

THE ROLE OF LEARNING MOTIVATION IN MEDIATING LEARNING OUTCOMES

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ABSTRACT

Education is an effort to realize the ideals of the nation. To achieve good education, learning facilities, teacher teaching skills, interest in learning and learning motivation are needed. Learning facilities are needed by schools to be right on target and effective in their use. The effectiveness of the provision of learning facilities can improve the quality of learning. Besides that, in creating fun, effective, and innovative learning, a teacher needs a skill. If students have an interest in the teaching material being studied, they will study seriously and can obtain optimal learning outcomes because they like it and will feel satisfied when their wishes have been fulfilled. Respondents in this study were 80 student teacher candidates. The study used a path analysis design. The results of the study of learning motivation mediate learning facilities, teacher teaching skills and learning interest on learning outcomes.

Keywords : Learning facilities, interest in learning, motivation to learn

Introduction

Education has an important role as a means of creating quality and superior human resources, because quality and superior human resources are able to compete in the free market era. An effective teaching and learning process can optimize educational outcomes. Optimal educational outcomes can be seen from the learning outcomes of students.

Learning outcomes are said to be optimal if students are able to understand the material, have skills and positive behavior after they have finished following the learning process as expected by the implementation of education. Learning outcomes will be obtained when students have completed the learning process. The success of the learning outcomes achieved by these students is influenced by various factors, namely factors from within oneself (internal) and factors from outside oneself (external). Internal factors include abilities, interests, learning motivation, study habits, persistence, psychological and physical factors. Meanwhile, external factors include the quality of teaching. The quality of teaching is whether or not a learning process is effective in achieving learning objectives (Boudreaux et al, 2016).

The quality of teaching is closely related to teachers and learning facilities in schools. Facilities are complementary learning support (Koca, 2016). The availability of learning facilities is expected to provide assistance and encouragement to students. Students who are motivated to carry out learning activities will be able to achieve optimal learning outcomes. Research conducted (Ball et al, 2009) concluded that there is an influence between learning facilities on learning outcomes. However, research conducted by Singh et al (2018) states that learning facilities have no effect on learning outcomes.

In addition to learning facilities, teacher factors also affect student learning outcomes. The teacher is a director as well as an actor in creating and planning teaching and learning activities that will be implemented in the classroom. Therefore, a teacher in teaching must have skills. Teacher teaching skills are absolute skills that must be possessed by teachers in creating the effectiveness of the learning process. Competent and professional teachers will be able to maximize their role in managing the class. Good classroom management is expected to be able to encourage and help students achieve optimal learning outcomes. Interest is one of the internal factors that can affect the learning outcomes of students. Interest is a feeling of liking and being attracted to something or activity (Vibulphol, 2016).

This feeling of love and attraction arises without coercion from others. So that someone who has an interest in learning about something will continue to pay attention and remember the activity with a sense of liking without being forced. Students who have an interest in the learning process are able to improve the learning outcomes achieved than students who have no interest. According to Vibulphol (2016) motivation is a change in energy in a person which is marked by the emergence of feelings which are preceded by a response to goals. According to Vainikainen et al (2015) motivation can be divided into 2 (two) types, namely intrinsic motivation and extrinsic motivation. The extrinsic motivation of students is a condition from outside themselves that encourages students to carry out learning activities. The availability of learning facilities at schools and the teaching skills of teachers

during the learning process are things or conditions that come from outside the students which are thought to cause learning motivation, so that it will affect learning outcomes. Students' intrinsic motivation can be a feeling of liking the material and the need for the material.

Literature review

Learning outcomes

Learning is a process that is carried out by a person to obtain a change in behavior based on the experience he has. In general, there are 3 (three) learning theories, namely the theory of psychology, Gestalt psychology, and association psychology (Paolini, 2015). According to Krapp (1999) there are several theories about learning, namely the theory of Gestalt, Bruner, Piaget, Gagne, Bandura, Ausubel, and purposeful learning. The theory of learning the psychology of power states that humans have various kinds of power that are trained according to their functions. According to this theory, the important thing in learning is not the handling of matter or matter, but the result of the formation of these forces.

Gestalt theory states that learning the whole is more important than the parts or elements. Because the existence of the whole comes first. Gestalt theory explains that the learning process is carried out by students connecting a subject with other subjects as much as possible, experiencing development due to interaction with the environment, the teacher not only teaches science but also forms the student's personality, and students can adapt themselves to the subject matter. learned, in order to obtain an ability. Environmental interactions carried out intellectually, physically, emotionally, and socially will provide an experience for students. In addition to experience, learning can be more successful when it is related to the interests, desires and goals of students, and learning takes place continuously.

According to Paolini (2015) student learning outcomes are influenced by internal factors, in the form of students' abilities, learning motivation, interest and attention, learning attitudes and habits, persistence, socioeconomic, physical and psychological factors. Also external factors that are very dominant in influencing learning outcomes in schools, namely the quality of teaching.

Learning Facilities

According to Lee (2010), a tool for realizing effective and efficient educational goals through the fields of education is called education management. One of the scopes of education management is the management of facilities and infrastructure. Management of facilities and infrastructure is an activity of how to organize and manage educational facilities and infrastructure in order to achieve predetermined goals including planning, procurement, supervision, inventory storage, deletion and arrangement. The learning facilities available in schools require good management so that the procurement of these facilities and infrastructure is right on target and effective in their use. Because planning for the procurement of school education facilities and infrastructure is an effort to improve the quality of the teaching and learning process. Learning facilities are completeness of supporting learning for students (Singh et al, 2017). completeness of learning facilities consisting of learning media, equipment, books and other learning resources, and learning spaces. Learning space for accounting and finance expertise programs, including classrooms, library rooms, laboratory rooms, computers and languages.

Teaching Skills

The teaching and learning process which is implemented effectively can optimize learning outcomes. Teaching is the process of regulating, organizing the environment around students so that they can grow and encourage students to carry out the learning process (Kahu et al, 2017). Teachers in creating a conducive, effective, creative, innovative, and fun learning atmosphere require a variety of skills including teacher teaching skills. According to Ball (2009) skill is the ability to carry out various complex and neatly structured behavior patterns with circumstances to achieve a certain result.

Lee (2010) revealed that there are eight teacher teaching skills that play a major role and determine the quality of teaching, namely the skills to ask questions, provide reinforcement, conduct variations, explain, open and close lessons, guide small group discussions, manage classes, and teach small groups and individually.

Interest to learn

According to Vibulphol (2016) interest is a tendency and high enthusiasm or a great desire for something. Lee (2010) argues that interest is defined as the tendency of a person's soul to something accompanied by feelings of pleasure because he feels there is an interest in that something. Interest is the tendency to pay attention continuously and reminisce about some of these activities accompanied by feelings of pleasure. Interest has a difference with attention, if attention is temporary and not necessarily followed by liking, while interest is always followed by liking and its nature is permanent, so that satisfaction is obtained. Interest comes from yourself without coercion

from others. Based on this explanation, it can be concluded that the meaning of interest in learning is the tendency to stay in paying attention and reminiscing about learning activities continuously followed by a feeling of liking without coercion from others with the need to learn about it.

Learning is very much influenced by interest, because if students have an interest in the subject matter being studied, they will study seriously because there is an attraction. Teaching materials that are of interest to students are easier to learn and store, because interest can add to learning activities. Teaching materials that are not interested by students will rarely be studied, so that the content of the teaching materials is less mastered by students. As a result, the learning outcomes obtained are not optimal (Paolini, 2015).

Motivation to learn

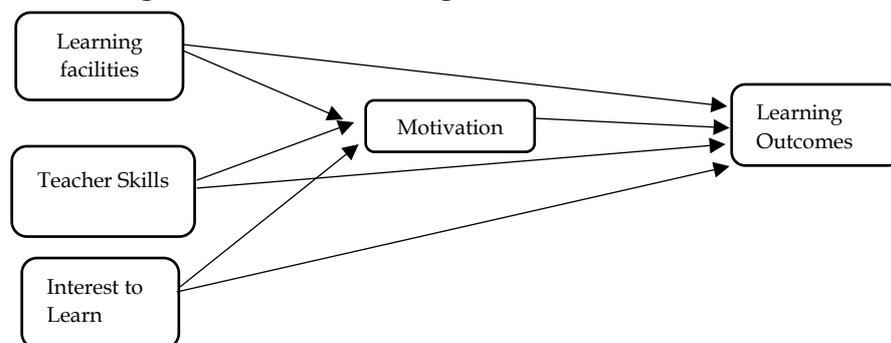
Motivation is the driving force to encourage living things to do something (Vibulphol, 2016). Motivation to learn is a desire or urge to learn, where a person knows what is going to be learned and understands why to learn it. Kahu (2017) also argues that the notion of motivation is a change in energy experienced by a person characterized by the emergence of feelings and preceded by a response to a goal. If there are students who do not do something that should be done, then as a teacher they must find the cause. The cause of this is usually because he may not feel happy, sick, hungry, there are personal problems, and so on. As a result, the student does not change energy because he does not have a learning goal or need. Students who do not have the motivation to learn, teaching and learning activities will be difficult to succeed. Motivation is related to someone's experience and interest in something or activity.

Someone who is not interested in the activities they do, they will not get meaningful experiences. Because they are not motivated, as a result, there will not be a good learning process for them. Therefore, as a teacher, it should be able to encourage students or in other words provide stimulation to want to do the work that should be done, namely learning. In learning activities, motivation is used as a driving force in students to generate learning activities, ensure the continuity of learning activities, and direct these learning activities. Motivation has an influence on learning. Learning outcomes will be optimal if there is the right motivation for students. Motivation arises because there are motives and needs in the individual.

Method

This type of research is quantitative research. Quantitative research procedures include collecting data using research instruments and then statistical data analysis in order to test the predetermined hypothesis. The research design can be described as follows:

Figure 1. Research design



The target population used in this study were students in vocational schools, amounting to 80 student teacher candidates. In this study, samples were taken using simple random sampling technique. Simple random sampling is a technique of taking members of the sample from a population that is done randomly without paying attention to the strata in the population. The questionnaire was used to obtain data on learning facilities, teacher teaching skills, interest in learning, and learning motivation. The questionnaire assessment used the Likert scale guideline. The Likert scale is used to measure the attitudes, opinions and perceptions of a person or group of people regarding the research variables that have been determined by the researcher. The measured variable will be translated into a variable indicator. The answers to each instrument item range from very positive to very negative. The data analysis technique used in this study is the classical assumption test, path analysis, single test and partial determination coefficient.

Result

The path coefficient can be calculated by creating a regression model equation according to the hypothesized relationship. The Equation of Learning Facility Regression Analysis, Teacher Teaching Skills, and Learning Interest in Learning Motivation. The regression analysis equation is used to predict how far the influence of learning facilities, teacher teaching skills and interest in learning on learning motivation can be seen in the following table:

Tabel 1. Standardized Coefficients Beta

Model	Std. Error	Standardized Coefficients Beta
Learnfact-learnout	0,073	0,767
Learnfact-mov	0,074	0,723
Teachskill-learnout	1,000	0,667
Teachskill-mov	1,040	0,567
Interest-learnout	0,075	0,843
Interest-mov	0,083	0,775
Mov-learnout	0,073	0,795

The results of the calculation of the path analysis pattern can be seen in the following figure:

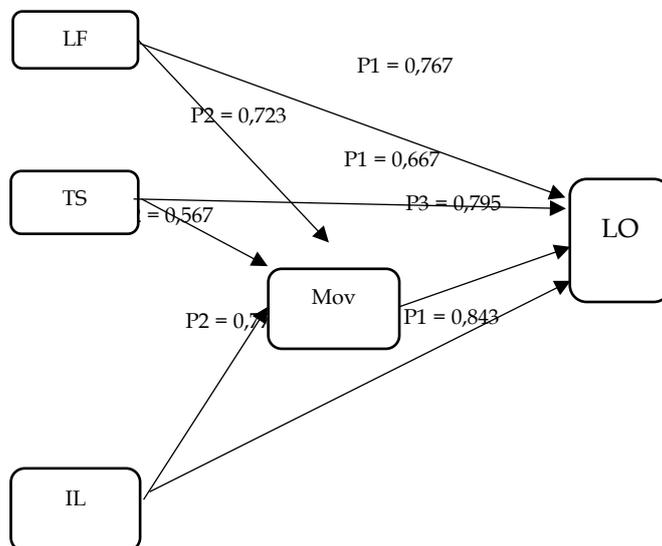


Figure 2. Path analysis test results

Based on Figure 2 it can be seen that the influence of the dependent variable can be direct or indirect on the independent variable through the intervening or mediation variables in this study as follows: Based on the calculation of the results of the beta value above, it shows that the direct effect of learning facilities on learning outcomes is 0.767 while the indirect effect amounting to 0.575. which is the product of the beta value of learning facilities with motivation and motivation with learning outcomes. So that the greater the value of the direct effect. Furthermore, based on the above calculations, it shows that the direct effect of teacher teaching skills is 0.667 while the indirect effect is 0.451. So, it can be concluded that the direct effect is greater than the indirect effect. Then based on the above calculations, it shows that the direct effect of interest in learning is 0.843 while the indirect effect is 0.616. Thus, from the results of the path analysis it can be calculated that the value of the indirect effect is smaller than the direct effect, but overall motivation is able to mediate learning facilities, teacher teaching skills and interest in learning on learning outcomes.

After testing the hypothesis, the results of the analysis show that the learning facility variable shows the regression coefficient is positive. The positive sign on the coefficient value indicates a unidirectional relationship between learning facilities and basic accounting learning outcomes. Thus, if the learning facility has increased or decreased, it will cause an increase or decrease in basic accounting learning outcomes. This shows that learning facilities have an influence on students in vocational schools in relation to basic accounting learning outcomes. Facilities are completeness to support activities, learning facilities that are available in full at school can provide convenience

for students in learning activities. Learning facilities that are well managed by the school can be used according to their function and can last a long time. The achievement of management objectives for facilities and infrastructure in schools is an effort to improve the quality of teaching. Good teaching quality will be able to improve student learning outcomes. This shows that the respondent agrees that the school has carried out management of facilities and infrastructure properly, so that it can support learning activities at school. Learning facilities that are complete, on target, and effective in use can improve the quality of learning. The quality of learning that increases will improve learning outcomes. Thus it can be concluded that learning facilities have a positive and significant effect on basic accounting learning outcomes. After testing the hypothesis, the results of the analysis show that the teacher teaching skills variable shows the value of the regression coefficient is positive. The positive sign on the coefficient value indicates a unidirectional relationship between teacher teaching skills and basic accounting learning outcomes. So, if the teacher's teaching skills have increased or decreased, it will cause an increase or decrease in learning outcomes. This means that teacher teaching skills affect student learning outcomes in vocational schools. This shows that teacher teaching skills have an influence on students in relation to learning outcomes.

In creating fun, effective, and innovative learning, teacher teaching skills are needed. The teaching skills of the teacher consist of questioning skills, reinforcement skills, variation skills, explanation skills, opening and closing lessons, small group discussion guiding skills, class management skills, and small group and individual teaching skills. Professional teachers will be able to maximize their role properly. The teacher is a director as well as an actor in creating and planning learning activities that will be applied in the classroom. Teachers who can apply teaching skills well will be able to help students achieve maximum learning outcomes. This shows that the respondents agree that the teacher has implemented the eight teacher teaching skills well. The teaching skills of the teacher are applied properly, so that a conducive, effective, creative, innovative, and fun learning atmosphere is created. Effective learning will improve learning outcomes. After testing the hypothesis, the results of the analysis show that the interest in learning variable shows the value of the regression coefficient is positive. The positive sign on the coefficient value indicates a unidirectional relationship between interest in learning and learning outcomes of basic accounting. So, if interest in learning has increased or decreased, it will cause an increase or decrease in basic accounting learning outcomes. This means that interest in learning affects learning outcomes. This shows that interest in learning has an influence on students.

Interest is a lack of attention that is carried out continuously and remembers some of these activities accompanied by a feeling of pleasure without any external coercion. Learning interest is very important in learning activities, if students have an interest in the teaching material being studied, they will study seriously. This shows that the respondent agrees if the respondent has an interest in learning basic accounting subjects. Subjects that are of interest to students will be studied in earnest, so that it will be easier to learn and remember. This means that it can achieve better learning outcomes.

Learning facilities are complementary to support students' learning activities. Learning facilities in schools, namely the equipment used for learning, learning media, books and other learning resources and learning spaces that support student learning activities. Learning facilities are well managed by schools so that they are right on target and effective in their use. The effectiveness of the provision of learning facilities can improve the quality of learning.

Learning activities are carried out effectively in achieving the learning objectives that have been formulated to help students achieve optimal learning outcomes. Students who take advantage of the learning facilities will also find it easy to learn. If they do not find learning difficulties, they will be more successful in the learning process. So that learning facilities have an influence on learning outcomes. Teaching is a process of regulating and organizing the environment around students in order to grow and encourage students to carry out the learning process. In creating fun, effective, and innovative learning, a teacher needs a skill. Teacher teaching skills are absolute skills that must be possessed by a teacher. There are 8 (eight) teacher teaching skills that play a very important role and determine the quality of teaching, namely the skills to ask questions, provide reinforcement, hold variations, explain, open and close lessons, guide small group discussions, manage classes, and teach small groups and individually.

If the teacher can apply the eight teaching skills, then the learning process will create pleasant, effective, and innovative learning conditions. Effective learning activities are able to optimize student learning outcomes. So that the teaching skills of teachers have an effect on learning outcomes. Interest is the tendency to pay attention continuously and reminisce about some of these activities accompanied by feelings of pleasure. Interest is also defined as the tendency of a person's soul to something accompanied by feelings of pleasure because he feels there is an interest in that something. If students have an interest in the teaching material being studied, they will study seriously and can obtain optimal learning outcomes because they like it and will feel satisfied when their wishes have been fulfilled.

Meanwhile, teaching materials that are not of interest to students will be rarely studied, it can result in students not being able to master the teaching materials. The result is that they cannot get optimal learning results. Based on this description, it can be concluded that learning outcomes are influenced by interest in learning. Motivation to learn is a desire or urge to learn, where a person knows what is going to be learned and understands why to learn it. Motivation arises because there is stimulation in the form of a goal which is marked by the emergence of feeling.

Owned learning motivation can provide experience to students. The experience they have can change their behavior. Changes in good behavior are called learning. If students have experienced changes in behavior, then they have obtained learning outcomes. Optimal learning outcomes are influenced by strong learning motivation. Based on these descriptions, it can be concluded that learning motivation affects learning outcomes.

Motivation arises because there are motives and needs. Students who are aware of the need to carry out learning activities, they will try to meet these needs in order to achieve the goals they want. The availability of complete facilities and infrastructure can help the learning process of students because learning facilities are a means of supporting learning activities. So that they will find it easier to meet their learning needs because of the learning facilities.

Students who have motives and do not find difficulties in fulfilling needs can create motivation in themselves. From this description, it can be concluded that learning facilities affect learning motivation. Most likely students do not have motivation to learn because they feel unhappy with the learning activities they do. A teacher has a role to create fun learning so that the learning process is successful. The teacher's way of realizing fun learning is by applying teaching skills.

So that a teacher must have good teaching skills in order to increase the learning motivation of their students. Because it is the teacher's obligation to help increase the learning motivation of students so that they can meet their needs and achieve their learning goals. Based on this, it can be said that teacher teaching skills affect learning motivation.

Motivation is related to experiences and interests. Someone who is not interested in the activities they do, they will not get meaningful experiences. Because they do these activities not based on motivation. When students feel happy with the learning they are carrying out, it means that these students have an interest in learning. Because they like to carry out these activities, they will get valuable experience and can bring progress to themselves. So that motivation can emerge in students. This condition is an example of the intrinsic motivation that students have. Thus, learning motivation is influenced by interest.

Motivation arises because there are motives and needs. Students who are aware of the need to carry out learning activities, they will try to meet these needs in order to achieve the desired goals. The availability of complete facilities and infrastructure can help the learning process of students because learning facilities are a means of supporting learning activities. Management of facilities and infrastructure that is implemented by schools properly will make these facilities effective and right on target. So that students will find it easier to meet learning needs because of the learning facilities.

Learning facilities that are managed properly can improve the quality of teaching. Quality teaching will be able to help students to have motives and not find difficulties in fulfilling needs, so that they can generate motivation in themselves. Because the students have the right motivation, they will be able to get optimal learning outcomes. Therefore, learning facilities can influence learning outcomes through learning motivation.

Teachers have a role in creating a learning process that is fun, effective, and innovative. In addition to creating fun learning, a teacher must also help students to increase learning motivation so that students are able to meet their needs. The way teachers deal with this is by applying their teaching skills. Because teacher teaching skills are an absolute skill that a teacher must have. An effective learning process can increase the motivation of students so that they can obtain optimal learning outcomes. Therefore, teacher teaching skills can affect learning outcomes through learning motivation.

Students who have an interest in learning, it means that they get a learning experience that is able to make them interested so that they always pay attention to these learning activities with feelings of pleasure without being told or forced by others. Because they have an interest in learning, they will study seriously. If students have studied in earnest, it means they already know what will be learned and understand why to learn it.

This can be interpreted that these students already have motivation within themselves. Because students have the right motivation, they will be able to obtain optimal learning outcomes. So that interest in learning can affect learning outcomes through learning motivation. The learning process that is implemented effectively can optimize student learning outcomes. Learning outcomes will be obtained by students, when they have completed the learning process, it is marked by having positive knowledge, skills, and behavior. Whether or not a learning process is effective in achieving learning objectives is called the quality of teaching. In realizing the quality of teaching, learning facilities and teaching skills are needed. In addition, students are also expected to have an interest in learning. Those who have an interest will study seriously because of their interest in the material being studied. Optimal learning outcomes can be obtained if students have strong learning motivation. The availability of learning facilities that meet the needs of students, good teacher teaching skills during the learning process, and interest in learning are expected to be able to foster strong learning motivation in students so that optimal learning outcomes can be obtained.

Learning facilities, teacher teaching skills, interest in learning, and learning motivation are factors that can affect learning outcomes, whether or not the learning outcomes obtained by students are influenced by these factors. Based on the results of a preliminary study at vocational schools, it is known that the learning outcomes of students in basic accounting subjects are in good categories. However, when researchers conducted a literature review, they still found research gaps regarding the effect of learning facilities, teaching skills, interest in learning, and learning motivation on learning outcomes.

Conclusion

Based on the research that has been done, it can be concluded as follows: There is a positive and significant effect of learning facilities on learning outcomes, this means that the effect of learning facilities on learning outcomes is significant. So that the better the learning facilities, the higher the learning outcomes. There is a positive and significant effect of teacher teaching skills on learning outcomes, this means that the effect of teacher teaching skills on learning outcomes is significant. So that the better the teaching skills of the teacher, the higher the learning outcomes. There is a positive and significant influence of interest in learning on learning outcomes, this means that the effect of interest in learning facilities on learning outcomes is significant. So that the higher the interest in learning, the higher the learning outcomes. Motivation to learn mediates learning facilities, teacher teaching skills and interest in learning towards learning outcomes.

References

- Ball Deborah Loewenberg, Forzani Francesca. 2009. The Work of Teaching and the Challenge for Teacher Education. *Journal of Teacher Education* 60(5).
- Boudreaux Mary Keller, Mcneal Larry. 2016. Perceptions of Quality School Facilities – Implications for the School Administrator. *International Journal of Higher Education* 1(2).
- Koca Fatih. 2016. Motivation to Learn and Teacher–Student Relationship. *Journal of International Education and Leadership Volume* 6 (2).
- Krapp Andreas. 1999. Interest, motivation, and learning: An educational-psychological perspective. *European Journal of Psychology of Education*. *European Journal of Psychology of Education* 14(1).
- Kahu Ella, Nelson Karen, Picton Catherine. 2017. Student interest as a key driver of engagement for first year students. *Journal of Student Success*. 8(2).
- Lee Chao. 2010. The Effect of Learning Motivation, Total Quality Teaching and Peer-Assisted Learning on Study Achievement: Empirical Analysis from Vocational Universities or Colleges' students in Taiwan. *The Journal of Human Resource and Adult Learning*. 6(2).
- Paolini Allison. 2015. Enhancing Teaching Effectiveness and Student Learning Outcomes. *The Journal of Effective Teaching*, 15(1).
- Singh Vaishali, Kumar Ravindra. 2017. Impact of Institution's Infrastructural Facilities on Academic Attainments and Placements of Management Graduates–A Diagnostic Study. *International Journal of Science and Research (IJSR)*. 6(11).
- Vainikainen Mari-Pauliina, Salmi Hannu, Thuneberg Helena. 2015. Situational Interest and Learning in a Science Center Mathematics Exhibition. *Journal of Research in STEM Education*. 1(1).
- Vibulphol Jutarat . 2016. Students' Motivation and Learning and Teachers' Motivational Strategies in English Classrooms in Thailand. *Journal of English Language Teaching*. 9(4).