>
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<td>1.20 นักเรียนทำให้เกิดความรู้สึกต่ำตน</td>
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<td>1.21 การให้ความคิดเห็นในสิ่งต่างๆจะแสดงถึงมีความรู้สึกว่าตัวเองมีสิ่งที่ดี</td>
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<td>1.22 นักเรียนมีความคิดเห็นว่าตัวเองมีสิ่งที่ดี</td>
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<td>1.23 นักเรียนมีความรู้สึกต่ำตน หรือไม่ มีสิ่งที่แสดงความคิด</td>
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<td>1.24 การให้ความคิดเห็นในสิ่งต่างๆจะแสดงถึงมีความรู้สึกว่าตัวเองมีสิ่งที่ดี</td>
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<td>1.25 การให้ความคิดเห็นในสิ่งต่างๆจะแสดงถึงมีความรู้สึกว่าตัวเองมีสิ่งที่ดี</td>
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<td>1.26 การให้ความคิดเห็นในตัวเองจะแสดงถึงมีความรู้สึกว่าตัวเองมีสิ่งที่ดี</td>
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<td>1.27 การให้ความคิดเห็นในตัวเองจะแสดงถึงมีความรู้สึกว่าตัวเองมีสิ่งที่ดี</td>
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<td>1.28 การให้ความคิดเห็นในตัวเองจะแสดงถึงมีความรู้สึกว่าตัวเองมีสิ่งที่ดี</td>
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<td>1.29 การให้ความคิดเห็นในตัวเองจะแสดงถึงมีความรู้สึกว่าตัวเองมีสิ่งที่ดี</td>
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<td>1.30 การให้ความคิดเห็นในตัวเองจะแสดงถึงมีความรู้สึกว่าตัวเองมีสิ่งที่ดี</td>
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<td>1.31 การให้ความคิดเห็นในตัวเองจะแสดงถึงมีความรู้สึกว่าตัวเองมีสิ่งที่ดี</td>
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<td>1.32 การให้ความคิดเห็นในตัวเองจะแสดงถึงมีความรู้สึกว่าตัวเองมีสิ่งที่ดี</td>
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<td>1.33 การให้ความคิดเห็นในตัวเองจะแสดงถึงมีความรู้สึกว่าตัวเองมีสิ่งที่ดี</td>
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<td>1.34 การให้ความคิดเห็นในตัวเองจะแสดงถึงมีความรู้สึกว่าตัวเองมีสิ่งที่ดี</td>
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<td>1.35 การให้ความคิดเห็นในตัวเองจะแสดงถึงมีความรู้สึกว่าตัวเองมีสิ่งที่ดี</td>
<td>1</td>
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<td>6</td>
<td>7</td>
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</tr>
</tbody>
</table>
2. โปรดให้ระดับความสำคัญของเหตุผลในการเข้าร่วมการพัฒนาครูโดยอาศัย ได้หัวข้อจึงหมายถึง X ลงในช่องว่างที่ตรงกับระดับความคิดเห็นของท่าน จาก 1 หมายถึง ไม่มีความสำคัญเลย ถึง 7 หมายถึง สำคัญมากที่สุด

<table>
<thead>
<tr>
<th>ผู้เข้าร่วมทั้งหมด</th>
<th>ไม่สำคัญเลย&lt;----------------------------&gt;สำคัญมากที่สุด</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 ได้พัฒนาความรู้เกี่ยวกับการจัดการเรียนการสอนที่มีประสิทธิภาพ</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>2.2 สร้างเครือข่าย ชุมชนการเรียนรู้ระหว่างเพื่อนครู และผู้เข้าร่วมการศึกษา</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>2.3 เพิ่มพูนความรู้ในสาขาวิชาที่สอน</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>2.4 เพิ่มให้ผู้เรียนรู้จักประยุกต์ใช้สาขาวิชาที่สอน</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>2.5 ให้ผู้เข้าร่วมมีการพัฒนาบนงาน</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>2.6 เพื่อจะนำไปสู่เป้าหมายที่สำคัญ เช่น ตัวแทนรัฐวิสาหกิจ</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>

3. เพศ  □ 1) ชาย □ 2) หญิง

4. อายุ
   □ 1) ไม่ถึงกว่า 26 ปี  □ 2) 26-35 ปี  □ 3) 36-45 ปี
   □ 4) 46-55 ปี  □ 5) มากกว่า 55 ปี

5. ระยะเวลาในการสอน ตั้งแต่เริ่มต้นถึงปัจจุบัน _________ ปี

6. ระดับชั้นที่สอน
   □ 1) ประถมศึกษา □ 2) มัธยมศึกษา

7. ระดับการศึกษาสูงสุด
   □ 1) ค่าปรับปรุงมาตรฐาน □ 2) ปรับปรุงมาตรฐาน □ 3) ปรับปรุงโทษ
   □ 4) ปรับปรุงแบบ

8. ตำแหน่ง
   □ 1) ครูชั้นเรียน □ 2) ค.ศ.1 □ 3) ค.ศ.2 (ครูชั้นเรียนการศึกษา)
   □ 4) ค.ศ.3 (ครูชั้นเรียนการพัฒนา) □ 5) ค.ศ.4 (ครูชิ้นเรียนภาษา) □ 6) ค.ศ.5 (ครูชั้นเรียนภาษาพิเศษ)

ขอขอบคุณที่ท่านให้ความร่วมมือในการตอบ
Information Sheet

What is the project about? The purpose of this study is to validate the relative importance of indicators that contribute to teachers’ motivation for participating in voluntary professional development as well as the relative importance of those indicators. Additionally, it seeks to determine the relationship of these indicators that contribute to teacher participation with self-worth. Also, it will examine in what way professional life phase may be related to indicators importance and self-worth.

What will you ask me to do? For this study, you will be asked to complete a brief questionnaire regarding your experiences in the professional development about the reasons for participating, self-worth, and demographics.

Will the questions make me feel uncomfortable? The Institutional Review Board at the University of Southern Mississippi has reviewed the questions. They think you can answer them comfortably. However, you have the freedom to skip questions or withdraw your participation at any time.

How much time do I need? The length of your participation in this study will be approximately 15 minutes.

Who is running the study? Pongwat Fongkanta, a doctoral student in the Department of Educational Research and Administration (College of Education and Human Sciences) is conducting the study under the supervision of Kyna Shelley, Ph.D. This study is being conducted in accordance with the requirements for the degree of Doctor of Philosophy in Education emphasis in Research, Evaluation, Statistics, and Assessment.

If I have questions, who can I ask? You can reach Pongwat by email (pongwat.fongkanta@usm.edu) at any time should you have questions about the study. This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6820.

Are you going to protect my privacy? Of course! All personal information is strictly confidential, and will be anonymous. The questionnaire will not contain your name and all data will be locked in a cabinet or on a secure computer. Only the investigators will have access to your responses for the purpose of analysis during and after the study. Once complete, the responses you provided will be completely deleted.

How will participating in this study benefit me? Participating in this study will afford you the opportunity to reflect on own self-worth and could possibly benefit to teacher society and administrator, and also policy maker in the education system.

By agreeing to participate, I understand the nature of the study, my rights as a participant in this study, and that all questions concerning participation have been answered.
Questionnaire

1. Please respond to each of the following statements by marking your answer in the box using the scale from “1 = Strongly disagree” to “7 = Strongly agree.” (If you haven’t experienced the situation described in a particular statement, please answer how you think you would feel if that situation occurred.)

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Disagree Somewhat</th>
<th>Neutral</th>
<th>Agree Somewhat</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>When I think I look attractive, I feel good about myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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<tr>
<td>1.2</td>
<td>My self-worth is based on religious belief.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>1.3</td>
<td>I feel worthwhile when I perform better than others on a task or skill.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>1.4</td>
<td>My self-esteem is unrelated to how I feel about the way my body looks.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>1.5</td>
<td>Doing something I know is wrong makes me lose my self-respect.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>1.6</td>
<td>I don’t care if other people have a negative opinion about me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>6</td>
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<tr>
<td>1.7</td>
<td>Knowing that my family members love me makes me feel good about myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
<td>6</td>
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<tr>
<td>1.8</td>
<td>I feel worthwhile when I have religion.</td>
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<td>2</td>
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<td>1.9</td>
<td>I can’t respect myself if others don’t respect me.</td>
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<td>2</td>
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<td>6</td>
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<tr>
<td>1.10</td>
<td>My self-worth is not influenced by the quality of my relationships with my family members.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>1.11</td>
<td>Whenever I follow my moral principles, my sense of self-respect gets a boost.</td>
<td>1</td>
<td>2</td>
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<tr>
<td>1.12</td>
<td>Knowing that I am better than others on a task raises my self-esteem.</td>
<td>1</td>
<td>2</td>
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<tr>
<td>1.13</td>
<td>My opinion about myself isn’t tied to how well I do in school.</td>
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<td>2</td>
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<tr>
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<td>Statement</td>
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<td>1.14</td>
<td>I couldn’t respect myself if I didn’t live up to a moral code.</td>
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<td>1.15</td>
<td>I don’t care what other people think of me.</td>
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<td>1.16</td>
<td>When my family members are proud of me, my sense of self-worth increases.</td>
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<tr>
<td>1.17</td>
<td>My self-esteem is influenced by how attractive I think my face or facial features are.</td>
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<td>1.18</td>
<td>My self-esteem would suffer if I didn’t have religion.</td>
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<tr>
<td>1.19</td>
<td>Doing well in school gives me a sense of self-respect.</td>
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<tr>
<td>1.20</td>
<td>Doing better than others gives me a sense of self-respect.</td>
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<td>1.21</td>
<td>My sense of self-worth suffers whenever I think I don’t look good.</td>
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<td>1.22</td>
<td>I feel better about myself when I know I’m doing well academically.</td>
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<tr>
<td>1.23</td>
<td>What others think of me has no effect on what I think about myself.</td>
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<td>1.24</td>
<td>When I don’t feel loved by my family, my self-esteem goes down.</td>
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<tr>
<td>1.25</td>
<td>My self-worth is affected by how well I do when I am competing with others.</td>
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<td>1.26</td>
<td>My self-esteem goes up when I feel that religious belief with me.</td>
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<td>1.27</td>
<td>My self-esteem is influenced by my academic performance.</td>
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<td>1.28</td>
<td>My self-esteem would suffer if I did something unethical.</td>
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<td>1.29</td>
<td>It is important to my self-respect that I have a family that cares about me.</td>
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</tbody>
</table>
2. Please rate how important each of reason is for your participation in professional development by marking from 1 means Not at all important to 7 means Very important.

<table>
<thead>
<tr>
<th>I participated because....</th>
<th>Not at all importance</th>
<th>Low importance</th>
<th>Slightly important</th>
<th>Neutral</th>
<th>Moderately important</th>
<th>Very important</th>
<th>Extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Learning more about how to teach more effectively</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>2.2 Building a learning community (sharing with colleagues, social network)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>2.3 Gaining subject area knowledge</td>
<td>1</td>
<td>2</td>
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<td>4</td>
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<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I participated because....</td>
<td>Not at all importance</td>
<td>Low importance</td>
<td>Slightly importance</td>
<td>Neutral importance</td>
<td>Moderately important</td>
<td>Very important</td>
<td>Extremely important</td>
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<tr>
<td>2.4 Being influenced by a significant person, teacher, or mentor</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>2.5 Learning more about myself (i.e. my strengths as a teacher)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>2.6 Leading me to achieve the important goal (i.e. Professional growth ranking)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

3. What is your gender?  □ 1) Male    □ 2) Female

4. What is your age?

 □ 1) Less than 25 years    □ 2) 25-35 years    □ 3) 36-45 years

 □ 4) 46-55 years    □ 5) More than 55 years

5. How many years teaching experience do you currently have? ________ year(s)

6. What grade level do you teach?

 □ 1) Primary    □ 2) Secondary

7. What is the highest level of education you have completed?

 □ 1) Lower than Bachelor's degree    □ 2) Bachelor's degree

 □ 3) Master's degree    □ 4) Doctorate degree

8. What is your academic ranking?

 □ 1) Assistant    □ 2) Practitioner level    □ 3) Professional level

 □ 4) Senior professional level    □ 5) Expert level    □ 6) Advisory Level

Thank you for your participation

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REFERENCES


handbook on the continuing professional development of teachers (pp. 146–166).

Berkshire, UK: Open University Press.


https://doi.org/10.1080/135406002100000512


https://doi.org/10.1177/1541344611430688


https://doi.org/10.1080/19415257.2010.523955

Ingvarson, L. (1998). Professional development as the pursuit of professional standards:
The standards-based professional development system. Teaching and Teacher Education, 14(1), 127–140.


https://doi.org/10.1057/palcomms.2015.2


https://doi.org/10.1016/j.lindif.2014.08.001


https://doi.org/10.1177/0013164409355692


https://doi.org/10.1177/0022487116687551


https://doi.org/10.1016/S0742-051X(02)00101-4


https://doi.org/10.1080/00228958.2006.10516448


https://doi.org/10.1016/j.tate.2017.04.004


https://doi.org/10.1080/0022027032000148298


professional development and the influence of social presence and sociability.


https://doi.org/10.1111/j.1467-8535.2011.01223.x


Retrieved from https://principlesoflearning.wordpress.com


https://doi.org/https://doi.org/10.5993/AJHB.42.1.4 S


https://doi.org/10.1006/ceps.1999.1015


