

TEACHER MOTIVATION AND TEACHING STRATEGIES IN PHYSICAL EDUCATION AMONG PRIMARY SCHOOL IN SOUTHERN THAILAND.

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ABSTRACT

Teacher motivation is the key factor to physical education teaching in primary school. However, found that the teacher without motivation for teaching and ignore their class. Furthermore, physical education teachers focus on teaching sports for competition and unable to create the new teaching method and affect low effective teaching. Thus, objectives of this study need to investigate the relationship between teacher motivation and teaching strategies. Survey design was adapted for collect data. The respondents include primary school teachers in Southern Thailand amount 258 teachers. The statistical were used descriptive analysis and examined the relationship in the data analysis. This study found that there is a significant relationship between external, identified, and intrinsic motivation with teaching strategies, However, there is no significant relationship between introjected motivation and teaching strategies. This study as empirical evident and contributed the teacher to increase motivation for teaching to develop the greater effective physical education teaching.

KEYWORDS: Teacher Motivation; Physical Education Teacher; Teaching Strategy.

1 INTRODUCTION

Some diseases such as obesity can be prevented by exercise (Booth et al., 2012; Wang et al., 2017), which students must recognize and acknowledge to enable them to realize the benefits of exercise, physical education taught in schools covered it. Physical education is essential to all students because it helps to develop a student's physical, mental, social, emotional and intelligent (Stark, 2017). Even though physical education is crucial to all aspects of life, however, some countries still do not prioritize and ignore physical education in schools such as North Africa and Asia countries have reduced physical education's time allocation for the global physical education curriculum in

schools. Besides, providing insufficient facilities and equipment for physical education classes (Hardman & Marshall, 2014). These issues negatively affect the effective teaching of physical education teachers.

In Thailand, the Ministry of Education provides The Basic Education Core Curriculum for all students. Physical education is one of the eight learning areas of this curriculum [Office of the Basic Education Commission (OBEC), 2008]. All students are compulsory to study physical education since kindergarten until high school for the sake of their well-being and health, and as a way to promote healthy habits and avoid obesity among school children. This is because physical education aims to students exercise and participate in physical activities, game or sports in daily life (OBEC, 2008). Thus, physical education teachers are the most influential factor that will impart the various knowledge in order to develop the students base on the objectives of physical education subject in school (Alsubaie, 2016). Specifically, physical education teachers who are teaching in primary school necessary to teaching in this subject on the right way for paves the foundation of physical education knowledge correctly. This is because of the good basis movement and knowledge of the students are important to the next education level (Ko, 2016).

Several factors influence the improvement and higher effectiveness of physical education teaching. One of the main factors is teacher motivation. According to Tulyakul et al. (2018), motivation for teaching is a key influence and has a positive relationship with teaching effectiveness. A teacher who lacks motivation leads to ineffective teaching (Muranda et al., 2015; UNESCO, 2015). Furthermore, Ofoegbu (2004) argues that teacher motivation is an essential element for an effective classroom. Also, it is from Ofoegbu the results confirmed that most of the respondents agreed that teacher motivation is a necessary element in determining classroom effectiveness. Furthermore, motivation as stated by Bhoje (2015), will result in the enhancement of energy as well as the effort to teach. Therefore, encouraging and interested teachers are important in providing effective education (Hornstra et al., 2015).

Nevertheless, the Secretariat of Education (2010a; 2010b; 2010c) found that the Thai teachers were ineffective teaching, had truancy problems, and lacks the motivation to work. Moreover, physical education teachers disregard their classroom because they focus on upgrading their position and salary (Kwanboonchan, 2015). They hardly had the incentive to teach. Hence, it is a challenge to investigate their motivation for teaching because high motivation positively affects effective teaching and motivated teachers (UNESCO, 2015).

Not only does teacher motivation affect physical education teaching but teaching strategies are very important to develop greater effectiveness in the imparting physical education knowledge to their

students. According to Husain et al. (2015), teachers who can create their teaching methods are effective teachers. Moreover, Kyrgiridis et al. (2014) argue that teaching strategies can help evaluate the effectiveness of physical education teaching. Also, teachers reflect on the effectiveness of their lessons and adjust their teaching practice whenever necessary to improve the instructions they give to students (Ko, 2016). On the other hand, it has been found that physical education teachers in primary schools still focus on developing sports skills for competition (Mai-eam, 2003). Additionally, Nampai (2015) also found that the physical education teacher unable to create fun activities and may lead to low students' interest and participation in their physical education classes.

Unfortunately, empirical studies that investigate the relationship between teacher motivation and teaching strategies are limited. Therefore, it is necessary to study the relationship between teacher motivation and teaching strategies in physical education classes among physical education teachers in Southern Thailand, in order to improve the effective physical education teachers and the efficiency of students' learning in Thailand.

2 LITERATURE REVIEW

2.1 Motivation for teaching

The issue of teacher motivation deserves specific study due to the character of the instructor is importance either in the lives of individual students and in the greater society (Stirling, 2014; UNESCO, 2015). Similarly, motivation also can increase cognitive process. According to Kong (2014), motivation can usually influence what and how the information is processed. Furthermore, motivation as stated by Bhoje (2015) will result in the enhancement of energy as well as the effort to do things. In the same vein, Suhag et al. (2016) assert that motivation can intensify the commencement and perseverance of events. For example, a teacher continues with teaching his students during his free time and tries to perform other activities concerning his job. Thus, it is essential to study the motivation for teaching because low motivation and ineffective teachers affect teaching negatively.

2.2 Self-Determination Theory (Deci and Ryan, 1985)

Self-Determination Theory (SDT) is a theory of human motivation in the organismic or humanistic tradition (Deci and Ryan, 1985). It is suggested that there are three keys principal in SDT namely; Amotivation, extrinsic motivation and intrinsic motivation (Figure1). All of these are influential forces in molding individual motivation and how they carry on with it (Deci and Ryan, 2008). Conversely, the human unable driven by only one kind of motivation but we have varieties of desires, need, and purposes about what we want. Instead of thinking regarding motivation as being

at one polar stop or the other, it is valuable to think of it as a continuum from un self-determined to self-determined (Furlong, 2003).

		<i>Non self-determined</i>				<i>Self-determined</i>
		Amotivation	Extrinsic Motivation			Intrinsic Motivation
Regulatory style:	Non-Regulation	External Regulation	Introjected Regulation	Identified Regulation	Integrated Regulation	Intrinsic Regulation
Source of motivation:	Impersonal	External	Somewhat external	Somewhat internal	Internal	Internal
Motivation regulators:	No intention Incompetence Lack of control	Compliance External rewards or punishments	Ego-involvement Approval from others	Valuing an activity Endorsement of goals	Congruence Synthesis with self	Interest Enjoyment Inherent satisfaction

Figure1. The Self-Determination Continuum Showing Types of Motivation with Their Regulatory Styles, Loci of Causality, and Corresponding Processes (Deci and Ryan, 1985).

Figure1 exhibited the overall of SDT continuum that shows the types of motivation and their regulatory styles. There are several main point of this figure as follows:

Firstly, the right end of the figure shows that there is an intrinsic motivation which consist of one regulator; that is intrinsic regulation. The *intrinsic regulation* is driven by internal reason, and when he or she does something it is purely because interest, happy and enjoyment (Deci and Ryan, 2008; Hagger and Chatzisarantis, 2007). Moreover, Filimonov (2017) stated that when people are motivated intrinsically, incentives and punishments are not really needs because what they are doing is already a reward for them for example, the teacher feels motivated to teaching due to enjoying and happy when their working in the classroom (enjoying and happy are reward). Secondly, there are elements of extrinsic motivation in the middle of figure namely; (a) *External regulation*, in which the motivation that to get the reward, praise or avoid the punishments when to do something such as the teachers working because get the extra money and unwanted the school directors punishments if they no teaching (Deci and Ryan, 2008;). (b) *Introjected regulation* which next to the external regulation, the individual who has this regulation inspires an individual to enact a behavior is do something because if not do, will fear and shame (Anderson, 2016). For example, the teacher is working because she would feel ashamed of herself if she did truancy. (c) The next, *identified regulation* refer to behavior that acknowledges and recognize in their activities (Ryan and Deci, 2000). The teacher is working because she believed that teaching is essential for her. (d) The *integrated regulation* is the person is beginning to be inspired through intrinsic sources and want to be self-aware and act in congruence with his or her core values and feel of self (Hagger and Chatzisarantis, 2007; Ryan and Connell, 1989). Lastly, the left end of the figure shows that there is

amotivation, in which a person there is no autonomous, without pressure to communicate of, lack of control and is probably struggling to have any of their wishes met (Deci and Ryan, 2008). Amotivation is for those who lack of intentionality and personal causation toward action (Hagger and Chatzisarantis, 2007). Moreover, amotivated behavior can be occur in situations where individuals are neither intrinsically and extrinsically motivated (Vallerand et al., 1992).

2.3 Autonomous Motivation for Teaching (Roth et al., 2007) adapted from The Self-Determination Theory (Deci and Ryan, 1985)

The Roth et al. (2007) autonomous motivation for teaching is adapting the SDT framework which has two dimension that is autonomous and controlled motivation. The autonomous motivation for teachers used all the SDT regulations motivation (intrinsic, external, introjected and identified regulation), except amotivation and integrated regulation. This is because an amotivation was not counted because it is not considered autonomous neither controlled motivation. In terms of the integrated was regulation was not examined because previous study by (e.g., Blais et al., 1993; Pelletier et al., 2002; Roth et al., 2007; Ryan and Cornell, 1989) did not distinguish between *identified* and *integrated regulations*. (Figure 2).

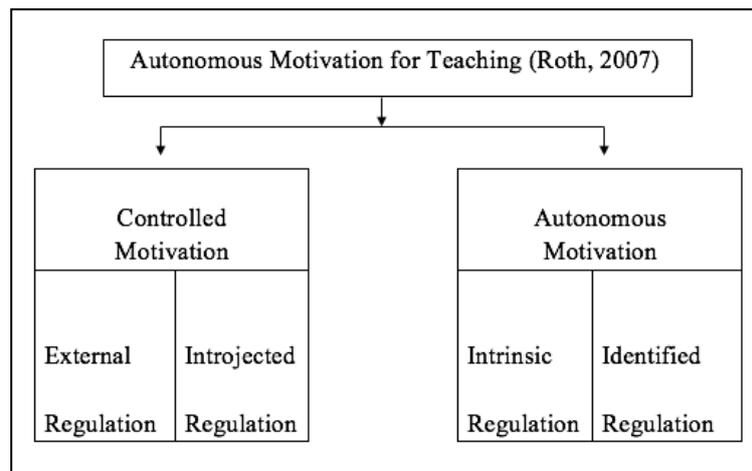


Figure 2. Autonomous Motivation for teaching (Roth et al., 2007)

Based on the figure 2. the Roth et al. (2007) *Autonomous Motivation for Teaching* consist of autonomous and controlled motivation. In particular, the autonomous motivations are intrinsic and identified regulation, whereas in controlled motivations are external and introjected regulations. There are differences between autonomous and controlling forms of motivation. This difference is sometimes perceived by reflecting and looking at the basis or root of the behavior of individuals in a given situation (Legault, 2017). According to Roth (2014) autonomous motivation refer to behaviors implemented with a feel of commitment and select. It includes two dimensions namely; intrinsic and identified regulation. In term of *intrinsic regulation*, people perform an activity because it is

essentially motivating; therefore, internalization is not needed. While *identified regulation*, people have already identified with an activity's importance, and perform the behavior which is rather autonomously (Roth, 2014). Overall, autonomous motivation characterizes instructors who invest efforts because of interest, pleasure, or the value they attribute to that effort (as related to teachers'/students' development and well-being) (Roth et al., 2007). Furthermore, Matos et al. (2018) state that, autonomous motivation for teaching promotes autonomy-supportive teaching in various ways. Firstly, teachers who are motivated autonomously have expertise and knowledge in their specific field and the method they are using. Secondly, they fully understand autonomous motivation and its benefits. Lastly, the teachers are very resilient when it comes to achieving or overcoming pressure, are not concerned with their image, and favor supportive teaching methodology.

On the other hand, controlling motivation opposes intrinsic motivation in the self-determination continuum. It engages in the behavior induced by external reinforcement such as obtaining a reward or avoiding punishment (Ryan and Deci, 2000). Parallel external regulation lies introjected regulation which reflects behavioral engagement induced by perceived internal pressures for instance, avoiding shame or guilt or gaining contingent self-worth or pride (Wouters et al., 2016). The location of the motivational types on the continuum is similar to the place of teaching styles on the continuum reflecting the levels of autonomous behavior and decision-making process (Hein et al., 2012). Moreover, Roth's (2014) controlled motivation refer to behaviors performed with a sense of pressure or compulsion. It includes two dimensions namely; external and introjected regulation. In term of external regulation, behavior is controlled by outside reward and punishment contingencies, where very little internalization take place. The behavior is maintained only in the presence of the controlling human for example a father, coach, or manager. Introjected regulation is a superficial dimension of internalization, where one takes on the externally expected behaviors' value and regulation but does not agree them as one's own. Here, with a sense of inner compulsion, humans impose on themselves these same contingencies of approval or really worth that the controlling character had in the past imposed on them (i.e., When I try to find interesting subjects and new ways of teaching, I do so because I think it is a shame to keep on teaching in the same way all the time.) (Roth et al., 2007).

2.4 Teaching strategies

Skilled and experienced physical education teachers utilize highly effective teaching practices to instruct and motivate their students. Such teachers are characterized by their strong passion for teaching, mastery of subject matter, and expert knowledge of physical education pedagogy (Fraker,

2018). Furthermore, Hénard and Roseveare (2012) suggest that teachers establish high expectations for their students and are committed to produce mature, responsible, independent learners who are capable of leading healthy and physically active lives as well as lifelong wellness. Teachers engage students in purposeful and developmentally appropriate activities. This is to say, teachers encourage maximum participation and support students' success within a positive learning environment (Hensley-Pipkin, 2015). Teachers reflect on the effectiveness of their lessons and adjust their teaching practice whenever necessary to improve the instructions they give to students (Ko, 2016). Additionally, Garza et al. (2014) pose that accomplished teachers ensure students' success by focusing their instructions on students' individual needs and interests. Besides, teachers also demonstrate care and concern for each student. Teachers vary their pedagogical approach strategically to provide students with authentic connections to their content area (Paterson et al., 2018). Physical educators collaborate with teachers from other disciplines to create a wide range of learning experiences for their students, inside and out of the classroom (Kohl III and Cook, 2013). Beni et al. (2017) state that accomplished teachers should create authentic learning experiences that help and motivate students to apply healthy lifestyle concepts beyond the physical education classroom. For example, teaching students to inline skate may seem more valuable when the lessons are moved from the gym to community bike trails, skating parks, or a skating rink. In addition, accomplished teachers inspire students to become involved in the learning process and create a healthy vision for themselves (Dişlen et al., 2013). In particular, teachers may for instance ask students to design personal pyramids of daily physical activity based on their own interests, skill competence, and wellness goals. Accomplished teachers encourage individual effort and facilitate cooperative learning so that students can meet their personal goals while contributing to their classmates' educational outcomes (Johnson et al., 2014). Egeberg et al. (2016) accentuate that accomplished physical education teachers should utilize effective teaching practices and employ positive behavioral management strategies during classroom experience. As mentors, such teachers develop meaningful relationships with their students to help them overcome difficulties, accept challenges, and achieve previously unattainable goals. Accomplished teachers demonstrate skill and creativity when using instructional tools to target students with varied learning styles including visual, auditory, read-write, or kinesthetic. This thereby supports effective instructions to all students (Gentry, 2013). physical education teachers thoughtfully determine which approach will assist each student in the most productive way. They differentiate certain instructions to ensure participation and encourage student success at all levels (Whipp et al., 2014).

Bevans et al. (2010) suggest that physical education teachers should employ local resources to engage students in different learning experiences. The teachers may thus conduct a class session at a public golf course. They could also encourage students to participate in a regional fun run. Through physical education associations, alliances, and initiatives, teachers connect their students with other learners worldwide. As a result, students will become more involved in effective and creative programs sponsored by the larger health and fitness community. Moreover, accomplished teachers use different educational strategies and settings in an attempt to motivate and encourage students to participate in challenging physical activities (Eather et al., 2013).

3 OBJECTIVES OF STUDY

This study aims to examine the relationship between teachers' motivation and physical education teaching strategies among physical education teachers in Southern Thailand. The study will also focus on the dimensions of teachers' motivation aspects, namely external, introjected, identified, and intrinsic regulation toward physical education teaching strategies.

4 RESEARCH HYPOTHESES

Ho 1: There is no significant relationship between external regulation and teaching strategies.

Ho 2: There is no significant relationship between introjected regulation and teaching strategies.

Ho 3: There is no significant relationship between identified regulation and teaching strategies.

Ho 4: There is no significant relationship between intrinsic regulation and teaching strategies.

5 METHODOLOGY

5.1 Study Design

Research design is defined as the plan that explains how the research is conducted which usually contains elements such as purpose of study, type of investigation, unit of analysis and time horizon of study (Creswell, 2013). This study adapted survey design. The instruments of this study include two questionnaires to collect data in relation to the objectives of the present investigation.

5.2 Data Collection Method

This study used personally administered questionnaires to collect data. A total of 298 teachers from the teacher who teaching in physical education class at large government primary schools in Southern Thailand responded to the questionnaires, all of which were returned 269 sets (90.26%) of questionnaires were completed and the questionnaire not returned 29 sets (9.37%). Meanwhile, 11 sets (3.69%) had problems. Thus, the questionnaires were retained and completed = 258 sets (86.57%)

Table 1

Table 1 Response rate of the questionnaire

<i>Response</i>	<i>Frequency/Rate</i>	<i>Percentage</i>
Distributed questionnaires	298	100%
Returned questionnaires	269	90.26%
Questionnaire not returned	29	9.73%
Incomplete questionnaires	0	0
Rejected due to unreliable	11	3.69%
Retained questionnaires	258	86.57%

5.3 Study Instruments

Two questionnaires were used to collect data in this study. The Autonomous Motivation for Teaching Questionnaire (AMTQ) adapted from Roth et al. (2007) was employed to collect data on the teacher motivation aspect. Likewise, the Self-Evaluation Teacher Effectiveness Questionnaire in Physical Education (SETEQ-PE) was adapted from Kyrgiridis et al. (2014) which was used to collect data on teaching strategies.

Table 2 Teacher motivation detail.

<i>No.</i>	<i>Question Details</i>
External Regulation	
1	When I devote time to individual talks with students, I do so because I want the parents to appreciate my knowledge and familiarity with their children.
2	When I try to find interesting subjects and new ways of teaching, I do so because I want the parents to be satisfied so they won't complain.
3	When I invest effort in my work as a teacher, I do so because I do not want the principal to follow my work too closely.
4	When I invest effort in my work as a teacher, I do so in order to prevent disruptions and discipline problems during the lessons.
Introjected Regulation	
5	When I try to find interesting subjects and new ways of teaching, I do so because I think it is a shame to keep on teaching in the same way all the time.
6	When I invest effort in my work as a teacher, I do so because if I do not invest enough I would feel ashamed of myself.
7	When I invest effort in my work as a teacher, I do so because otherwise I would feel guilty.
8	When I devote time to individual talks with students, I do so because it makes

me feel proud to do this.

Identified Regulation

- 9 When I try to find interesting subjects and new ways of teaching, I do so because it is important for me to keep up with innovations in teaching.
- 10 When I devote time to individual talks with students, I do so because I can learn from them what happens in the classroom.
- 11 When I invest effort in my work as a teacher, I do so because it is important for me to make children feel that I care about them.
- 12 When I invest effort in my work as a teacher, I do so because it is important for me to feel that I help people.

Intrinsic Regulation

- 13 When I try to find interesting subjects and new ways of teaching, I do so because it is fun to create new things.
- 14 When I invest effort in my work as a teacher, I do so because I enjoy finding unique solutions for various students.
- 15 When I invest effort in my work as a teacher, I do so because I enjoy creating connections with people.
- 16 When I devote time to individual talks with students, I do so because I like being in touch with children and adolescents.

(Source: Roth et al., 2007)

Table 3 Teaching Strategies Detail.

No.	Question Details
17	Do you communicate with the students using clear and concise speech, rhythm, signs-gestures?
18	Do you employ student-centered teaching styles (e.g., exploration, problem solving, etc.) according to learning objectives and student need?
19	Apart from partial and whole practice, do you employ methods of group/random, constant/varying practice?
20	Do you use a wide variety of media (e.g., tables, poster, music, cards)?

(Source: Kyrgiridis et al., 2014)

5.4 Data Analysis

The data collected from the respondents were analyzed using two statistical software, namely Statistical Package for Social Sciences (SPSS) version 23 used for descriptive analysis and the Partial Least Square-Structural Equation Modeling (PLS-SEM) version 3 which was used in examining the formation of reflective measurement model and structural equation model.

Table 4 Frequency and Percentage of Respondents based on Gender, Age, Name of Academic Majors, Teaching Experience.

<i>Profile</i>	<i>Factors</i>	<i>Frequency</i>	<i>Percentage</i>
Gender	Total	258	100 %
	- Male	203	78.7%
	- Female	55	21.3%
Age	Total	258	100%
	- Less than 25	15	5.8%
	- 26 to 35	73	28.3%
	- 36 to 45	86	33.3%
	- More than 46	84	32.6%
Academic Major (Bachelor's degree)	Total	258	100%
	- Physical Education	171	66.3%
	- Sport Science	30	11.6%
	- Health Education	8	3.1%
	- Elementary Education	11	4.3%
	- Other	38	14.7%
Teaching Experience	Total	258	100%
	- Less than 2 years	34	13.2%
	- 3 to 6 years	40	15.5%
	- 7 to 10 years	53	20.5%
	- 11 to 14 years	40	15.5%
	- More than 15 years	91	35.3%

6 FINDING

6.1 Assessment of Measure Model

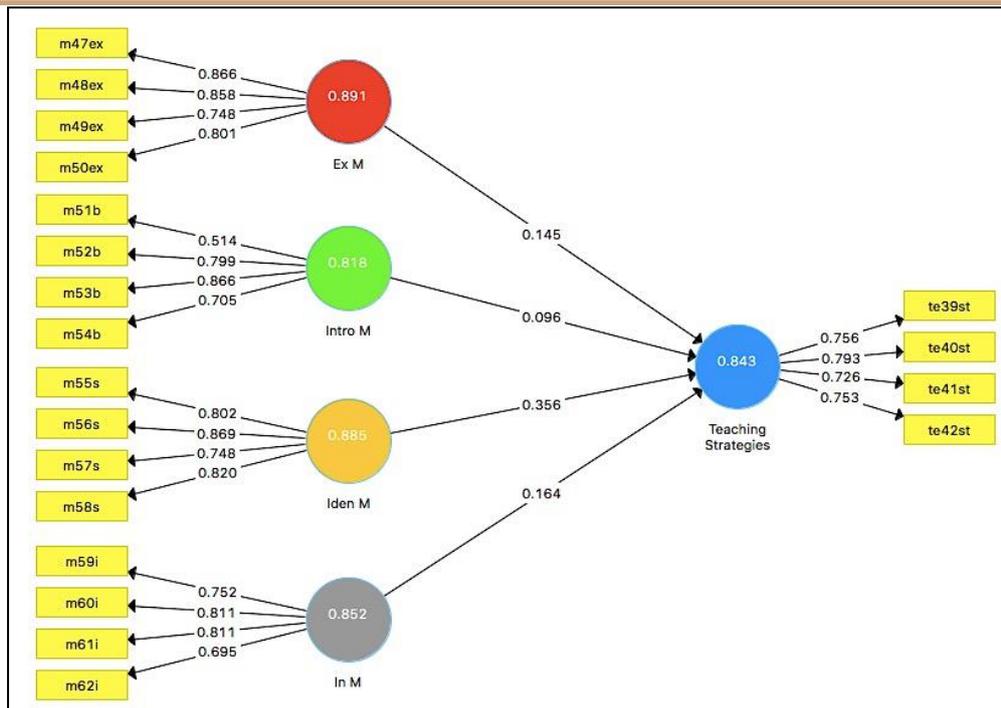


Figure 3. Measurement model using PLS-SEM algorithm.

Model 1

6.2 Assessment Model Analysis Result

Figure 3 demonstrates the results of the analyzed data in assessment model. In terms of the evaluated data based on the measurement model, there are four processes to assess, namely internal consistency reliability, reliability of indicators based on external loading values, ascertaining convergent validity, and discriminant validity.

Table 5 Summary of Standardized Loading, Composite Reliability (CR), and Average Variance Extracted (AVE)

Construct	Indicators	Loading	Composite Reliability	Average Variance Extracted (AVE)	Convergent validity
Ex M	m47ex	0.866	0.891	0.672	Yes
	m48ex	0.858			
	m49ex	0.748			
	m50ex	0.801			
Intro M	m51b	0.514	0.818	0.537	Yes
	m52b	0.799			

	m53b	0.866			
	m54b	0.705			
Iden M	m55s	0.802	0.885	0.658	Yes
	m56s	0.869			
	m57s	0.748			
	m58s	0.820			
In M	m59i	0.752	0.852	0.591	Yes
	m60i	0.811			
	m61i	0.811			
	m62i	0.695			
Teaching Strategies	te39st	0.756	0.843	0.574	Yes
	te40st	0.793			
	te41st	0.726			
	te42st	0.753			

Table 5 shows the results of the measurement model. The composite reliability values for the four constructs were at 0.843 to 0.881. Hair et al. (2017) stated that composite reliability value should be more than 0.7. The AVE values were 0.537 to 0.672, which is in line with the range recommended by Hair et al. (2017) for AVE, that it should be at least 0.5 for each variable to be sufficient. In terms of loading for indicators, the present study items have values between 0.514 to 0.869. Hair et al. (2017) suggested that the loading for indicators below the threshold of 0.40 should be removed. Thus, all the results indicate that the model in this study has achieved the required criteria.

Table 6 The Fornell-Larcker Criterion Analysis for Checking Discriminant Validity of First-order

	Constructs				
	<i>Ex M</i>	<i>Iden M</i>	<i>In M</i>	<i>Intro M</i>	<i>Teaching Strategies</i>
Ex M	0.820				
Iden M	-0.002	0.811			
In M	0.110	0.544	0.769		
Intro M	0.235	0.504	0.387	0.733	
Teaching Strategies	0.185	0.493	0.411	0.373	0.757

AVE > r² (Hair et al., 2017)

Table 6 demonstrates the Fornell-Larcker's measure. The AVE square root values in the first order constructs should be more than the correlations among all the other variables (Fornell and Larcker, 1981), which is evident through the results that found the value of AVE which is greater than the value of all the constructs below it.

Table 7 The Heterotrait -Monotrait (HTMT) Criterion for Discriminant Validity

	<i>Ex M</i>	<i>I den M</i>	<i>In M</i>	<i>Intro M</i>	<i>Teaching Strategies</i>
Ex M					
I den M	0.096				
In M	0.139	0.679			
Intro M	0.370	0.622	0.518		
Teaching Strategies	0.200	0.610	0.540	0.487	

HTMT <0.85 (Henseler, Ringle & Sarstedt, 2015)

The table 7 shows the Heterotrait Monotrait criterion of correlation (HTMT). Henseler et al. (2015) stated that the HTMT value of correlation should not be more than 0.85. In this study, the HTMT values are less than 0.85.

6.3 Structural Model Assessment

Figure 4 shows the values of the structure model assessment based on the Partial Least Squares Structural Equation Modeling PLS-SEM bootstrapping procedures.

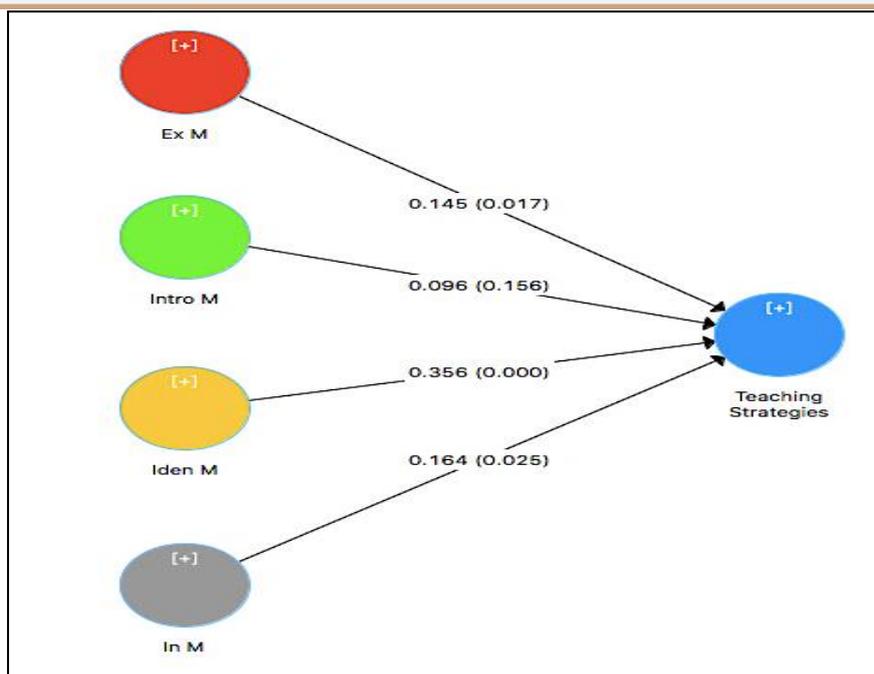


Figure 4. Structure model using PLS-SEM bootstrapping procedures.

Table 8 Assessment of Significant Relationship in First Order Structural Model

Hypothesis	Relationship	Std. Beta (β)	T Values	P Values	Finding
Ho:1	Ex M → Teaching Strategies	0.145	2.774	0.017	*Significant
Ho:2	Intro M → Teaching Strategies	0.096	1.517	0.156	Not Significant
Ho:3	Iden M → Teaching Strategies	0.356	5.070	0.001	*Significant
Ho:4	In M → Teaching Strategies	0.164	2.320	0.025	*Significant

Note: * Significant at $P < 0.05$ (2-tailed)

Table 8 illustrates hypothesis assessment using bootstrapping PLS-SEM. The results show that there is a significant relationship between external regulations (Ex M) and teaching strategies ($\beta = 0.145$, $T = 2.774$, $P < 0.05$) and identified regulations (Iden M) with teaching strategies ($\beta = 0.356$, $T = 5.070$, $P < 0.05$), and intrinsic regulations (In M) with teaching strategies ($\beta = 0.164$, $T = 2.320$, $P < 0.05$). Meanwhile, there is no significant relationship between introjected regulations (Intro M) with teaching strategies ($\beta = 0.096$, $T = 1.517$, $P > 0.05$). Therefore, hypotheses 1, 3, and 4 are significant. On the other hand, hypothesis 2 is not significant.

7 DISCUSSION

The findings confirm that there is a significant relationship between teacher motivation and teaching strategies among primary school teachers in Southern Thailand. More specifically, the results show that external, identified, and intrinsic regulations are dimension of motivation for teaching have significant relationship with teaching strategies among primary school teachers in Southern Thailand. This is because most of the respondents graduated with a bachelor's degree in physical education and sports science = 77.9% of respondents (see table 4).

According to Guajardo (2011), teaching the topic that they are expert in can increase the motivation of the teacher. This is to say, in order to enhance teacher motivation, teachers should be teaching the class which suits their character and which they are expert in (Malouff et al., 2008). Additionally, Ko (2016) argues that instructors who are expert in their subject are able to impart good knowledge to students. Consistent with Butler and Shibaz (2014); Han et al. (2015); Hanson (2011), teacher incentive is also correlated to teaching approaches, effective teaching, quality, and students' achievement. Similarly, Tulyakul et al. (2018) found that there is a positive relationship between teacher motivation and teaching effectiveness because if physical education teachers had suitable motivation for teaching, it influences positive teaching.

For Hein et al. (2012), internally motivated teachers tend to use more creative teaching designs. Bieg et al. (2011) argue that internally motivated teachers involved in the teaching and learning processes encourage their students. In addition, Mkumbo (2011) stated that interest and desire to help others motivate teachers to be more effective. This is similar to the result of Perlman (2013) who found that motivation toward teaching can be a main construct for the increase of effective teachers. Thus, the school directors or administrators should support their instructors towards the subject which suits his or her character and which he or she is an expert in (Malouff et al., 2008) or provide rewards such as extra money and boost their morale (Benabou and Tirole, 2003).

Additionally, the current study found that there is a significant relationship between external regulation and TE such as teaching strategies. Sometimes, physical education teacher needs to get rewards, praise or pressuring from outside such as "When I try to find interesting subjects and new ways of teaching, I do so because I want the parents to be satisfied so they won't complain." This is demonstrated that the teacher wants to parents satisfied only when they find new teaching methods. Benabou and Tirole (2003) found that external regulation is weak reinforces in the short run, but in the long term are negative reinforced. Thus, supporting the external regulation in physical education teacher should not aim for rewards when teaching. This is because when unforeseen circumstances, when the reward is not available the teacher might demotivated to

teach. On the other hand, rewards also created negative influence because the rewards controlled the individuals' motivations.

However, the current study also found that there is no significant relationship between introjected regulations and teaching strategies among primary school teachers in Southern Thailand. According to Anderson (2016), introjected regulations refers to when teachers feel guilty, worried or ashamed during teaching. The results show that the respondents are not worried or ashamed when they are teaching. On the other hand, the respondents from this study, feel happy and fun to create new teaching. Hence, it is suggested that effective teaching be able to increase teacher motivation. This is because high motivation has a direct influence on teaching effectiveness and is able to increase student achievement (Christopher, 2013).

8 CONCLUSION, LIMITATIONS AND FURTHER RESEARCH

Overall, the current study found that there is a significant relationship between teacher motivation and teaching strategies among primary school teachers in Southern Thailand. There is a significant relationship between external regulations and teaching strategies, identified regulations and teaching strategies, and intrinsic regulations with teaching strategies. On the other hand, there is no significant relationship between introjected motivation and teaching strategies among primary school teacher in Southern Thailand. However, introjected regulations in relation to teaching strategies cannot be ignored but should enhance all the other dimensions of teacher motivation. Hence, this study can be helpful for physical education teachers to understand better the methods for increasing teacher motivation in order to improve and develop their teaching strategies. Respondents of this study were chosen among physical education teachers in Southern Thailand. Therefore, the scope and context of the results of the study are applicable only to physical education teachers in Southern Thailand provinces. The further research should be conducted in other parts of Thailand as well as include interviews as additional data collection method.

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