



សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ
ROYAL UNIVERSITY OF PHNOM PENH

**ទំនាក់ទំនងរវាងវិធីសាស្ត្រនៃការបង្រៀនរបស់គ្រូគាសា
អង់គ្លេស ការជំរុញទឹកចិត្តក្នុងការរៀន និងការចូលរួមរបស់សិស្ស
ក្នុងការសិក្សានៅវិទ្យាល័យក្នុងប្រទេសកម្ពុជា**

The Relationship Between Teacher of English Instructional Styles, Learning
Motivation, and Learning Engagement at high school in Cambodia

Research thesis

in Partial Fulfillment of the Requirements for the Degree of Master in Curriculum
and Instruction of Faculty of Education of Royal University of Phnom Penh

Mr. Mao Kosal

July 2023

សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ
ROYAL UNIVERSITY OF PHNOM PENH

**ទំនាក់ទំនងរវាងវិធីសាស្ត្រនៃការបង្រៀនរបស់គ្រូគាសា
អង្គភាព ការជំរុញទឹកចិត្តក្នុងការរៀន និងការចូលរួមរបស់សិស្ស
ក្នុងការសិក្សាលើវិទ្យាល័យក្នុងប្រទេសកម្ពុជា**

The Relationship Between Teachers of English Instructional Styles,
Learning Motivation, and Learning Engagement at high school in Cambodia

Research thesis
in Partial Fulfillment of the Requirements for the Degree of Master in Curriculum
and Instruction of Faculty of Education of Royal University of Phnom Penh

Mr. Mao Kosal

Examination committee: Dr.
Dr.

July 2023

មូលន័យសង្ខេប

ការសិក្សានេះបានពិនិត្យពីទំនាក់ទំនងរវាងវិធីសាស្ត្រនៃការបង្រៀនរបស់គ្រូភាសាអង់គ្លេស (ឧ. ការគាំទ្រសម្រាប់ការសិក្សាតាមវីដេអូបង្រៀន ការគាំទ្រ និង មតិកែលម្អសម្រាប់ការរៀន និងការគាំទ្រសម្រាប់ការផ្តល់ស្វ័យភាពក្នុងការរៀន) ជាមួយការជំរុញទឹកចិត្តក្នុងការរៀន និងការចូលរួមក្នុងការសិក្សារបស់សិស្សថ្នាក់ទីដប់ពីរ។ ទិន្នន័យត្រូវបានប្រមូលពីសិស្សថ្នាក់ទី 12 ដែលបានជ្រើសរើសដោយចៃដន្យចំនួន 510 នាក់ ($N = 510$), បុរស ($N = 206$), ស្រ្តី ($N = 304$), អាយុ (ពី 16 ទៅ 21), ប្រភេទថ្នាក់រៀន (វិទ្យាសាស្ត្រសង្គម $N = 200$, វិទ្យាសាស្ត្រពិត $N = 310$), និងគម្លាតស្តង់ដារ (ភេទ.491, អាយុ.833, និងប្រភេទថ្នាក់រៀន.489) នៅវិទ្យាល័យក្នុងប្រទេសកម្ពុជាដោយប្រើកម្រងសំណួរមាត្រដ្ឋានប្រែប្រួល។ ការសិក្សានេះបានរកឃើញថាអរថេរទាំងអស់មានទំនាក់ទំនងគ្នាទៅវិញទៅមកពីកម្រិតទាបខ្លាំងទៅមធ្យម (ពី 0.184 ដល់ 0.585) ។ ជាងនេះទៅទៀត ការវិភាគសមីការទំនាក់ទំនងអរថេរបានបង្ហាញថា វិធីសាស្ត្រនៃការបង្រៀនរបស់គ្រូភាសាអង់គ្លេសមានឥទ្ធិពលយ៉ាងសំខាន់ជាមួយនឹងការលើកទឹកចិត្តក្នុងការរៀន និងការចូលរួមក្នុងការសិក្សារបស់សិស្សថ្នាក់ទី១២ ។ ការសិក្សានេះបានរកឃើញថាការគាំទ្រសម្រាប់ការសិក្សាតាមវីដេអូបង្រៀន មានឥទ្ធិពលទៅលើការជំរុញទឹកចិត្តខាងក្នុងសំរាប់ការរៀន និងការជំរុញទឹកចិត្តខាងក្រៅសំរាប់ការសិក្សារបស់ថ្នាក់ទី១២ ហើយក៏មានឥទ្ធិពលទៅលើ ការចូលរួមតាមសកម្មភាពផ្លូវកាយក្នុងការរៀននិង ការចូលរួមតាមផ្លូវចិត្តក្នុងការសិក្សា។ ការសិក្សានេះក៏បានរកឃើញ ការគាំទ្រ និងមតិកែលម្អសម្រាប់ការរៀនមានឥទ្ធិពលទៅលើការជំរុញទឹកចិត្តខាងក្នុងការរៀន និងការចូលរួមតាមផ្លូវអារម្មណ៍ក្នុងការសិក្សា។ ទោះបីយ៉ាងណាក៏ដោយ ការសិក្សានេះបានរកឃើញថាក្នុងចំណោមវិធីសាស្ត្រនៃការបង្រៀនទាំងបី ការគាំទ្រសម្រាប់ការផ្តល់ស្វ័យភាពក្នុងការរៀនគឺមានឥទ្ធិពលខ្លាំងទៅលើការជំរុញទឹកចិត្តខាងក្នុងការរៀន និងជាកត្តាកំណត់ដ៏សំខាន់បំផុតនៃការចូលរួមតាមផ្លូវអារម្មណ៍ក្នុងការសិក្សារបស់សិស្ស។ ការគាំទ្រសម្រាប់ការសិក្សាតាមវីដេអូបង្រៀន មានឥទ្ធិពលខ្លាំងទៅលើការជំរុញទឹកចិត្តពីខាងក្រៅក្នុងការរៀនរបស់សិស្ស។ ការសិក្សានេះបានផ្តល់នូវភស្តុតាងវិទ្យាសាស្ត្របន្ថែមទៀតទាក់ទងនឹងកត្តាកំណត់សំរាប់ការជំរុញទឹកចិត្តនិងការចូលរួមក្នុងការសិក្សារបស់សិស្សថ្នាក់ទី 12 ។ លើសពីនេះ ការអនុវត្តជាក់ស្តែងត្រូវបានណែនាំសម្រាប់គ្រូបង្រៀនភាសាអង់គ្លេស។

ពាក្យគន្លឹះ : វិធីសាស្ត្រនៃការបង្រៀនរបស់គ្រូភាសាអង់គ្លេស / ការជំរុញទឹកចិត្តក្នុងការសិក្សា / ការចូលរួមក្នុងការសិក្សា / សមីការទំនាក់ទំនងអរថេរម៉ូដែលគំរូ

ABSTRACT

This study examined the relationship between perceptions of teacher of English instructional styles (i.e., support for video lecture learning, support and feedback for learning, and support for autonomy learning) with twelfth-grade students' learning motivation and learning engagement. Data was collected from randomly selected twelfth grade students (N = 510), male (N = 206), female (N = 304), age (from 16 to 21), field of study (social sciences N= 200, real sciences N= 310), and Std. Deviation of (sex .491, age.833, and field of study .489) at high school in Cambodia using adapted scales questionnaire. This study found all constructs have a relationship with each other from very low to moderate (from 0.184 to 0.585). Moreover, structural equation analyses revealed that perceptions of teacher of English instructional styles have a significant association with twelfth-grades students' learning motivation and learning engagement. This study found support video-lecture for learning associated with intrinsic and extrinsic learning motivation, and also associate with behavioral, and cognitive engagement. This study also found support and feedback for learning associate with intrinsic learning motivation, and behavioral engagement. However, the study found among the three measures of instructional styles, support for autonomy learning was the strongest predictor of intrinsic learning motivation and the most important determinant of affective engagement. Support video lecture was the strongest predictor of extrinsic leaning motivation. This study provides more scientific evidence concerning determinants of twelves grade students' learning motivation and learning engagement. In addition, practical implication is recommended for teachers of English.

Keyword: English of teacher's instructional styles, / learning motivation, / learning engagement, / structural modeling equation

SUPERVISOR’S RESEARCH SUPERVISION STATEMENT

TO WHOM IT MAY CONCERN

Name of program: Master of English

Name of candidate: Mao Kosal

Title of thesis: “The Relationships Between Teachers of English Instructional Styles, Learning Motivation, and Learning Engagement at high school in Cambodia”.

This is to certify that the research carried out for the above titled master’s thesis was completed by the above-named candidate under my direct supervision. I played the following part in the preparation of this thesis: guiding and commenting on research problem formulation, literature review construction, research methodology, research finding, discussion, and conclusion part as well as providing supervision and overseeing the whole process of this research thesis.

Supervisor (Sign)

Date.....03/24/2023.....

CANDIDATE'S STATEMENT

TO WHOM IT MAY CONCERN

This is to certify that the thesis that I Mao Kosal hereby present entitled “The Relationships Between Teachers of English Instructional Styles, Learning Motivation, and Learning Engagement at high school in Cambodia” for the degree of Master Education at the Royal University of Phnom Penh is entirely my own work and, furthermore, that it has not been used to fulfill the requirements of any other qualification in whole or in part, at this or any other University or equivalent institution.

No reference to, or citation from, this document may be made without the written approval of the author.

Signed by (the candidate): 

Date:03/23/2023.....

Countersigned by the Chief Supervisor 

Date.....03/24/2023.....

Second supervisor (if any)

Date.....

ACKNOWLEDGMENT

This thesis would not come into existence without encouragement, commitment, professionalism. Therefore, I would like to show my thankfulness to the following people:

First of all, I would like to express my deepest gratitude and thanks to my beloved family who always provide me with mental and physical support as well as time to facilitate my study.

Second, I would like to express my special gratitude and thanks to the Ministry of Education Youth and Sport (MoEYS) and UNICEF that provide this scholarship program not only school fee, but also internet fee, travelling fee and other financial support to me.

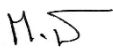
Third, I offer my great gratefulness to Royal University of Phnom Penh that provides me with great curriculum, and high qualification and experience lecture for this Master program.

Fourth, I am sincerely grateful to my both supervisors **Dr. Ke Sambo** (research proposal process), and **Mr. Neak Piseth** (final thesis process) who patiently provided me with constructive and insightful recommendations during the process of writing this research. His great efforts, motivation, professional advice, and attentive consultation have shed the light for the accomplishment of my research.

Last but not least, I never forget to say thanks to all my beloved classmates, who always help and share good ideas, relevant documents, and experiences.

Lastly, I would like to say thanks to all respondents, who devoted their valuable time to provide me the meaningful answers through my questionnaires. I am sure that my research would not be completed without their constructive responses and points of view.

Sincere Appreciation,



Mao Kosal

TABLE OF CONTENT

Abstract in Khmer	i
Abstract in English	ii
Supervisor's Research Supervision Statement	iii
Candidate's Statement	iv
Acknowledgment	v
Table of Contents	vi
List of Tables	viii
List of Figures	ix
 CHAPTER 1 INTRODUCTION	
1.1 Background of The Study	1
1.2 Research Problem	2
1.3 Research Purposes	3
1.4 Research Questions	3
1.5 Research Significance	3
1.6 Scope and Limitation of Research	5
1.7 Operationalize Definitions of Key Term	5
 CHAPTER 2 LITERATURE REVIEW	
2.1 Definitions of Learning Engagements	7
2.1.1 Factor Structure of Learning Engagements	8
2.2 Definition of Learning Motivation	9
2.2.1 Factor-Structures of Learning Motivations	9
2.3 Definitions of Instructional Styles of Teacher of English	10
2.3.1 Factor Structure of Instructional Styles of Teacher of English	11
2.4 Theoretical Background of Study	12
2.4.1 Self-Determination Theory	12
2.5 Relationship Between Motivation and Engagement	15
2.6 Empirical Studies	16
2.7 Conceptual Framework	19
2.8 Summary of The Research Study	19
 CHAPTER 3 METHODOLOGY	
3.1 Research Design	21
3.2 Site, Population, Sample Size and Sampling Method	21
3.3 Research Constructs	21
3.4 Research Instrument	22
3.4.1 Psychological Research Instrument	22
3.4.2 Development The Quality of Psychological Research Instruments	23
3.5 Data Collection	28
3.6 Data Analysis	29
 CHAPTER 4 DATA ANALYSIS AND RESULT	
4.1 Results	30
Research Question 1: What is The Relationship between Measures Teacher of English Instructional Styles, Learning Motivations and, Learning Engagement?	30

Research Question 2: Which Aspects of Teacher of English Instructional Styles are Associated with Learning Motivations, and Learning Engagement?	31
CHAPTER 5 DISCUSSION	
5.1 Discussion	34
5.1.1 Effects on Learning Motivation	34
5.1.2 Effects on Academic Engagement	35
CHAPTER 6 CONCLUSION	
6.1 Conclusion	37
6.2 Recommendations	37
6.2.1 Recommendation for Further Development	37
6.2.1 Recommendations for Further Studies	39
REFERENCES	40
APPENDICES	49

LIST OF TABLES

TABLES	PAGE
3.1 Descriptive statistics and Pearson's correlation between latent variables (N510)	25
3.2 EFAs results of all observed variables with all latent variables (N510)	26
3.3 Cronbach's alpha, CR, AVE, MSV, and ASV of all latent constructs	28
4.1 Descriptive statistics and Pearson's correlation between latent variables (N510)	31
4.3 SEM result: Direct, indirect and total association for Figure 4.1	33

LIST OF FIGURES

FIGURE	PAGE
1.2 The Relationship Between the independent and dependent variables of the study	19
4.1 Standardized coefficients for model of twelfth grade students' learning motivation mediating the relations between their perceptions of instructional styles and their learning engagement (N = 510)	32

CHAPTER 1

INTRODUCTION

This chapter is subdivided into seven sections. The chapter begins with background of the study that leads to the problem statement of the research study. After research objectives, research questions, research significance, scope and limitation of research, and operationalize definitions of key term.

1.1 Background of the study

English is a world language that has been used for economy, tourism, business, communication, academic study, international education and daily life (Tahir, Yousafzai, Jan, & Hashim, 2014). It is highly valued as an important tool for education, employment, and it was recognized as a foreign language in Cambodia education in the late 1980s by the Ministry of Education, Youth and Sport (Moore, 2010). English is so important for students broadening their minds, developing emotional skills, improving the quality of life by providing job opportunities (Tahir et al., 2014). English has provided students more gain confidence, effective personality, perfect communication. Since English was approved and taught as a foreign language in Cambodia, English for Cambodia (EFC) was developed and practiced in both lower- secondary and upper-secondary (Moore, 2010).

Generally, if students are poor in English language, they are going to face many problems in their studying. Most universities use English language as the main core teaching and learning. The curriculum, reading materials, assignment, and group presentation are used English language. Moreover, students are also difficult doing research, finding information, doing assignment, using ITC and communicating. English is as foundation for researching and reading materials, book that are really essential for getting knowledge, skills, experience in order to high qualification (Uysal, 2019).

The Ministry of Education, Youth and Sports reformed its education by including the foreign language subjects like English as priority, introducing initiatives to enhance English language education in Cambodian state schools by creating new English textbooks, upgrading teaching methodology, teacher instructional styles, developing teaching materials and technology in teaching and learning (Widiati & Hayati, 2015).

It is developed focus on Cambodian context that can involve and encourage students to learn effectively. Moreover, workshops both online and real class about ELT (English Language Teaching), research methodology are the main activities to support and teaching and learning. Furthermore, MoEYS provides incentives score to students in grade 9 and grade 12 in national exam. Training courses for sharing knowledge, classroom implementation and teaching methodology, encourage teaching staffs to upgrading in their professional by providing scholarship to study in the country and abroad. Although, Ministry of Education Youths and Sports did many reforms on English language teaching and learning, students always low achievement and they cannot achieve their learning goal.

1.2 Research problem

English plays the main role in Cambodia 's education systems (Widiati & Hayati, 2015). It is important for students for careers, communication, daily activities, and academic study. However, Cambodian students in grade 12th are always low achievement for English subject. According to MoEYS (2016), students who graduated grade 12th, there were 71.83% failure rates of foreign language in National Exam (Bredenberg, 2018). Currently, Em and Nun (2022) stated a high school is sought 78.72 % failures rates of final exam in grade 12th in 2021 for English subject. Moreover, many empirical studies revealed the cause which led learner to be lower learner or low achievement due to lower engagement in learning and teaching process (Estévez, Rodríguez-Llorente, Piñeiro, González-Suárez, & Valle, 2021; García-Martínez, Landa, & León, 2021; Newmann, 1992). According to S. Chan, Maneewan, and Koul (2021c) clarified that learning engagement has strongly relationship with students' achievement. When student perceived high engagement, their achievements are developed automatically. The learning process and course performance undergo from the low degree of student engagement (Newmann, 1992) .

Proved by Rahimi and Asadollahi (2012); Tolley, Johnson, and Koszalka (2012) effective teaching styles and classroom management have improved students' perceptions and behaviors of engagement involving with classroom activity. Teaching styles, classroom management and teacher-student interactions are considered as an indicator of student achievement and it is an important factor to create an effective learning environment (Sieberer-Nagler, 2016). In this respect, Brandisauskiene et al. (2021)

pointed out that student engagement is the result of successful classroom teaching and school development activities and that it is an increasingly important concept on that sense.

Furthermore, Cambodian teachers' teaching is motionlessly deficient to accelerate learners' learning. Numerous teachers were unable to achieve the intended outcomes from Cambodian education curriculums (Benveniste, Marshall, & Araujo, 2008; Tandon & Fukao, 2015). As a result, in order to improve educational quality, MoEYS (2018) specified prior development of teachers' instructional supports and curriculums in the teaching process. Relying on the qualities of the teachers, students can learn autonomously either separately or in groups. As a result, the shortages of learning engagement or achievement may be refereed on instructional conduct during the teaching process in the past.

1.3 Research purposes

In this study is to examine the relationship of teacher of English instructional styles are associated with twelfth grade students' learning motivation, and learning engagement in English subject. This study focused only on teacher of English instructional styles were grounded by self-determination theory as learning structure (i.e., support for video lecture learning, and support and feedback for learning,) and autonomy support (i.e., support for autonomy learning), were mediated by learning motivations (i.e., intrinsic motivations and extrinsic motivations), and associated with learning engagement (i.e., affective engagement, behavioral engagement, and cognitive engagement).

1.4 Research questions

1. What is the relationship between measures teacher of English instructional styles, learning motivations and, learning engagement?
2. Which aspects of teacher of English instructional styles, are associated with learning motivations, and learning engagement?

1.5 Research significance

In fact, empirical study impacted on the effects of daily activations enormously. Most of studies were reflected among real-based situations. Hence, this study contributed in

enhancing educational filed significantly with three layers: policy, academics, and practical level. As raised up with, researcher have pointed out as following:

Policy level

Obviously, this study has turned into a crucial instructional model for increasing learning engagement and can allow interested teachers to customize this instructional style (support for video-lecture, support and feedback for learning, and support for autonomy learning) to improve learning engagement and accomplishment for students in the familiar contexts. It contributes to raising educational standards by supporting curriculums and instructions that Ministry of education, youth, and sports, along with developed counterparts, can disseminate through official outlets throughout the whole nation. Moreover, sustainable development goal that expected to heighten the people's income form lower-middle income to lower-higher by 2030, this research maybe opened a way in looking for a solution acceleratively as well.

Academics level

As can be abovementioned, this study focused on instruction and curriculums for teaching entire general knowledge education with bilingual teaching styles. Hence, the implementation of the teacher of English instructional styles support to enhance learning engagement (support for video lecture learning, support and feedback for learning, and support for autonomy learning) can propose them to enable us to choose one of them to modify in order to increase student achievement or engagement. Theoretical-based instruction were rarely hard to analyzed among developing countries, as lacking of research design was related. Thus, efficiency and proficiency of finding was highly appropriate and reflecting with educational needs specifically.

Practical level

Marvelously, theories were countered with this study might be led to be strongly predicted and believable among developing countries, essentially for Cambodia context. Surprisingly, for next generation researchers may be confident with their studies, due to supporting with similar context. It could provide as support for further research investigations that consider variables that are depending on teacher of English the instructional styles. The concept can be continued to improve that lead its coefficient

validity. Last, but not least, antecedent research can develop their conceptual-based instruction to fit with theories as possible.

1.6 Scope and limitation of research

The following was included in the scope of this study

1. The study's constructs included teacher of English instructional styles (support for video lecture learning, support and feedback for learning, and support for autonomy learning), learning motivation (intrinsic learning motivation and extrinsic learning motivation), and learning engagement (affective engagement, behavioral engagement, and cognitive engagement).
2. 510 students in the twelfth grade are from four high schools in Cambodia participated in this study.

1.7 Operationalize definitions of key term

The terms needed to finish this study could have a variety of meanings. The necessary key concepts are defined below to help readers with study purposes grasp them more easily. So, the definition of key terms will list as following:

Teacher of English instructional style refers to structural behaviors, teaching styles or learning environment that teachers or instructor build to promote learner's thinking, activities and feasibility. Learners and teachers are considered as main role in supporting for learning and teaching process in the classroom or out-of- classroom.

1. **Support for video lecture learning** means that the teacher provides certain clips related to the courses and allows students to watch them before beginning the class. A tool in the flipped classroom or blended learning technique is video support. It is appropriate for the Covid-19 epidemic era, which was encouraged in use in promoting new educational technology for the twenty-first century.
2. **Support and feedback for learning** are referred to teacher's respond with students 'questioning in term of practice. Teacher required to fulfill what learners insists to know to improve their clarity through each lesson or assignment.
3. **Support for autonomy learning** refers to how freedom of making decision for learner to receive or refuse what they think or they are possible or hesitated to complete their task. Autonomy support offered learners expand their critical thinking or high order-thinking to determine self-concept and setting goal for fostering accelerative improvement in practicing for learning.

Learning motivation refer to some elements that boost up learners' emotion in learning. It is a reinforcer in learning by external and internal factors. The intrinsic and extrinsic rewards are considered as motivators to fulfill on task achievement intentionally.

1. **Intrinsic motivation** refers to the action is being enjoyed even if there is no obvious reward and lead the participants in acts intrinsically driven in order to exist self-determination and competence.
2. **Extrinsic motivation** refers to external rewards to boost potential learning such as: discipline, pressure, performance, competition, evaluation and assessment by teachers or others

Learning engagement refers to how much attention of students pay to learning activities such as involving classroom activities, coming to class, doing tasks, submitting assignments, listening to teachers' instructions, activeness, participation, interest, motivation, and effort.

1. **Affective engagement** refers to emotions that is a main factor of engagement indicates students' emotional reactions such as happiness, interest, enjoyment, values, students' reactions towards teachers, curriculum content and class.
2. **Behavioral engagement** refers that how and to what extent the students are active, paying attention, putting effort and showing persistence, putting effort and showing persistence.
3. **Cognitive engagement** defined as the extent to which students are willing and able to take on the learning task. It indicates self-regulation and use of learning strategies activities as well as in terms of self-regulation where students use self-regulating strategies to plan, monitor, and evaluate their cognition to gain mastery over task.

CHAPTER 2

LITERATURE REVIEW

This chapter begins with outcome variables (learning engagement), mediator variables (learning motivation), predictor variable (teacher of English instructional styles resulting in support for video lecture learning, support and feedback for learning, and support for autonomy learning). Next, the review of the literature about Self-determination theory. Related theories and research studies come along with the discussion of each variable. Finally, the conclusion is drawn to clarify the studied variables. The purpose of this review is to provide an understanding of related theories and research and the rationale for the choice of the predictor and outcome variables.

2.1 Definitions of learning engagements

A number of theories and models of engagement were developed which laid the foundation to conduct research studies on school engagement, student engagement and classroom engagement (Smith, Sheppard, Johnson, & Johnson, 2005). Most of the researches conducted on secondary education, concluded that active engagement of students in school activities leads to greater academic achievement. Moreover, social interaction and teacher-student interaction also helpful to achieve good grades (Willms, 2003).

Engagement refers to the level of behavioral (e.g., attention) and emotional (e.g., interest, excitement) participation that a person exhibits when actively participating in an activity (Reeve, Jang, Carrell, Jeon, & Barch, 2004). However, in other research, engagement is also sometimes referred to as on-task conduct, which refers to overt student actions in the classroom or at home (for example, effort and perseverance with regard to schooling, involvement, and time on homework) (Lane & Harris, 2015; Raphael, Pressley, & Mohan, 2008; Ryan & Deci, 2000b). Engagement can be measured at an individual level (Reeve, 2012) or at group level such as the classroom (Reeve et al., 2004).

Learning engagement is an aspiration to enhance student's learning and refers to the active involvement of a student in a learning task (Christenson, Reschly, & Wylie, 2012). The basis of learning engagement is that all student activities can be concerned in an active cognitive process, and they are driven for learning environment and activities are important to them "By engaged learning, we mean that all student activities involve active

cognitive processes such as creating, problem-solving, reasoning, decision-making, and evaluation. In addition, students are intrinsically motivated to learn due to the meaningful nature of the learning environment and activities” (Kearsley & Shneiderman, 1998, p. 20).

Conner (2016) also defined the term engagement as the degree of responsiveness, curiosity, interest, attentiveness that students show during teaching and learning process which further led to increase the level of motivation that cause progress in their education. Basically, learning engagement indicates the student intellectual investment in learning and the students endeavor pointed towards learning, understanding, gain expertise and skills which is the main purpose of education to be promoted in the students (Newman & Schwager, 1992). Consequently, engagement refers to the vitality that has utilized to complete the task as well as it is intellectual investment that engage student to accomplish their work by utilizing their cognition (Shaari, Yusoff, Ghazali, Osman, & Dzahir, 2014).

2.1.1 Factor structure of learning engagements

Based on Kahu (2013, p. 12), there are four dominant research perspectives on student engagement: the behavioral perspective, which emphasizes student behavior and institutional practice; the psychological perspective, which defines engagement as an individual psycho-social process; the socio-cultural perspective, which emphasizes the critical role of the socio-political context; and the holistic perspective, which takes a broader view of engagement. Although, recently lots of studies have been always focused on three constructs in their empirical study as cognitive, behavioral and affective engagements (Conduit, Karpen, & Farrelly, 2016; Fredricks, Blumenfeld, & Paris, 2004; Kahu, 2013).

Affective engagement refers to emotions that is a main factor of engagement indicates students’ emotional reactions such as happiness, interest, enjoyment, values, students’ reactions towards teachers, curriculum content and class. Students reveals emotional engagement when they reflect emotional responses to learning activities (Fredricks et al., 2004). Students reveals emotional engagement when they reflect emotional responses to learning activities (Conner, 2016). Affective engagement refers to positive and negative reactions to teachers, class fellows and learning activities such as combination of positive emotions like students’ interest and happiness in class and negative emotions are boredom and anxiety (Günüç & Kuzu, 2014).

Behavioral engagement defined as behaviors such as effort, persistence, concentration, attention, asking questions, and participation in learning activities (Birch & Ladd, 1997). It also refers that how and to what extent the students are active, paying attention, putting effort and showing persistence, putting effort and showing persistence (Ellen A. Skinner, Kindermann, & Furrer, 2008). Moreover, Fredricks et al. (2004) also described behavioral engagement are observable behaviors that can easily be perceived by teacher, such as task achievement and involvement in learning activities

Cognitive engagements indicates self-regulation and use of learning strategies activities as well as in terms of self-regulation where students use self-regulating strategies to plan, monitor, and evaluate their cognition to gain mastery over task (Greene, 2015). According to Corno and Mandinach (1983) cognitive engagement refers to learners' effort and willingness to fulfill their learning activities by themselves that covered on time and efforts. Cognitive engagement is operationally defined by evaluating the amount in which students do homework, attend class, participate in extracurricular activities, or interact with teachers in general, as well as how motivated they appear while participating in group discussion (James J. Appleton, Christenson, Kim, & Reschly, 2006).

2.2 Definition of learning motivation

Learning motivation refer to some elements that boost up leaners' emotion in learning. It has been from the Latin that it means that "to move"(Weiner, 1992), basically what can lead learners to accelerate their actions with rationale idea via their purposes (Eccles, Wigfield, & Schiefele, 1998). In difference, motivation has considered as dependence variable causing by its elements was required need other motivator, such as learning climates, classroom management, teaching style, instructional strategies, school environments, leadership style and material supports as well. However, motivations can directly predict with learning outcomes as called independence variables (Reiss, 2012; Ryan & Deci, 2000a, 2020).

2.2.1 Factor-structures of learning motivations

Motivation was divided into two categories in self-determination theory: intrinsic motivation and extrinsic motivation. Intrinsic motivation develops when a task is done because it is intrinsically engaging or rewarding, whereas extrinsic motivation occurs when

something is done because it has a specific outcome. Intrinsically motivated encourages students to keep learning (Reiss, 2012; Ryan & Deci, 2000a, 2020).

Intrinsic motivation refers to the performance were activated by inherent satisfaction and while people have been motivating by challenge or fun. Intrinsic motivation is called as independent motivation behavior that enhanced humans become active, interested and joyful being. Not only, it can be a part of cognitive, social, and physical achievement as well as, it promoted knowledge and skills for humans to fulfill their intentions. The measurement of intrinsic motivation can consider as “free choice” that learners can show about their self-reported of enjoyment, or interest though some program of training course (Ryan & Deci, 2000a). As a result, intrinsic motivation can contribute to mastery learning, achievement of performance goals, and overall life’s happiness (Diseth & Samdal, 2014).

Extrinsic motivation refers to benefits received outside of the classroom, such as discipline, work stress, competition, assessment by teachers, or others (Coon & Mitterer, 2012; Ryan & Deci, 2020; Vallerand et al., 1992). Three elements of extrinsic motivation, including external regulation, introjection, and identification, are described by Vallerand et al. (1992) and Hayamizu (1997). Parents' and teachers' forces are examples of external factors that improved what is referred to as external regulation. Introduction refers to what their actions created in terms of reason, and identification refers to what their actions produced in terms of task value. Extrinsic motivation might therefore result in strict performance, dissatisfied attitudes, and the use of improper instructional methods (Corpus, McClintic-Gilbert, & Hayenga, 2009; Ryan & Deci, 2020). However, it has still been as a main component to improve learning outcome such as engagements, self-efficacy, and cognitive ability (S. Chan, Maneewan, & Koul, 2021b; S. Chan et al., 2021c; Reiss, 2012; Ryan & Deci, 2000a, 2020).

2.3 Definitions of instructional styles of teacher of English

Instructional style refers to teaching methodology that teacher support for student in learning process to achieve learning outcome or increase what teacher considered as intended learning input to improve efficiency of educational process in-class and out-class (Lee, 2001). In many ways that teacher can adapted to promote what they hope it will happen after their teaching and learning class. As well, English class, teacher of English

also required to prepare instruction style to ensure learners exist psychological needs to build, learning feasibility, and efficiency. However, this research study was proposed with self-determination theory to support in the teacher 's pedagogy. this theory contends that when students' fundamental needs for relatedness (i.e., a sense of belonging and connection with their teachers and peers), competence (i.e., the feeling of effectiveness and mastery learning), and autonomy (i.e., freedom or ownership in their learning) are satisfied, they are motivated to engage in learning. (Deci, Olafsen, & Ryan, 2017; Deci & Ryan, 2012, 2013).

2.3.1 Factor structure of instructional styles of teacher of English

Depended on various studies for learning context to promote learners can be satisfied with engagement, it constructed by three dimensions; involvement, structure and autonomy (S. Chan, Maneewan, & Koul, 2021a; S. Chan et al., 2021b, 2021c; Ryan & Deci, 2020). However, based on Jang, Reeve, and Deci (2010), only autonomy support and structure have been also adequate sponsors to promote learning engagement. Structure refers to how well-information were offered to learners who are be ensured can improve the positive academic outcome (Jang et al., 2010). Constructive feedback, explicit explanation with guidelines, instrumental supports were supported through structured teachers (Jang et al., 2010; Ryan & Deci, 2020). Hence, in this study, we chose support and feedback to adapt with.

Support and feedback refer to an instructional style that learners were treated with teacher's consultant (Taras, 2013). Learners' doubt can be clarified by teacher's advice or opinions to ensure explicit understanding or instruction with purposes of learning such as content knowledge and psychological needs such as motivation, self-efficacy, self-esteem, and engagement (S. Chan et al., 2021b, 2021c; Deci & Ryan, 2012). Furthermore, Heng (2014) stated that support and feedback is regarded as a distinctive construct on academic engagement and achievements. Low support and feedback might be dangerous for learning engagement (Crook et al., 2012). Moreover, for instrumental support, video lecture can be appropriate with this study as well. Video-lecture refers to an instructional style that learners will be offered the video-lesson for their study in-class and pre-class. Videos with explicit explanation, learner will be perceived in successful learning (Y. M. Chan, 2010). A dependable instructional design for teaching support is the video lecture. Setting up lessons using videos requires the teacher to be succinct and focused on the learning

objective, use the right viewpoints and voice of the teacher to explain focus points, bring to light key ideas and concepts with activation, increase interaction by going to speak in a dialogue and positive style, and integrate video in a setting that promotes active learning by using multimedia, loaded questions, or relevant and important assessment tasks (Brame, 2015). Additionally, Sablić, Mirosavljević, and Škugor (2021) looked for surveys with video-lecture that can show teachers or students how to study and advance in the classroom.

Autonomy refer to the freedom of learning for learners to motivate learning process and also it has known that as choice in learning for learner to complete their goal (Deci & Ryan, 2013; Kusurkar & Croiset, 2015). Teacher of English become as autonomous supporter in learning whatever learner ask for assistant. Teachers can offer for free choices that mean learners can make own decision in learning to choose what they think that can improve their learning goal as well as associated with learner's attitude, cognition, and perceptions (S. Chan et al., 2021b; Moon & Ke, 2020; Erika A. Patall & Zambrano, 2019; Ellen A Skinner & Belmont, 1993). As a result, autonomous learning can help learners acquire strong autonomy, which leads to them discovering what they call their decision via their opportunities and situations on their own. The information from the environment is processed to inform many choices on their times and spaces. Learners gain flexibility, lessen harmfulness, and develop intrinsic effort and self-determination to manage all aspects of their lives (Deci & Ryan, 2013).

2.4 Theoretical background of study

This researcher objective was to examine on teacher of English instructional styles (i.e., support for video lecture learning, support and feedback for learning, and support for autonomy learning), and learning motivations (i.e., extrinsic motivations and intrinsic motivations) are associated with learning engagement (i.e., affective engagement, behavioral engagement, and cognitive engagement). In support with this study, researcher used self-determination theory to clarify the association between each variable as bellow.

2.4.1 Self-determination theory

A heuristic theoretical framework known as "self-determiner theory" has been developed to investigate people's motivated behavior in a variety of scenarios, including educational settings (Ryan & Deci, 2000a, 2020). According to Self-determination theory, need supports strengthen intrinsic motivation and internalization that lead in higher

achievement, so although intending to regulate academic achievement directly through rewards, restrictions, and assessments generally fails to work, leading to decreased performance and motivation. Self-determination theory's studies indicate addressing students' basic psychological needs encourages well-being, a trend that is consistent across ages, race, and culture, and that rejecting needs causes suffering. Considering the variety of learners, basic need assistance is very essential, and they emphasize the especially key function of autonomy support towards creating equitable society. Self-determination theory asserts that persons have three fundamental psychological needs: competence, relatedness, and autonomy (Ryan & Deci, 2000a, 2020). Recent studies from various settings demonstrate the benefits of need supporting educational settings in catalyzing more autonomously learning motivations. So, this theoretical review three main factors of self-determination theory as following.

2.4.1.1 Autonomy

Autonomy is characterized by a sense of determination and ownership over one's activities (Ryan & Deci, 2000a). It really is promoted by perceptions of interest and value, and it is diminished by experiences of external control, complete tasks rewards or penalties. In order to encourage student autonomy, teachers must make an effort to comprehend, accept, and, whenever feasible respond to the opinions of their charges. Teachers additionally strive to provide students opportunity to take leadership and effort in their schooling through open-handed them relevant choices and assignments that can fire their interests. Whenever people demand something, they explain a convincing reason (Ryan & Deci, 2020). Choice is another factor that might enhance autonomy. According to Self-determination theory, when students have a feeling of choice, they perceive deeper ownership of events and total independence, which leads to more intrinsic motivation (Bao & Lam, 2008). However, not all types of choices are related with feelings of autonomy. There are sometimes meaningless choices, such as choosing among alternatives that an individual does not desire or choosing among options that have minor restrictions embedded with students (Ryan & Deci, 2006). On the other hand, if someone voluntarily accepts the worth of or is motivated to pursue the relevant behavior, they has no choices and somehow still feel autonomous (Ryan & Deci, 2020). Teachers can encourage autonomy by considering students' interests in addition to their choice. Students are also inclined to view them as more capable when they do that (Jang, Reeve, & Halusic, 2016). Researchers that looked into the structure and support of teacher autonomy in high schools

in the United States discovered that both students' perceptions of autonomy support and instructors' autonomy support predicted learning engagement (Jang et al., 2010).

2.4.1.2 Competence

Competence is defined as a sense of mastery, or the belief in one's ability to achieve and progress. Competence is effectively achieved in well-structured organizations that provide appropriate difficulties, positive feedback, and chances to advance (Ryan & Deci, 2020). If students have more control over educational outcomes, their emotions of competence are increased (Stroet, Opdenakker, & Minnaert, 2013). By giving structure, teachers can bolster students' fundamental psychological demand for competence. Organizing the learning environment does not equate to restricting students' ability to experiment or express their creativity. Based on the literature, Stroet et al. (2013) separate four characteristics of instructors' provision of structure. First, clarity is achieved by offering clear, comprehensive, and understood instructions. Second, offering students insightful and constructive comments. Third, giving students direction during class activities by, for instance, watching over their work or providing assistance when needed can give pupils structure. Fourth, teachers' support can provide pupils a sense of structure, which helps them feel like they have greater control over their academic progress. Teachers can motivate pupils, for instance, by setting high standards for their academic performance.

2.4.1.3 Relatedness

Relatedness is concerned with a sense of identity and connectedness. It is aided by the conveying of esteem and concern. Each of these three essential needs is regarded as detrimental to motivation and well-being (Ryan & Deci, 2020). According to (Baumeister & Leary, 2017) there are two key parts to the urge for relatedness or the need to belong. People require regular, conflict-free interpersonal contact that is ideally fulfilling and affectively beneficial. On the other hand, individuals must believe that their interpersonal connections are characterized by consistency, emotional closeness, and continued existence in the future. The demand for relatedness can be satisfied by social interaction or by becoming a part of a community or social group. Based on (Stroet et al., 2013) a teacher's interaction with students is insufficient to satiate the students' desire for interpersonal relatedness in a (secondary) educational context. However, instructors' level of participation in the classroom can have an impact on kids' emotions of relatedness at school. Relationship participation between the teacher and the learner is how relatedness is conceptualized (Reeve et al., 2004; Tessier, Sarrazin, & Ntoumanis, 2010). According to

Reeve et al. (2004) a teacher can demonstrate their commitment in the classroom by, among other things, investing time and effort, showing caring, and walking over to the pupils rather than remaining in the front during class.

2.5 Relationship between motivation and engagement

Self-determination theory, there were different motivational types are relevant to people. There is a continuum of motivation, from "amotivation" (lack of motivation for an action) to "intrinsic enthusiasm." A person is driven by themselves rather than by outside forces like pressure or rewards in the latter case, which is known as self-determined motivation (Ryan & Deci, 2000a; Tessier et al., 2010). Deci and Ryan (1985) identified four "extrinsically-regulated behaviors," differing in how much the motivation is self-determined, between the continuum of "amotivation" and "intrinsic motivation" (Ryan & Deci, 2000a).

The first type is called externally regulated motivation, which happens when someone takes an action to avoid other people-controlled penalties or to receive external rewards (Ryan & Deci, 2000a; Vansteenkiste & Ryan, 2013). Second, introjected motivation is referred a person is driven to act in a certain way in order to escape shame, worry, or to win the admiration of others (Ryan & Deci, 2000a). Third, regulation via identification become form of motivation, is more strongly related to autonomy since a person personally accepts the value of an action or standard, but may not find it fascinating or pleasurable (Ryan & Deci, 2000a; Vansteenkiste & Ryan, 2013). Forth, integrated regulation is most independent type of extrinsic motivation and is referred a person engages in a particular activity because it is consistent with his or her larger set of values and commitments (Ryan & Deci, 2000a; Vansteenkiste & Ryan, 2013).

Importantly, research based on SDT has demonstrated a continuous link between higher levels of self-determined motivation and favorable outcomes including greater well-being, better performance, greater perseverance, enhanced academic accomplishment, and increased engagement (Tessier et al., 2010; Vansteenkiste & Ryan, 2013). Engagement is a crucial factor in predicting students' academic learning, grades, achievement test results, retention, graduation, and academic resilience, among these outcomes (Pajares & Graham, 1999; Reeve, 2012; Reeve et al., 2004; E. Skinner, Furrer, Marchand, & Kindermann, 2008). Engagement is a complex concept including elements of behavioral, emotional, and

cognitive(Fredricks et al., 2004) . Reeve (2012) enhances agentic involvement as a fourth dimension.

2.6 Empirical Studies

According to Tessier et al. (2010), provision for fundamental psychological needs is a relationship between motivation and engagement. Students' self-determined motivation and engagement rose in classrooms when professors effectively modified their teaching methods to better accommodate students' psychological needs. A pre-test post-test design was employed in the study by Tessier et al. (2010) over the course of three weeks. The effectiveness of the teaching method was evaluated, as well as the involvement of the students and the students' self-reported psychological needs fulfilment and motivation. It was thought that the cause of the favorable student outcome was teachers' ability to successfully modify their motivating style as determined by the post-test. S. Chan et al. (2021c) studied academic engagement of pre-service teachers was investigated using learning motivation as a moderator of effective instructional practices (autonomy support, instructional clarity, support and feedback, and support for cooperative learning). 601 second-year pre-service instructors agreed to participate in the data collection. Using structural equation modeling, it was shown that pre-service teachers' perceptions of teacher educators' instructional styles are significantly related to their intrinsic motivation and academic engagement. However, according to Liu, Yao, Li, and Li (2021) support for autonomy learning has no effective on cognitive engagement. Teacher autonomy support can improve student engagement in learning activities, but repeated failure or high pressure can lead to unconstructive goal beliefs and negative emotional experiences, underestimating their roles. Positive motivational beliefs and accumulated positive experiences in students may influence their academic success, but longitudinal data is needed for further examination. Reeve et al. (2004) have specifically looked at the relationship between teachers' observed teaching styles and students' observed group involvement. They discovered that teachers exhibited more autonomy-supportive behavior following training, which led to greater student engagement, in their experimental research with a delayed-treatment control group. Moreover, E. Skinner et al. (2008) looked at the relationship between students' involvement and teachers' motivating methods. However, at the start of the academic year, they discovered that students who felt both internal and external pressure (poor autonomy) were becoming more emotionally and behaviorally

disengaged. Moreover, Furtak and Kunter (2012) studied in 7th-grade science class on motion, this study explores how procedural and cognitive autonomy-supportive teaching affects student learning and motivation. In comparison to students in high cognitive autonomy-supportive conditions, the study indicated that students in low cognitive autonomy-supportive situations learnt more, perceived more choice, and gave instruction higher ratings. The results are discussed in the perspective of reforming science education. Otherwise, James J Appleton, Christenson, and Furlong (2008) explained students who are more autonomously driven are more engaged, according to research conducted in the context of physical education, whereas students who feel unmotivated or under external pressure to participate in physical education activities are less interested. The purpose of the current study is to close this gap by establishing a clear correlation between instructors' basic psychological needs for support and their students' motivation and involvement.

Asserted by Shin, Kim, Hwang, and Lee (2018), among Korean college students, the study examined the effects of intrinsic motivation for volunteering and illuminating feedback on the formation of life meaning. Results demonstrated that constructive criticism had a good impact on student's commitment to their goals and social responsibility, especially those with poor motivation. Student purpose confidence was predicted favorably by intrinsic motivation and feedback. It is imperative to offer genuinely driven experiences and illuminating feedback that fosters competence throughout service work to boost life-purpose development. Additionally, it is not apparent if social support affects transfer directly or through the motive to transfer. While some models contain direct connections between social support and training transfer, others make the assumption that motivation to transfer fully mediates the influence of social support on transfer. Finer sub-dimensions of social support are specified by some models, including supervisor support, peer support, supervisor punishments, and feedback/coaching. The connections between social support, transfer motivation, and training transfer were studied in a meta-analysis. The biggest predictor of motivation to transfer was peer support, and the strongest predictor of training transfer was feedback/coaching (Reinhold, Gegenfurtner, & Lewalter, 2018). However, based on Wang and Zhang (2020) perceived teacher feedback has moderating effects on learning engagement. High frequency, difficulty, and diversity assessment factors improve students' engagement, while feedback without these factors may decrease or have no impact. Learning engagement is moderated by perceived instructor feedback. Moreover,

praise at the personal level is ineffective in enhancing learning as it rarely addresses feedback questions (Black & Wiliam, 1998; Hattie & Timperley, 2007).

Based on Yang, Zhang, Pi, and Xie (2021) The study investigated the connection between learning from video lectures and pre-interpolated questions. 63 college students were given the option of seeing instructional videos with interpolated pre-questions or without them. The findings indicated that pre-questions were more beneficial for pupils with high accomplishment motivation than for those with low motivation. The fixation duration and transfer were longer for students with high accomplishment motivation in the pre-question condition compared to the no-question condition. Students with low achievement did not show these disparities. According to the research, interpolated pre-questions in video learning are advantageous for highly motivated students, however the advantage is felt more in terms of transfer than in terms of retention. Moreover, according Pi, Zhang, Zhang, Gao, and Li (2023), the effects of motivator compositions on video lecture interaction and learning performance were regulated by the students' prior knowledge. In the temporoparietal junction-inferior parietal lobule and anterior prefrontal-anterior prefrontal cortex during co-explaining, high motivation composition increased interpersonal brain synchronization (IBS), whereas low prior knowledge composition decreased IBS in the supramarginal gyrus-anterior prefrontal cortex. The results indicate that teachers should support high motivation students in co-viewing video lectures and support students with limited prior knowledge to improve cognitive communication, argumentation, and regulating-related behavioral sequences. In addition, Costley and Lange (2017) investigated the relationships between media diversity, LSEI, and FBI in e-learning environments. It surveyed 88 students in South Korea, focusing on cyber university classes. Results showed no relationship between media diversity and viewership, but both lecture viewership and media diversity were positively correlated with LSEI. However, neither media diversity nor viewership was positively correlated with FBI. Ultimately, LSEI was positively correlated with FBI. This suggests that delivering video lectures through diverse media forms can enhance the learning experience and improve student satisfaction, engagement, and interest in online courses. However, according to Walker and Koralesky (2021) when learner are lack of peer- and -teacher interaction, they were lead to lower in affective engagement with video lecture support.

2.7 Conceptual Framework

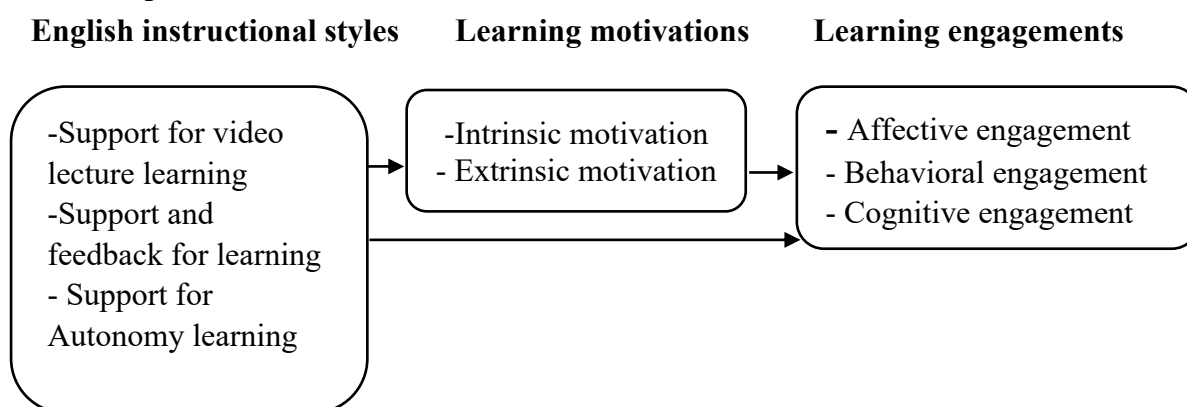


Figure 1.2. The Relationship Between the independent and dependent variables of the study

According to several empirical researches, teacher of English instructional styles, learning motivation, and learning engagement completed in many different countries, subjects and grades. Moreover. The research tools for measuring are also adapted from different scholars, and previous research articles. In this study, researcher is going to conduct teacher of English instructional styles, leaning motivation, and learning engagement in English for twelves grade students in rural high school in Cambodia. As well, a laten variable is “support for video lecture learning” were seemed some research studies contradictorily adapted until now with engagement (Walker & Koralesky, 2021).

2.8 Summary of the research study

In summary of research study was focus on how to improved learning engagement (i.e., affective, behavioral and cognitive) through effective teacher of English instructional styles (i.e., support for video lecture learning, support and feedback for leaning and support for autonomy learning), and learning motivation (i.e., intrinsic motivation, extrinsic motivation). Learning engagement is an aspiration to enhance student’s learning and refers to the active involvement of a student in a learning task. In addition, it is measured by three factors; affective engagement, behavioral engagement, and cognitive engagement). Affective engagement refers to emotions that is a main factor of engagement indicates students’ emotional reactions such as happiness, interest, enjoyment, values, students’ reactions towards teachers, curriculum content and class. Students reveal emotional engagement when they reflect emotional responses to learning activities. Behavioral engagement defined as behaviors such as effort, persistence, concentration, attention, asking questions, and participation in learning activities. Cognitive engagement refers to

learners' effort and willingness to fulfill their learning activities by themselves that covered on time and efforts. Learning motivation refer to some elements that boost up learners' emotion in learning. Learning motivation was divided into two categories in self-determination theory: intrinsic motivation and extrinsic motivation. Intrinsic motivation refers to internal motivator to complete the learning task like understanding the benefit of doing task, mastery learning, and goal. Extrinsic motivation refers to external motivators to complete learning task like, reward, punishment, and discipline. Teacher of English instructional styles refer to some techniques that teachers or educators set up to support for learners. Learning structure, and autonomy support were adapted with teacher of English instructional styles that grounded from self-determination theory. Learning structure refers to how to support students by teacher with explicit instruction like offering with learning techniques such as support and feedback for learning, and support video lecture for learning. Autonomy support refers to the amount of freedom that were offered by teacher for student in making decision for doing task. The last, that can be linked each factor to create a new model for researcher study and can look for a new way to solve the problem with leaning engagement.

CHAPTER 3

METHODOLOGY

More in-depth information about the study's research techniques is included in this chapter. Research design, site, population, sample size, and sampling method for the research, research constructs, research instruments psychological research instrument procedures for collective data, the method used to get it, validity, reliability, research ethics, and data analysis.

3.1 Research design

This study was adapted with quantitative research design, as correlational study that aims to predict and explain the relationship between teacher of English instructional styles, learning motivation, and learning engagement. This research examines the relationship between teacher of English instructional styles with twelfth grade students' learning motivation, and learning engagement in English subject.

3.2 Site, population, sample size and sampling method

The population of this study is high school students who have been studying twelfth grades in Cambodia. Sample size of this study was collected in Kampong Cham province of Cambodia, and there are 51 items that was measured from eight main constructs. Hence, an accurate sample size of this study was at least 510 samples. Simple random sampling was utilized to select participate from students have been studying in twelfth grades.

3.3 Research constructs

The research study consisted of eight observed variables which are from latent variables. There were endogenous latent variables such as teacher of English instructional styles, there are three sub-constructs: support for video-lecture. support and feedback for learning, support for autonomy learning. For learning motivation, was a mediator, there were two sub-constructs; intrinsic motivation and extrinsic motivation, and there were exogenous latent variables such as learning engagement, there were three sub-constructs: affective engagement, behavioral engagement, and cognitive engagement.

3.4 Research instrument

This study used psychological survey questionnaires were adapted from previous studies to measure for teacher of English instructional styles (i.e., support for video lecture learning, support and feedback for learning, support for autonomy learning) learning motivation (i.e., intrinsic motivation and extrinsic motivation) and learning engagement (i.e., affective engagement, behavioral engagement, and cognitive engagement).

3.4.1 Psychological research instrument

For this research tools, researcher separated into two parts:

- 1) Part 1: Three questions were asked for individual information of participants such as gender, age, field of study.
- 2) Part 2: 51 Items self-reported questions utilizing a five-point Likert scale 1 (“strongly disagree”) and 5 (“strongly agree”) were adapted to evaluate each observed variable in the research model.

For sources of research tools, researcher adapted from different previous studies as:

- 1) Teacher of English instructional styles
 - a. Support video-lecture learning was adapted from Long, Logan, and Waugh (2016) and there are 7 items.
 - b. Support and feedback for learning was adapted from Heng (2014) and there are 7 items
 - c. Support for autonomy learning was adapted from Simon and Salanga (2021) and there are 7 items.
- 2) Learning motivation
 - a. Intrinsic motivation was adopted from Pintrich (1991) are there are 6 items
 - b. Extrinsic motivation was adopted from Pintrich (1991) are there are 5 items
- 3) Learning engagement
 - a. Affective engagement was adopted from Fredricks, Blumenfeld, Friedel, and Paris (2005) and there are 6 items
 - b. Behavioral engagement was adopted from Fredricks et al. (2005) and there are 5 items

- c. Cognitive engagement was adopted from Fredricks et al. (2005) and there are 8 items.

3.4.2 Development the quality of psychological research instruments

Although this study tool was adapted from earlier studies, a researcher was still needed to validate it so that it would work in different circumstances. Measures of each subscale of the instructional styles used by teacher of English, including support for video-lecture learning, support and feedback for learning, support for autonomy learning were used to collect the data to predict learning motivation such as intrinsic and extrinsic motivation, and learning engagement including affective engagement, behavioral engagement, and emotional engagement. To change these subscales, translation and back-translation technique was employed by Behling and Law (2000). Additionally, the concept reliability and validity were ensured using factor analysis and correlation statistics. These are the steps to do in order to improve the research instrument.

Step 1: In this step, the related theories and empirical studies were reviewed in order to operationalize definitions of keywords. Then researcher adopted research instruments allowing the definitions of keywords. After, researcher try to impose this instrument can be suited with high school student level and Cambodia context with English course. Not only, to make sure that this tool can be strongly strengthened in face validity, researcher invited for two researchers and two bilingual teachers of English to check it. Explicitly, we begun using translation methods from (James J Appleton et al., 2008). First, we translated the original items to English version. Second, we back-translated into Khmer versions. The last, we compared between English version and Khmer version to ensure linguistic meaning.

Step 2: In this step, we use letter-representatives for three main constructs and eight sub-constructs as below:

TEIS	refers to	Teacher of English Instructional Styles
SVL	refers to	Support for Video-lecture Learning
SFL	refers to	Support and Feedback for Learning
SAL	refers to	Support for Autonomy Learning

LMT	refers to	Learning Motivations
ILM	refers to	Intrinsic Learning Motivation
ELM	refers to	Extrinsic Learning Motivation
LEM	refers to	Learning Engagements
AEM	refers to	Affective Engagement
BEM	refers to	Behavioral Engagement
CEM	refers to	Cognitive Engagement

Step 3: In this step, to check construct reliability, researcher used each item with fifty-one high school students in twelfth grades. They confirmed with this study in self-reported questionnaires and rated each report on a 5-point Likert scale ranging from 1 to 5. That one is the lowest satisfaction ("strongly disagree") and five is the highest satisfaction ("strongly agree"). The last, Cronbach's Alpha coefficient statistics was used to check the construct reliability and indicated results in appropriateness of each item. Support for video-lecture .732, support and feedback for learning .797, support for autonomy learning. 754, intrinsic motivation.676, extrinsic motivation.764, affective engagement.886, behavioral engagement.721, and cognitive engagement.843.

Step 4: In this step, researcher sought for five hundreds and ten twelfth grades students form high schools offering their self-report on survey questionnaires we required to explain for normal distributions. Skewness and Kurtosis descriptive statistics were used to indicate normal distribution of data. if Skewness's data was respected between -1 and + 1 and Kurtosis's data was respected between -1.96 and +1.96, they were considered as fit with the most common distributions (Joe F. Hair, Howard, & Nitzl, 2020). In this study found that descriptive statistics value of Skewness and Kurtosis raged from -0.14 to +0.95, and -.30 to +1.87 that shown data was normal distributions. On the other hand, for development the multicollinearity of data were used the criteria of T. Kline (2005) that proposed that intercorrelation between items were higher than 0.85.

As below in table 3.1 presented correlations among all the subscales in the model. All variables had very low to high correlations (from 0.171 to 0.671), which allowed us to

eliminate multicollinearity problems (R. B. Kline, 2015). Perceptions of support for video-lecture, support and feedback for learning, and support for autonomy learning were positively correlated with perceptions of intrinsic motivation, extrinsic motivation and with perceptions of affective, behavioral, and cognitive engagement. Perceptions of intrinsic motivation, extrinsic motivation were correlated positively with perceptions of affective, behavioral, and cognitive engagement.

Table 3.1 Descriptive statistics and Pearson's correlation between latent variables (N = 510)

Variables	<i>TEIS</i>			<i>LMT</i>		<i>LEM</i>		
	<i>SVL</i>	<i>SFL</i>	<i>SAL</i>	<i>ILM</i>	<i>ELM</i>	<i>AEM</i>	<i>BEM</i>	<i>CEM</i>
<i>SVL</i>	-							
<i>SFL</i>	.471**	-						
<i>SAL</i>	.438**	.671**	-					
<i>ILM</i>	.446**	.489**	.518**	-				
<i>ELM</i>	.343**	.237**	.300**	.367**	-			
<i>AEM</i>	.332**	.393**	.539**	.490**	.184**	-		
<i>BEM</i>	.304**	.416**	.465**	.418**	.171**	.629**	-	
<i>CEM</i>	.403**	.438**	.445**	.527**	.230**	.573**	.541**	-
<i>Mean</i>	3.95	4.05	3.85	4.03	3.90	3.74	3.79	3.76
<i>S. D</i>	0.57	0.58	0.59	0.56	0.72	0.64	0.57	0.57
<i>Skewness</i>	-0.81	-0.95	-0.52	-0.52	-0.65	-0.14	-0.19	-0.68
<i>Kurtosis</i>	1.63	1.87	0.31	0.30	0.44	-0.30	0.01	1.18

** $p < 0.01$.

SVL = Support video lecture learning, SFL = Support and feedback for learning, SAL = Support for autonomy learning, ILM = Intrinsic learning motivation, ELM = Extrinsic learning motivation, AEM = Affective engagement, BEM = Behavioral engagement, CEM, Cognitive engagement

Step 5: After a type of factor analysis statistics were used, is Exploratory Factor Analysis (EFA) to define the relate items in each construct. EFA's criteria were used to check in construct validity such as Eigenvalues, Factor loading, and Communalities data that use in SPSS statistic program. All items can be kept in the measure if some of them respected on these criteria, such as Eigenvalues of upper 1.00, Factor loadings of upper 0.45 and Communalities of upper or balance 0.45(Floyd & Widaman, 1995). In this study

found that most of construct was reported that EFA's data were eigenvalues from 1.09 to 12.26, factor loading from 0.46 to .76, and communalities from .47 to .66 respectively.

Table 3.2 *EFA's results of all observed variables with all latent variables (N510)*

Items	<i>Factor loadings</i>								<i>Communalities</i>
	<i>SVL</i>	<i>SFL</i>	<i>SAL</i>	<i>ILM</i>	<i>ELM</i>	<i>AEM</i>	<i>BEM</i>	<i>CEM</i>	
SVL1	.61								.52
SVL2	.52								.57
SVL3	.69								.60
SVL4	.73								.63
SVL5	.58								.49
SVL6	.51								.48
SVL7	.50								.61
SFL2		.70							.62
SFL3		.52							.39
SFL4		.65							.56
SFL5		.61							.52
SFL6		.67							.54
SFL7		.62							.57
SAL4			.63						.61
SAL5			.55						.57
SAL6			.56						.59
ILM1				.46					.47
ILM2				.52					.53
ILM3				.56					.54
ILM4				.59					.49
ILM5				.66					.58
ILM6				.57					.53
ELM1					.75				.65
ELM2					.74				.60
ELM3					.48				.47
ELM4					.72				.62
EML5					.76				.63
AEM1						.63			.64
AEM2						.70			.66
AEM3						.76			.66
AEM4						.70			.64
AEM5						.69			.61
BEM1							.59		.49
BEM4							.47		.66
BEM5							.49		.63
CEM4								.57	.53
CEM6								.70	.62
CEM7								.50	.53
CEM8								.50	.53

Eigenvalues	2.47	12.26	1.15	1.55	1.92	3.16	1.09	1.64
% Of Variance	4.83	24.04	2.25	3.05	3.76	6.20	2.14	3.22
Cumulative %	35.07	24.04	52.77	45.09	38.82	30.23	54.91	42.04

SVL = Support video lecture learning, SFL = Support and feedback for learning, SAL = Support for autonomy learning, ILM = Intrinsic learning motivation, ELM = Extrinsic learning motivation, AEM = Affective engagement, BEM = Behavioral engagement, CEM, Cognitive engagement

Step 6: According to Joe F. Hair et al. (2020) ensured that convergent and discriminant validity are used to determine construct validity by analyzing and matching Average Variance Extracted (AVE), Maximum Shared Variance (MSV) and Average Shared Variance (ASV). The acceptable discriminant validity of AVE's data required more than MSV and ASV, and higher or balance of 0.5 was indicated acceptable convergent validity. As well, construct or composite reliability (CR) suggested threshold of 0.70 is considered the acceptable consistency which clarified a group of measured items share high proportion in measure of variance in the same construct and the last, standardized loading is proposed threshold of 0.50 to fit and test model of this construct with Cambodian high school educational level and contexts. In this study found that all constructs are between .52 and 0.83 of CR that indicated acceptable construct validity. However, in this study also found that all constructs are between .30 and 0.50 of AVE that indicate low convergent validity and most of constructs are lower of AVE than MSV, but higher than ASV that indicated between low and acceptable discriminant validity.

Moreover, Teacher of English Instructional Styles was measured by three subconstructs such as; support for video-lecture, support and feedback for leaning and support for autonomy learning support. Support for video lecture learning was measured by 7 items, Support and feedback for leaning was measured by 6 items and support for autonomy learning was measured by 3 items. Each item had Cronbach's alpha value of 0.78, 0.80, and 0.66, showing a high degree of internal consistency. With mediators measuring, leaning motivation was measured by two subconstructs such as; intrinsic motivation, and extrinsic motivation. Intrinsic motivation was measured by 6 items, extrinsic motivation was measured by 5 items. Each item had Cronbach's alpha value of 0.75, and 0.78 showing a high degree of internal consistency. Lastly, endogenous variables,

learning engagement was measured by three subconstructs such as; affective engagement, behavioral engagement, and cognitive engagement. Affective engagement was measured by 5 items, Behavioral engagement was measured by 3 items, and cognitive engagements was measured by 4 items. Each item had Cronbach's alpha value of 0.86, 0.66 and 0.68 showing a high degree of internal consistency respectively.

Table 3.3 *Cronbach's alpha, CR, AVE, MSV, and ASV of all latent constructs*

<i>Latent constructs</i>	<i>α</i>	<i>CR</i>	<i>AVE</i>	<i>MSV</i>	<i>ASV</i>
1. Support for video-learning	.783	0.80	0.50	0.35	0.26
2. Support and feedback for learning	.781	0.78	0.50	0.49	0.29
3. Support autonomy learning	.786	0.6	0.34	0.49	0.3
4. Intrinsic learning motivation	.751	0.73	0.32	0.41	0.34
5. Extrinsic learning motivation	.778	0.82	0.50	0.21	0.11
6. Affective engagement	.836	0.83	0.50	0.64	0.33
7. Behavior engagement	.662	0.52	0.30	0.64	0.36
8. Cognitive engagement	.813	0.65	0.40	0.58	0.28

Confirmatory factor analysis was calculated by M-plus statistics program to ensure this model can fit with empirical data. There were some criteria of confirmatory factor analysis statistics; such as Normed Chi-square = $(\chi^2) / df$ (degree of freedom) is higher zero or equivalent, statistically significant p-values is smaller than .001 , Comparative Fit Index values (CFI) is higher than .92 , Tucker Lewis Index values (TLI) is larger than .92 , Standardized Root Mean Residual values (SRMR) is equivalent or less than .08 and, Root Mean Square Error of Approximation (RMSEA) value is less than .07, when research instrument was measured with further 30 items and number of samples are more than 250 (Joseph F. Hair, 2019). In this study found that $(\chi^2) = (655,510) = 1114.628, p < .001$, CFI = .93, TLI.92, SRMR = 0.045, RMSEA, 0.037 which suggests that the eight subscales could match the 12grade student's context in Cambodia.

3.5 Data collection

Ethical conduct is essential for the research. It shows the value as a researcher. In supporting for this study, data collection was gathered through surveying from high school students of Cambodia by using self-report questionnaire. The university's Board of Ethics

approved this study. Permission letter was asked to collaborate from school principals at high school. Volunteered students who participated in this study, were treated by given survey questionnaire.

3.6 Data analysis

Objective 1: to study the relationship between teacher of English instructional styles with learning motivation, and learning engagement. In the object we use correlation statistic to examine intercorrelation between constructs. $0.8 \leq r \leq 1.0$ very high correlation, $0.6 \leq r \leq 0.79$ high correlation, $0.4 \leq r \leq 0.59$ moderate correlation, $0.2 \leq r \leq 0.39$ low correlation, and $0 \leq r \leq 0.19$ very low correlation (Selvanathan, Jayabalan, Saini, Supramaniam, & Hussin, 2020)

Objective 2: to examine aspects of teacher of English instructional styles associate with learning motivation, and learning engagement. This objective is to investigate how perceptions teacher of English instructional styles were associated with twelfth grade students' learning motivation and learning engagement, structural equation modelling was conducted. Model fit was judged based on the values of chi-square (χ^2) Comparative Fit Index (CFI), Tucker–Lewis Index (TLI), Standardized Root Mean Squared Residual (SRMR), and Root Mean Squared Error of Approximation (RMSEA) (Joseph F Hair, Risher, Sarstedt, & Ringle, 2019; Hu & Bentler, 1999; R. B. Kline, 2015). Joseph F Hair et al. (2019) suggests that, with sample size of over 250 and measured variables of 30 or more, the characteristics of model fit should be chi-square with significant p values, CFI or TLI of above 0.92, SRMR of 0.08 or less with CFI above 0.92, and RMSEA of less than 0.07 with CFI of 0.92 or higher. CFI of 0.96 or higher and SRMR of 0.10 or less never reject a correct model (Hu & Bentler, 1999). CFI exceeding 0.94 and SRMR of less than 0.06 demonstrate excellent fit; CFI of 0.90–0.94 and SRMR of less than 0.06 indicate excellent fit; and CFI of 0.90–0.94 and SRMR of 0.06–0.10 are indicative of acceptable fit (Jöreskog, Sörbom, & Du Toit, 2001). RMSEA of less than 0.05 indicates excellent fit and RMSEA below 0.08 demonstrates acceptable fit (R. B. Kline, 2015). To address our research questions, we assessed the direct path coefficients between three subscales of instructional styles, two subscales of learning motivation, and three subscales of learning engagement.

CHAPTER 4

DATA ANALYSIS AND RESULT

The current study was aimed investigating the relationship and association perceptions of teacher of English instructional styles with twelfth grade students' learning motivation, and learning engagement, Hence, the results for this study are presented in two parts.

4.1 Results

There were two research questions. Question 1 was asked to see how measures of instructional styles, learning motivation, learning engagement were related with each other. Questions 2 was addressed to see how aspects of instructional styles learning motivation associated with learning motivation and learning engagement, respectively. Correlation analysis was carried out with Mplus 7 software (Muthén & Muthén, 1998–2012)

Research question 1: What is the relationship between measures teacher of English instructional styles, learning motivations and, learning engagement?

Table 4.1 presents correlations among all the subscales in the model. All variables had very low to moderate correlations (from 0.184 to 0.585), which allowed us to eliminate multicollinearity problems (R. B. Kline, 2015). Perceptions of support for video lecture learning, support and feedback for learning, and support for autonomy learning were positively correlated low to moderate (from 0.353 to 0.512), perceptions of intrinsic motivation and extrinsic motivation were low positively correlated (0.367), and perceptions of affective, behavioral, and cognitive engagement were positively moderate (from 0.475 to 0.585). Moreover, perceptions of support for video-lecture learning, support and feedback for learning, and support for autonomy learning were positively correlated with perceptions of intrinsic motivation and extrinsic motivation low to moderate (from 0.208 to 0.479), and perceptions of affective, behavioral, and cognitive engagement low to moderate (from 0.280 to 0.465). Perceptions of intrinsic motivation, extrinsic motivation were correlated positively with perceptions of affective, behavioral, and cognitive engagement very low to moderate (from 0.184 to 0.490).

Table 4.1 *Descriptive statistics and Pearson's correlation between latent variables (N=510)*

<i>Variables</i>	<i>TEIS</i>			<i>LME</i>		<i>LEM</i>		
	<i>SVL</i>	<i>SFL</i>	<i>SAL</i>	<i>ILM</i>	<i>ELM</i>	<i>AEM</i>	<i>BEM</i>	<i>CEM</i>
<i>SVL</i>	-							
<i>SFL</i>	.452**	-						
<i>SAL</i>	.353**	.512**	-					
<i>ILM</i>	.446**	.479**	.445**	-				
<i>ELM</i>	.343**	.210**	.208**	.367**	-			
<i>AEM</i>	.332**	.397**	.465**	.490**	.184**	-		
<i>BEM</i>	.329**	.404**	.397**	.435**	.221**	.585**	-	
<i>CEM</i>	.326**	.327**	.280**	.475**	.214**	.475**	.499**	-
<i>Mean</i>	3.95	4.07	3.78	4.03	3.90	3.74	3.83	3.86
<i>S. D</i>	0.57	0.62	0.70	0.56	0.72	0.64	0.60	0.61
<i>Skewness</i>	-0.81	-0.99	-0.66	-0.52	-0.65	-0.14	-0.33	-0.75
<i>Kurtosis</i>	1.63	1.67	0.58	0.30	0.44	-0.30	0.49	1.54

Note: ** $p < 0.01$.

SVL = Support video lecture learning, SFL = Support and feedback for learning, SAL = Support for autonomy learning, ILM = Intrinsic learning motivation, ELM = Extrinsic learning motivation, AEM = Affective engagement, BEM = Behavioral engagement, CEM, Cognitive engagement

Research question 2: Which aspects of teacher of English instructional styles are associated with learning motivations, and learning engagement?

Figure.4.1 presents the standardized path coefficients for the final model with significant paths only. In this model, perceptions of learning motivation mediate the relationship between perceptions of instructional styles and perceptions of learning engagement. The overall fit of the final model was excellent, $\chi^2 (656, 510) = 1126.110$, $p < .001$, CFI = 0.93, TLI = 0.92, SRMR = 0.045, and RMSEA = 0.037. The model accounted for a large portion of the variance in the outcomes ($R^2 = 0.50$ and 0.18 for intrinsic

motivation and extrinsic motivation, respectively; $R^2 = 0.48, 0.44$, and 0.43 for affective, behavioral, and cognitive engagement, respectively).

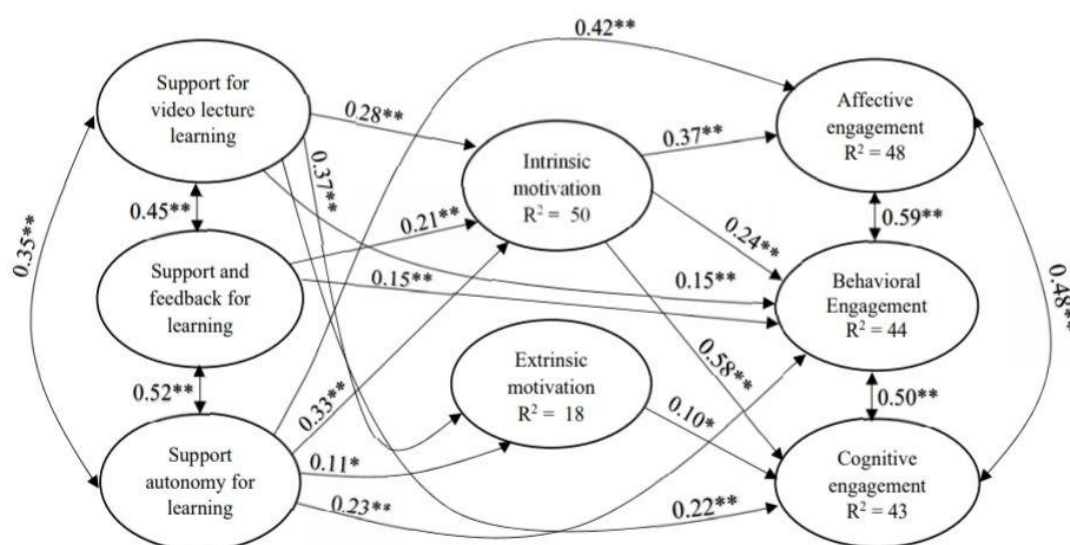


Figure 4.1. Standardized coefficients for model of twelfth grade students' learning motivation mediating the relations between their perceptions of instructional styles and their learning engagement (N = 510). Note: $*p < .05$; $**p < .01$

Table 4.2 presents the significant direct and indirect effects of instructional styles on learning motivation and learning engagement. As shown in Table 4.2, the perception of support for video-lecture, support and feedback for learning, and support for autonomy learning was directly associated with twelfth grade students' intrinsic learning motivation ($\beta = 0.28$), ($\beta = 0.21$), and ($\beta = 0.33$). Moreover, support for video-lecture was directly associated with twelve grade students' extrinsic learning motivation ($\beta = 0.37$). This this also found that the perception of support video-lecture for learning directly associate with behavioral engagement ($\beta=0.15$), and cognitive engagement ($\beta = 0.22$). Support and feedback for learning significant directly effect on behavioral engagement ($\beta = 0.15$). Support for autonomy learning was directly associated with affective engagement ($\beta = 0.42$) and behavioral engagement ($\beta = 0.23$).

Among the three measures of instructional styles, support for autonomy learning was the strongest predictor of intrinsic learning motivation and the most important determinant of affective. Support video lecture was the strongest predictor of extrinsic leaning motivation.

Table 4.2 *SEM result: Direct, indirect and total association for Figure 4.1*

Effects	Standardized coefficient (β)		
	direct	indirect	total
On intrinsic learning motivation			
Support for video lecture learning	.277**	-	.277**
Support and feedback for learning	.214**	-	.214**
Support for autonomy learning	.333**	-	.333**
On extrinsic learning motivation			
Support for video lecture learning	.374**	-	.374**
Support and feedback for learning	-	-	-
Support for autonomy learning	.113*	-	.113*
On affective engagement			
Intrinsic motivation	.356**	-	.356**
Extrinsic motivation	-	-	-
Support for video lecture learning	-	.098**	.098**
Support and feedback for learning	-	.078**	.078**
Support for autonomy learning	.421**	.113**	.534**
On behavioral engagement			
Intrinsic motivation	.241**	-	.241**
Extrinsic motivation	-	-	-
Support for video lecture learning	.148*	.077**	.224**
Support and feedback for learning	.153*	.051*	.204*
Support for autonomy learning	.229**	.083**	.312**
On Cognitive engagement			
Intrinsic motivation	.575**	-	.575**
Extrinsic motivation	.104*	-	.104*
Support for video lecture learning	.223**	.124**	.347**
Support and feedback for learning	-	.126**	.126**
Support for autonomy learning	-	.181**	.181**

Note: * $p < 0.05$; ** $p < 0.01$

CHAPTER 5

DISCUSSION

As previously mentioned in Chapter 1, the purpose of this study was to examine the relationship between perceptions of teacher of English instructional styles, learning motivation, and learning engagement. In this chapter, discussion, limitations and recommendations for future research, and conclusion and suggestions for practical implications are provided.

5.1 Discussion

In this study, we examined the relationship between perceptions of teacher of English instructional styles (i.e., support for video lecture learning, support and feedback for learning, and support for autonomy learning) with twelfth grade students' learning motivation (i.e., intrinsic engagement and extrinsic engagement), and learning engagement (i.e., affective engagement, behavioral engagement, and cognitive engagement). As previously reviewed, some studies have examined how these instructional styles influence students' learning motivation, and learning engagement. Even rarer is the investigation into the association between twelfth grade students' learning motivation, and learning engagement. The current study examined the relationship between perceptions of teacher of English instructional styles with twelfth grade students' learning motivation, and learning engagement. As mentioned in the literature review, these constructs have scarcely been assessed in the education context, especially in developing countries like Cambodia. However, this research produced satisfactory results.

5.1.1 Effects on learning motivation

We found teacher of English instructional styles significantly associate with twelfth grade students' learning motivation. We found that support for video lecture learning, support and feedback for learning, and support autonomy for learning exert positive influences on intrinsic learning motivation, and only support for video lecture learning and support autonomy for learning exert positive influences on extrinsic learning motivation. It suggests that twelfth grade students are intrinsically engaging and encouraging to keep learning, and become active, interested, joyful, and are more likely to learn towards mastery learning, challenging tasks, and learning satisfaction in classes where their English teachers provide support video lecture learning, support and feedback for learning, as well as support their autonomy in learning (Reiss, 2012; Ryan & Deci, 2000a, 2020). When teachers of

English give support video lecture for learning, students have more discipline, competition, external regulation and improving learning outcome, engagement, self-efficacy and cognitive ability (Coon & Mitterer, 2012; Ryan & Deci, 2020; Vallerand et al., 1992). Many previous studies also found instructional styles are associate with leaning motivation for school and college contexts (Bao & Lam, 2008; S. Chan et al., 2021c; Fredricks et al., 2004; Jurik, Gröschner, & Seidel, 2014; Lazarides, Dietrich, & Taskinen, 2019; Erika A Patall, Dent, Oyer, & Wynn, 2013) instructional styles are associate with leaning motivation for school and college contexts. However, support for autonomy learning was the strongest predictor of intrinsic motivation among these instructional styles. This is since when teacher of English offered twelfth grade students support for autonomy learning, their competence need was best supported in that one's need for competence is best satisfied in a well-structured context that emphasizes positive autonomy learning (Ryan & Deci, 2020). If so, twelfth grade students are intrinsically motivated to learn when their need for competence or effective learning is fulfilled (Ryan & Deci, 2000a, 2020). However, obviously, positive support and feedback factors hardly ever associated with negative motivations, but just develop them (Reiss, 2012; Ryan & Deci, 2000a, 2020).

5.1.2 Effects on academic engagement

We also found almost teacher of English instructional styles can facilitate twelfth grade students' learning engagement. Consistent with multiple studies in school and college context (Fredricks et al., 2004; Harbour, Evanovich, Sweigart, & Hughes, 2015; Heng, 2014; Jurik et al., 2014; Roksa & Whitley, 2017; Xerri, Radford, & Shacklock, 2018). Our study found twelfth grade students are more likely to be affectively, behaviorally, and cognitively engaged in learning in the context where teacher of English provide support for video lecture learning, support and feedback for learning, and support autonomy for learning. Moreover, this study showed support for autonomy learning appeared to be the most important determinant of twelfth grade students' affective engagement. This might be because, when support for autonomy learning, twelfth grade students can make own decision in learning to choose what they think that can improve their learning goal as well as associated with their emotion, interest, enjoyment, values, and reactions towards teachers, curriculum content and class (S. Chan et al., 2021b; Fredricks et al., 2005; Fredricks et al., 2004; Moon & Ke, 2020; Erika A. Patall & Zambrano, 2019; Ellen A Skinner & Belmont, 1993). Regarding the association between twelfth grade students' learning motivation and learning engagement, we found aspects of intrinsic learning

motivation significantly predict all aspects of learning engagement, and extrinsic motivation has only significant effect on cognitive engagement. These findings suggest that twelfth grade students tend to be interested in what and where they learn, devote their efforts in learning, and employ deep learning approaches when they are intrinsically motivated to learn. This study is in agreement with previous studies that have established that students' intrinsic motivation can contribute to learning engagement (Froiland & Worrell, 2016; Karimi & Sotoodeh, 2020; Lerdpornkulrat, Koul, & Poondej, 2018; Wu et al., 2020). However, this study found that support video lecture learning has no effect on affective engagement. Based on Walker and Koralesky (2021) lack of connection between students and teachers has been linked to reduced affective engagement in learning through video lecture. This study also found that support and feedback for learning has no effect on affective and cognitive engagement. According to Wang and Zhang (2020) Students' engagement is improved by high frequency, difficulty, and diversity evaluation criteria, while feedback without these elements may have little or no effect on learning engagement. In addition, praise at the individual level seldom solves feedback issues, hence it is unhelpful for improving learning engagement (Black & Wiliam, 1998; Hattie & Timperley, 2007). This study found support for autonomy learning has no effective on cognitive engagement. According to Liu et al. (2021) supporting teacher autonomy can raise student engagement in class activities, but recurrent failure or extreme pressure might cause them to set unrealistic expectations for themselves and have negative emotional experiences that drive them to undervalue their own contributions. This study also found that extrinsic learning motivation has no effect on affective and behavioral engagement. Base on self-determination theory, types of extrinsic motivations rarely hard predicted on engagement, as learners experienced with external factors (e.g., reward, punishment, controlling, and amotivating), they just show off with pretending attitudes (Reiss, 2012; Ryan & Deci, 2000a, 2020).

CHAPTER 6

CONCLUSION

6.1 Conclusion

This design found the factors structure was firmly constructed by self-determination theory in which have chosen with support video lecture learning (i.e., free-place for watching, association between textbook and video explanation, and explicit clarification) support and feedback for learning (i.e., encouragement, and constructive and timely feedback) and support for autonomy learning (i.e., degree of freedom with learning choices were offered by teachers with learning tasks, and learning group), revealed a significant and positive influences on learning motivation (i.e., self-improvement, curiosity, challenging task, and ownership, and reward-based learning). Our findings also show that instructional styles have direct and indirect effects on twelfth grade students' affective engagement (i.e., enjoyment, interesting, and sense of belonging) behavioral engagement (i.e., self-discipline, self-regulation and school belonging), and cognitive engagement (i.e., deep-learning approach, self-curiosity, self-evaluation, and truth-seeking) for classroom management. This research suggests that a learning environment that supports basic psychological needs of twelfth grade students, especially EFL twelfth grade students, is more likely to increase their learning motivation, learning engagement, and academic achievement with English teaching. For Cambodia context, little is known about self-determination theory to support for instructional style. In fact, video lecture support was a little bit in studying among developing countries. Hence, these findings highlight the need for incorporating these instructional styles into curriculum in order to improve the quality of twelfth grade students' instruction, and increase learning achievement of twelfth grade students through learning motivation, and learning engagement among bilingual language education.

6.2 Recommendations

6.2.1 Recommendation for further development

Ministry of Education, Youth and Sport

Obviously, this study contributed actively with educational sector, not only Cambodia. It is only focused on Cambodia context specially. Consequently, most of results was promoted among Cambodia's education. As can be expected significantly, when the

results were found, researcher recommended: Ministry of Educations, Youth, and Sports should incorporate these instructional styles into national curriculum in order to improve the quality of teaching and learning at high school level, then can increase learning achievement of students through learning motivation, and learning engagement. Moreover, MoEYS should focus on teachers' ability upgrading by providing them to attends the training course for both local and international. In addition, MoEYS should take the perception of teaching and learning context that emphasizes support for autonomy learning, support and feedback for learning, and support for video lecture learning into teaching methodology for high level that can encourage the establishment of effective teaching and learning.

Policymakers and experts

Sustainable development goals (SDGs) were predicted through educational sector that can be promoted a main principle for developing countries: increasing low-middle incomes to lower-higher income in 2030. As may be hoped through this study significantly, to innovate the educational sector in Cambodia were equivalent increasingly, policy makers and stakeholders who would like to improve pedagogical knowledge for teachers' training, should make decisions through each indicator to adapt for training about them. When they were studied about this finding, they will set up with their teaching at public school to improve a huge change of student's learning. They might be attracted the most of students at high school to pursue in studying. Not only, it can lessen the student's drop-out rates and promote enormous human resources for Cambodia. Hence, it can lead Cambodia's students were caught up various chances to learn many skills that are appropriate with the latest changes in the world.

Teachers of English

As can be found, this study straightened and specified for teachers remarkably in general knowledge education, among indicators were so impressive to support with instructional style for improving English teaching. Researcher recommended as below:

(1) offer support for autonomy learning through providing students with choices and rationales for learning, taking into consideration their ideas or interests when designing learning tasks and homework, and encouraging students to involve classroom activities;

(2) offer support and feedback for learning through providing students with helping students when they had problems with their study, praising students when they do well in their homework or exercise, checking students 'homework regularly, giving students constructive feedback for their homework, and checking the previous lesson before going on to new lesson.

(3) offer support for video lecture through providing students with giving students the video of the lesson before class, crating interesting video of the lesson for students, letting students to watch video at home, and guiding students how to search new video that related to the lesson, and other search engines.

6.2.1 Recommendations for further studies

Base on the scope and limitations of this study, we recommend prospective students, professors, practitioners, and scholars should take all high school students (tenth grade, eleventh grade, and twelfth students)' perceptions in order to avoid subjective responses concerning instructional styles. Moreover, the respondents in this study were high school students in Cambodia, which might lead to an issue of generalizability of the findings. Therefore, replication studies should be carried out with students of other levels (e.g., secondary, high school, and higher education) across the disciplines and nationalities to verify these results.

REFERENCES

- Appleton, J. J., Christenson, S. L., & Furlong, M. J. (2008). Student engagement with school: Critical conceptual and methodological issues of the construct. *Psychology in the Schools*, 45(5), 369-386.
- Appleton, J. J., Christenson, S. L., Kim, D., & Reschly, A. L. (2006). Measuring cognitive and psychological engagement: Validation of the Student Engagement Instrument. *Journal of School Psychology*, 44(5), 427-445. doi:<https://doi.org/10.1016/j.jsp.2006.04.002>
- Bao, X. h., & Lam, S. f. (2008). Who makes the choice? Rethinking the role of autonomy and relatedness in Chinese children's motivation. *Child development*, 79(2), 269-283.
- Baumeister, R. F., & Leary, M. R. (2017). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Interpersonal development*, 57-89.
- Behling, O., & Law, K. S. (2000). *Translating questionnaires and other research instruments: Problems and solutions* (Vol. 133): sage.
- Benveniste, L., Marshall, J., & Araujo, M. C. (2008). Teaching in Cambodia. *World Bank*. Retrieved from <https://openknowledge.worldbank.org/handle/10986/8073>
- Birch, S. H., & Ladd, G. W. (1997). The teacher-child relationship and children's early school adjustment. *Journal of School Psychology*, 35(1), 61-79. doi:[https://doi.org/10.1016/S0022-4405\(96\)00029-5](https://doi.org/10.1016/S0022-4405(96)00029-5)
- Black, P., & Wiliam, D. (1998). Assessment and Classroom Learning. *Assessment in Education: Principles, Policy & Practice*, 5(1), 7-74. doi:10.1080/0969595980050102
- Brame, C. J. (2015). Effective educational videos. Retrieved from <https://cft.vanderbilt.edu/guides-sub-pages/effective-educational-videos/>
- Brandisauskiene, A., Buksnyte-Marmiene, L., Cesnaviciene, J., Daugirdiene, A., Kemeryte-Ivanauskiene, E., & Nedzinskaite-Maciuniene, R. (2021). Sustainable School Environment as a Landscape for Secondary School Students' Engagement in Learning. *Sustainability*, 13(21), 11714. Retrieved from <https://www.mdpi.com/2071-1050/13/21/11714>
- Bredenberg, K. (2018). Secondary education in Cambodia: The progress of reform. *Phnom Penh*.
- Chan, S., Maneewan, S., & Koul, R. (2021a). Cooperative learning in teacher education: its effects on EFL pre-service teachers' content knowledge and teaching self-efficacy. *Journal of Education for Teaching*, 47(5), 654-667.

- Chan, S., Maneewan, S., & Koul, R. (2021b). An examination of the relationship between the perceived instructional behaviours of teacher educators and pre-service teachers' learning motivation and teaching self-efficacy. *Educational Review*, 1-23. doi:10.1080/00131911.2021.1916440
- Chan, S., Maneewan, S., & Koul, R. (2021c). Teacher educators' teaching styles: relation with learning motivation and academic engagement in pre-service teachers. *Teaching in Higher Education*, 1-22. doi:10.1080/13562517.2021.1947226
- Chan, Y. M. (2010). Video instructions as support for beyond classroom learning. *Procedia - Social and Behavioral Sciences*, 9, 1313-1318. doi:<https://doi.org/10.1016/j.sbspro.2010.12.326>
- Christenson, S., Reschly, A. L., & Wylie, C. (2012). *Handbook of research on student engagement* (Vol. 840): Springer.
- Conduit, J., Karpen, I. O., & Farrelly, F. (2016). Student Engagement: A Multiple Layer Phenomenon. In C. Plewa & J. Conduit (Eds.), *Making a Difference Through Marketing: A Quest for Diverse Perspectives* (pp. 229-245). Singapore: Springer Singapore.
- Conner, T. (2016). Relationships: The key to student engagement. *International journal of Education and Learning*, 5(1), 13-22.
- Coon, D., & Mitterer, J. O. (2012). *Introduction to psychology: Gateways to mind and behavior with concept maps and reviews*: Cengage Learning.
- Corno, L., & Mandinach, E. B. (1983). The role of cognitive engagement in classroom learning and motivation. *Educational Psychologist*, 18(2), 88-108. doi:10.1080/00461528309529266
- Corpus, J. H., McClintic-Gilbert, M. S., & Hayenga, A. O. (2009). Within-year changes in children's intrinsic and extrinsic motivational orientations: Contextual predictors and academic outcomes. *Contemporary Educational Psychology*, 34(2), 154-166. doi:<https://doi.org/10.1016/j.cedpsych.2009.01.001>
- Costley, J., & Lange, C. H. (2017). Video lectures in e-learning. *Interactive Technology and Smart Education*, 14(1), 14-30. doi:10.1108/ITSE-08-2016-0025
- Crook, A., Mauchline, A., Maw, S., Lawson, C., Drinkwater, R., Lundqvist, K., . . . Park, J. (2012). The use of video technology for providing feedback to students: Can it enhance the feedback experience for staff and students? *Computers & Education*, 58(1), 386-396. doi:<https://doi.org/10.1016/j.compedu.2011.08.025>
- Deci, E. L., Olafsen, A. H., & Ryan, R. M. (2017). Self-determination theory in work organizations: The state of a science. *Annual review of organizational psychology and organizational behavior*, 4, 19-43.
- Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of research in personality*, 19(2), 109-134.

- Deci, E. L., & Ryan, R. M. (2012). Self-determination theory.
- Deci, E. L., & Ryan, R. M. (2013). *Intrinsic motivation and self-determination in human behavior*: Springer Science & Business Media.
- Diseth, Å., & Samdal, O. (2014). Autonomy support and achievement goals as predictors of perceived school performance and life satisfaction in the transition between lower and upper secondary school. *Social Psychology of Education, 17*(2), 269-291.
- Eccles, J. S., Wigfield, A., & Schiefele, U. (1998). Motivation to succeed.
- Em, S., & Nun, N. (2022). Cambodian grade-12 students' perceptions of public English textbook and exam papers. *PROJECT (Professional Journal of English Education), 5*(4), 909-917.
- Estévez, I., Rodríguez-Llorente, C., Piñeiro, I., González-Suárez, R., & Valle, A. (2021). School engagement, academic achievement, and self-regulated learning. *Sustainability, 13*(6), 3011.
- Floyd, F. J., & Widaman, K. F. (1995). Factor analysis in the development and refinement of clinical assessment instruments. *Psychological assessment, 7*(3), 286.
- Fredricks, J. A., Blumenfeld, P., Friedel, J., & Paris, A. (2005). School engagement. *What do children need to flourish? Conceptualizing and measuring indicators of positive development*, 305-321.
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of educational research, 74*(1), 59-109.
- Froiland, J. M., & Worrell, F. C. (2016). Intrinsic motivation, learning goals, engagement, and achievement in a diverse high school. *Psychology in the Schools, 53*(3), 321-336.
- Furtak, E. M., & Kunter, M. (2012). Effects of Autonomy-Supportive Teaching on Student Learning and Motivation. *The Journal of Experimental Education, 80*(3), 284-316. doi:10.1080/00220973.2011.573019
- García-Martínez, I., Landa, J. M. A., & León, S. P. (2021). The mediating role of engagement on the achievement and quality of life of university students. *International Journal of Environmental Research and Public Health, 18*(12), 6586.
- Greene, B. A. (2015). Measuring Cognitive Engagement With Self-Report Scales: Reflections From Over 20 Years of Research. *Educational Psychologist, 50*(1), 14-30. doi:10.1080/00461520.2014.989230
- Günüç, S., & Kuzu, A. (2014). Factors influencing student engagement and the role of technology in student engagement in higher education: campus-class-technology theory. *Turkish Online Journal of Qualitative Inquiry, 5*(4), 86-113.

- Hair, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, 109, 101-110. doi:<https://doi.org/10.1016/j.jbusres.2019.11.069>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*, 31(1), 2-24.
- Harbour, K. E., Evanovich, L. L., Sweigart, C. A., & Hughes, L. E. (2015). A brief review of effective teaching practices that maximize student engagement. *Preventing School Failure: Alternative Education for Children and Youth*, 59(1), 5-13.
- Hattie, J., & Timperley, H. (2007). The Power of Feedback. *Review of educational research*, 77(1), 81-112. doi:10.3102/003465430298487
- Hayamizu, T. (1997). Between intrinsic and extrinsic motivation: Examination of reasons for academic study based on the theory of internalization. *Japanese psychological research*, 39(2), 98-108.
- Heng, K. (2014). The effects of faculty behaviors on the academic achievement of first-year Cambodian urban university students. *Educational Research for Policy and Practice*, 13(3), 233-250. doi:10.1007/s10671-013-9159-z
- Hu, L. t., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55.
- Jang, H., Reeve, J., & Deci, E. L. (2010). Engaging students in learning activities: It is not autonomy support or structure but autonomy support and structure. *Journal of Educational psychology*, 102(3), 588.
- Jang, H., Reeve, J., & Halusic, M. (2016). A New Autonomy-Supportive Way of Teaching That Increases Conceptual Learning: Teaching in Students' Preferred Ways. *The Journal of Experimental Education*, 84(4), 686-701. doi:10.1080/00220973.2015.1083522
- Jöreskog, K. G., Sörbom, D., & Du Toit, S. H. C. (2001). *LISREL 8: New statistical features*: Scientific Software International.
- Joseph F. Hair, W. C. B., Barry J. Babin, Rolph E Anderson. (2019). *Multivariate Data Analysis*: Cengage Learning.
- Jurik, V., Gröschner, A., & Seidel, T. (2014). Predicting students' cognitive learning activity and intrinsic learning motivation: How powerful are teacher statements, student profiles, and gender? *Learning and individual differences*, 32, 132-139.
- Kahu, E. R. (2013). Framing student engagement in higher education. *Studies in Higher Education*, 38(5), 758-773. doi:10.1080/03075079.2011.598505

- Karimi, S., & Sotoodeh, B. (2020). The mediating role of intrinsic motivation in the relationship between basic psychological needs satisfaction and academic engagement in agriculture students. *Teaching in Higher Education*, 25(8), 959-975.
- Kearsley, G., & Shneiderman, B. (1998). Engagement Theory: A Framework for Technology-Based Teaching and Learning. *Educational Technology*, 38(5), 20-23. Retrieved from <http://www.jstor.org/stable/44428478>
- Kline, R. B. (2015). *Principles and practice of structural equation modeling*: Guilford publications.
- Kline, T. (2005). *Psychological testing: A practical approach to design and evaluation*: Sage.
- Kusurkar, R. A., & Croiset, G. (2015). Autonomy support for autonomous motivation in medical education. *Medical Education Online*, 20(1), 27951. doi:10.3402/meo.v20.27951
- Lane, J. D., & Harris, P. L. (2015). The roles of intuition and informants' expertise in children's epistemic trust. *Child development*, 86(3), 919-926.
- Lazarides, R., Dietrich, J., & Taskinen, P. H. (2019). Stability and change in students' motivational profiles in mathematics classrooms: The role of perceived teaching. *Teaching and Teacher Education*, 79, 164-175.
- Lee, J. (2001). Instructional support for distance education and faculty motivation, commitment, satisfaction. *British Journal of Educational Technology*, 32(2), 153-160. doi:<https://doi.org/10.1111/1467-8535.00186>
- Lerdpornkulrat, T., Koul, R., & Poondej, C. (2018). Relationship between perceptions of classroom climate and institutional goal structures and student motivation, engagement and intention to persist in college. *Journal of further and Higher Education*, 42(1), 102-115.
- Liu, H., Yao, M., Li, J., & Li, R. (2021). Multiple mediators in the relationship between perceived teacher autonomy support and student engagement in math and literacy learning. *Educational Psychology*, 41(2), 116-136. doi:10.1080/01443410.2020.1837346
- Long, T., Logan, J., & Waugh, M. (2016). Students' perceptions of the value of using videos as a pre-class learning experience in the flipped classroom. *TechTrends*, 60, 245-252.
- MoEYS. (2018). Education in Cambodia: Findings from Cambodia's experience in PISA for Development.
- Moon, J., & Ke, F. (2020). Exploring the Relationships Among Middle School Students' Peer Interactions, Task Efficiency, and Learning Engagement in Game-Based Learning. *Simulation & Gaming*, 51(3), 310-335. doi:10.1177/1046878120907940

- Moore, S. H. B., Suksiri. (2010). English in Cambodia: changes and challenges. *World Englishes*, 29(1), 114-126. doi:<https://doi.org/10.1111/j.1467-971X.2009.01628.x>
- Muthén, L. K., & Muthén, B. O. (1998–2012). *Mplus user's guide* (7th ed.). Los Angeles, CA: Muthén & Muthén.
- Newman, R. S., & Schwager, M. T. (1992). Student perceptions and academic help-seeking. *Student perceptions in the classroom*, 123-146.
- Newmann, F. M. (1992). *Student engagement and achievement in American secondary schools*: ERIC.
- Pajares, F., & Graham, L. (1999). Self-efficacy, motivation constructs, and mathematics performance of entering middle school students. *Contemporary educational psychology*, 24(2), 124-139.
- Patall, E. A., Dent, A. L., Oyer, M., & Wynn, S. R. (2013). Student autonomy and course value: The unique and cumulative roles of various teacher practices. *Motivation and emotion*, 37, 14-32.
- Patall, E. A., & Zambrano, J. (2019). Facilitating Student Outcomes by Supporting Autonomy: Implications for Practice and Policy. *Policy Insights from the Behavioral and Brain Sciences*, 6(2), 115-122. doi:10.1177/2372732219862572
- Pi, Z., Zhang, X., Zhang, X., Gao, M., & Li, X. (2023). Students' prior knowledge moderates the effects of group motivation compositions on learning from video lectures. *British Journal of Educational Technology*, n/a(n/a). doi:<https://doi.org/10.1111/bjet.13316>
- Pintrich, P. R. (1991). A manual for the use of the Motivated Strategies for Learning Questionnaire (MSLQ).
- Rahimi, M., & Asadollahi, F. (2012). On the relationship between Iranian EFL teachers' classroom management orientations and teaching style. *Procedia - Social and Behavioral Sciences*, 31, 49-55. doi:<https://doi.org/10.1016/j.sbspro.2011.12.015>
- Raphael, L. M., Pressley, M., & Mohan, L. (2008). Engaging instruction in middle school classrooms: An observational study of nine teachers. *The Elementary School Journal*, 109(1), 61-81.
- Reeve, J. (2012). A Self-determination Theory Perspective on Student Engagement. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of Research on Student Engagement* (pp. 149-172). Boston, MA: Springer US.
- Reeve, J., Jang, H., Carrell, D., Jeon, S., & Barch, J. (2004). Enhancing students' engagement by increasing teachers' autonomy support. *Motivation and emotion*, 28(2), 147-169.
- Reinhold, S., Gegenfurtner, A., & Lewalter, D. (2018). Social support and motivation to transfer as predictors of training transfer: testing full and partial mediation using

- meta-analytic structural equation modelling. *International Journal of Training and Development*, 22(1), 1-14. doi:<https://doi.org/10.1111/ijtd.12115>
- Reiss, S. (2012). Intrinsic and extrinsic motivation. *Teaching of psychology*, 39(2), 152-156.
- Roksa, J., & Whitley, S. E. (2017). Fostering academic success of first-year students: Exploring the roles of motivation, race, and faculty. *Journal of College Student Development*, 58(3), 333-348.
- Ryan, R. M., & Deci, E. L. (2000a). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary educational psychology*, 25(1), 54-67.
- Ryan, R. M., & Deci, E. L. (2000b). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), 68.
- Ryan, R. M., & Deci, E. L. (2006). Self-regulation and the problem of human autonomy: Does psychology need choice, self-determination, and will? *Journal of personality*, 74(6), 1557-1586.
- Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary educational psychology*, 61, 101860.
- Sablić, M., Miroslavljević, A., & Škugor, A. (2021). Video-Based Learning (VBL)—Past, Present and Future: an Overview of the Research Published from 2008 to 2019. *Technology, Knowledge and Learning*, 26(4), 1061-1077. doi:10.1007/s10758-020-09455-5
- Selvanathan, M., Jayabalan, N., Saini, G. K., Supramaniam, M., & Hussin, N. (2020). Employee Productivity in Malaysian Private Higher Educational Institutions. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(3), 66-79.
- Shaari, A. S., Yusoff, N. M., Ghazali, I. M., Osman, R. H., & Dzahir, N. F. M. (2014). The Relationship between Lecturers' Teaching Style and Students' Academic Engagement. *Procedia - Social and Behavioral Sciences*, 118, 10-20. doi:<https://doi.org/10.1016/j.sbspro.2014.02.002>
- Shin, J., Kim, M.-S., Hwang, H., & Lee, B.-Y. (2018). Effects of intrinsic motivation and informative feedback in service-learning on the development of college students' life purpose. *Journal of Moral Education*, 47(2), 159-174. doi:10.1080/03057240.2017.1419943
- Sieberer-Nagler, K. (2016). Effective classroom-management & positive teaching. *English Language Teaching*, 9(1), 163-172.
- Simon, P. D., & Salanga, M. G. C. (2021). Validation of the Five-item Learning Climate Questionnaire as a measure of teacher autonomy support in the classroom. *Psychology in the Schools*, 58(10), 1919-1931.

- Skinner, E., Furrer, C., Marchand, G., & Kindermann, T. (2008). Engagement and disaffection in the classroom: Part of a larger motivational dynamic? *Journal of Educational psychology*, 100(4), 765.
- Skinner, E. A., & Belmont, M. J. (1993). Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. *Journal of Educational psychology*, 85(4), 571.
- Skinner, E. A., Kindermann, T. A., & Furrer, C. J. (2008). A Motivational Perspective on Engagement and Disaffection: Conceptualization and Assessment of Children's Behavioral and Emotional Participation in Academic Activities in the Classroom. *Educational and Psychological Measurement*, 69(3), 493-525. doi:10.1177/0013164408323233
- Smith, K. A., Sheppard, S. D., Johnson, D. W., & Johnson, R. T. (2005). Pedagogies of engagement: Classroom-based practices. *Journal of engineering education*, 94(1), 87-101.
- Stroet, K., Opdenakker, M.-C., & Minnaert, A. (2013). Effects of need supportive teaching on early adolescents' motivation and engagement: A review of the literature. *Educational research review*, 9, 65-87.
- Tahir, N., Yousafzai, I. K., Jan, S., & Hashim, M. (2014). The impact of training and development on employees performance and productivity a case study of United Bank Limited Peshawar City, KPK, Pakistan. *International Journal of Academic Research in Business and Social Sciences*, 4(4), 86.
- Tandon, P., & Fukao, T. (2015). *Improving Teacher Quality in Cambodia. Directions in Development--Human Development*. Paper presented at the Educating the Next Generation. <https://openknowledge.worldbank.org/handle/10986/21002> License: CC BY 3.0 IGO.
- Taras, M. (2013). Feedback on feedback. *Reconceptualising Feedback in Higher Education: Developing Dialogue with Students*. London: Routledge, 30-40.
- Tessier, D., Sarrazin, P., & Ntoumanis, N. (2010). The effect of an intervention to improve newly qualified teachers' interpersonal style, students motivation and psychological need satisfaction in sport-based physical education. *Contemporary educational psychology*, 35(4), 242-253.
- Tolley, L. M., Johnson, L., & Koszalka, T. A. (2012). An intervention study of instructional methods and student engagement in large classes in Thailand. *International Journal of Educational Research*, 53, 381-393. doi:<https://doi.org/10.1016/j.ijer.2012.05.003>
- Uysal, D. (2019). Problems and solutions concerning English language preparatory curriculum at higher education in view of ELT instructors. *International Journal of Contemporary Educational Research*, 6(2), 452-467.

- Vallerand, R. J., Pelletier, L. G., Blais, M. R., Briere, N. M., Senecal, C., & Vallieres, E. F. (1992). The Academic Motivation Scale: A Measure of Intrinsic, Extrinsic, and Amotivation in Education. *Educational and Psychological Measurement*, 52(4), 1003-1017. doi:10.1177/0013164492052004025
- Vansteenkiste, M., & Ryan, R. M. (2013). On psychological growth and vulnerability: basic psychological need satisfaction and need frustration as a unifying principle. *Journal of psychotherapy integration*, 23(3), 263.
- Walker, K. A., & Koralesky, K. E. (2021). Student and instructor perceptions of engagement after the rapid online transition of teaching due to COVID-19. *Natural Sciences Education*, 50(1), e20038.
- Wang, S., & Zhang, D. (2020). Perceived teacher feedback and academic performance: the mediating effect of learning engagement and moderating effect of assessment characteristics. *Assessment & Evaluation in Higher Education*, 45(7), 973-987. doi:10.1080/02602938.2020.1718599
- Weiner, I. B. (1992). *Psychological disturbance in adolescence*: John Wiley & Sons.
- Widiati, U., & Hayati, N. (2015). Teacher professional education in Indonesia and ASEAN 2015: Lessons learned from English language teacher education programs. *ASEAN integration and the role of English language teaching*, 3(1), 121-148.
- Willms, J. D. (2003). Student engagement at school. *A sense of belonging and participation*. Paris: Organisation for Economic Co-operation and Development.
- Wu, C., Chen, X., Cai, Y., Zhou, X., Xu, S., Huang, H., . . . Zhang, Y. (2020). Risk factors associated with acute respiratory distress syndrome and death in patients with coronavirus disease 2019 pneumonia in Wuhan, China. *JAMA internal medicine*, 180(7), 934-943.
- Xerri, M. J., Radford, K., & Shacklock, K. (2018). Student engagement in academic activities: A social support perspective. *Higher education*, 75, 589-605.
- Yang, J., Zhang, Y., Pi, Z., & Xie, Y. (2021). Students' achievement motivation moderates the effects of interpolated pre-questions on attention and learning from video lectures. *Learning and Individual Differences*, 91, 102055. doi:<https://doi.org/10.1016/j.lindif.2021.102055>

APPENDICES

TIMEFRAME

Date	Activities
January 2022	- Read literature review - Choose a topic - Start writing Introduction, Literature review, Methodology, and Reference
February-April 2022	- Keep writing Introduction, Literature Review, Methodology, and References
May-June 2022	- Edit Introduction, Literature Review, Methodology, and References
July 2022	- Submit the research proposal and prepare for the proposal defense - Proposal Defense
August 2022	- Ask permission letter from RUPP - Send the permission letter with the purpose of the study to the target place for the approval of conducting the research - Create test and course syllabus
September 2022	- Teaching in real class
October 2022	- Teaching in real class
November 2022	-Analyze the data collection and write report
December 2022	-Analyze the data collection and write report
January 2023	- Draft the thesis - Peer editing
February 2023	- Draft the thesis - Peer editing

March 2023	- Editing the report - Finalizing the report
April 2023	- Submit the research thesis and prepare for the thesis defense

Note: This timeframe is subject to change

សាកលវិទ្យាល័យភូមិន្ទកម្ពុជា
មហាវិទ្យាល័យអប់រំ

សំណើប្រមូលទិន្នន័យ

ឈ្មោះនិស្សិត៖ **ម៉ៅ កុសល** ភេទ៖ ប្រុស
ទូរសព្ទ៖ ០៩៧ ៩២២ ៧៨៩៨
អ៊ីម៉ែល៖ maokosal168@gmail.com

ចំណងជើងនិក្ខេបបទ៖

“The Relationships Between Teachers of English Instructional Styles, Learning Motivations and Students’ Learning Engagement in high school in Cambodia”

“ទំនាក់ទំនងរវាងវិធីសាស្ត្រនៃការបង្រៀនរបស់គ្រូកាសាអង់គ្លេស ការជំរុញទឹកចិត្តការរៀន និងការចូលរួមរបស់សិស្សក្នុងការសិក្សា នៅវិទ្យាល័យក្នុងប្រទេសកម្ពុជា”

សូមមេត្តាចេញលិខិតជូនទៅអ្នកពាក់ព័ន្ធ ដើម្បីស្នើសុំប្រមូលទិន្នន័យសម្រាប់និក្ខេបបទរបស់ខ្ញុំបាទ/នាងខ្ញុំ៖

* សូមភ្ជាប់នូវកម្រងសំណួរស្រាវជ្រាវមកជាមួយសំណើសុំនេះ។

១. ជូន៖ លោក **សុង ណារ៉ាត់**

តួនាទី៖ នាយក

ស្ថាប័ន៖ វិទ្យាល័យ សម្តេចតេជោហ៊ុនសែន មេសាវៀរ

អាសយដ្ឋាន៖ ភូមិអូរពេជ្រ ឃុំមេសាវៀរ ស្រុកស្ទឹងត្រែង ខេត្តកំពង់ចាម

២. ជូន៖ លោក **ហ៊ួត លាងឆេង**

តួនាទី៖ នាយក

ស្ថាប័ន៖ វិទ្យាល័យ សម្តេចតេជោហ៊ុនសែន ស្ទឹងត្រែង

អាសយដ្ឋាន៖ ភូមិបឹងដង ឃុំព្រែកកំ ស្រុកស្ទឹងត្រែង ខេត្តកំពង់ចាម

៣. ជូន៖ លោក **ឡាន់ ផល្លា**

តួនាទី៖ នាយក

ស្ថាប័ន៖ វិទ្យាល័យ ហ៊ុនសែន ពាមកោះស្នា

អាសយដ្ឋាន៖ ភូមិ ពាមក្នុង ឃុំពាមកោះស្នា ស្រុកស្ទឹងត្រែង ខេត្តកំពង់ចាម

៤. ជូន៖ លោក **អែម សំអឿន**

តួនាទី៖ នាយក

ស្ថាប័ន៖ វិទ្យាល័យ ប៊ុនរ៉ានីហ៊ុនសែន ស្តី

អាសយដ្ឋាន៖ ភូមិស្តីកើត ឃុំស្តី ស្រុកចំការលើ ខេត្តកំពង់ចាម

ប្រភេទនៃអ្នកឆ្លើយតប៖ សិស្ស

រយៈពេល៖ ១ខែ (ចាប់ពីថ្ងៃទី ២៤ខែមករា ឆ្នាំ២០២៣ រហូតដល់ថ្ងៃទី ២៤ខែ កុម្ភៈ ឆ្នាំ២០២៣)

ឯកភាពតាមសំណើ

ថ្ងៃទី២៤ ខែមករា ឆ្នាំ២០២៣

សាស្ត្រាចារ្យជីកនាំ



នាង ពិសិដ្ឋ

ថ្ងៃទី២៣ ខែមករា ឆ្នាំ២០២៣

ហត្ថលេខាសាមីខ្លួន



ម៉ៅ កុសល



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ
លេខ: ១១៩/.....សកក ៣៧
/ ២០២៣

សូមជម្រាបជូន

លោកនាយក វិទ្យាល័យ សម្តេចតេជោហ៊ុនសែន មេសាវៀរ

កម្មវត្ថុ ៖ សំណើសុំអនុញ្ញាតឱ្យនិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំឈ្មោះ ម៉ៅ កុសល ចុះប្រមូលទិន្នន័យស្រាវជ្រាវនៅវិទ្យាល័យ សម្តេចតេជោហ៊ុនសែន មេសាវៀរ។

តបតាមកម្មវត្ថុខាងលើ ខ្ញុំសូមជម្រាបជូន **លោកនាយក** ជ្រាបថា ៖ ដើម្បីលើកកម្ពស់គុណភាពអប់រំ និងផ្សារភ្ជាប់ទ្រឹស្តីនឹងការអនុវត្ត សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញតម្រូវឱ្យនិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំ មហាវិទ្យាល័យអប់រំនៃសាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ ចុះស្រាវជ្រាវ និងប្រមូលទិន្នន័យទាក់ទងនឹងប្រធានបទ “ទំនាក់ទំនងរវាងវិធីសាស្ត្រនៃការបង្រៀនរបស់គ្រូកាសាអង់គ្លេស ការជំរុញទឹកចិត្តក្នុងការរៀននិងការចូលរួមរបស់សិស្សក្នុងការសិក្សា នៅវិទ្យាល័យក្នុងប្រទេសកម្ពុជា” សម្រាប់សរសេរនិក្ខេបបទបំពេញលក្ខខណ្ឌបញ្ចប់ការសិក្សាថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំ ដែលនឹងប្រព្រឹត្តទៅចាប់ពីថ្ងៃទី១ ខែកុម្ភៈ ដល់ថ្ងៃទី២៨ ខែកុម្ភៈ ឆ្នាំ២០២៣។

សេចក្តីដូចជម្រាបជូនខាងលើ សូម **លោកនាយក** ជ្រាបនិងអនុញ្ញាតតាមសំណើដោយក្តីអនុគ្រោះ។

សូម **លោកនាយក** ទទួលនូវការគោរពដ៏ស្មោះស្ម័គ្រពីខ្ញុំ

ថ្ងៃ ២៩ កើត ខែ មាឃ ឆ្នាំខាល ចត្វាស័ក ព.ស. ២៥៦៦
រាជធានីភ្នំពេញ ថ្ងៃទី ៣០ ខែមករា ឆ្នាំ២០២៣។

ឧ. សាកលវិទ្យាធិការ
សាកលវិទ្យាធិការរង

ប៉ាល់ វេស

- កាលប្បវត្តិ
- ឯកសារ: ក.ស

លេខទូរស័ព្ទទំនាក់ទំនង៖ ០៩៧ ៩២២ ៧៨ ៩៨



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ

លេខ: ១១៨៧.....សកកព .កស

Handwritten signature

សូមជម្រាបជូន

លោកនាយក វិទ្យាល័យ ប៉ុនរ៉ានីហ៊ុនសែន ស្តី

កម្មវត្ថុ ៖ សំណើសុំអនុញ្ញាតឱ្យនិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំឈ្មោះ ម៉ៅ កុសល ចុះប្រមូលទិន្នន័យស្រាវជ្រាវនៅវិទ្យាល័យ ប៉ុនរ៉ានីហ៊ុនសែន ស្តី។

តបតាមកម្មវត្ថុខាងលើ ខ្ញុំសូមជម្រាបជូន **លោកនាយក** ជ្រាបថា ៖ ដើម្បីលើកកម្ពស់គុណភាពអប់រំ និងផ្សារភ្ជាប់ទ្រឹស្តីនឹងការអនុវត្ត សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញតម្រូវឱ្យនិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំ មហាវិទ្យាល័យអប់រំនៃសាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ ចុះស្រាវជ្រាវ និងប្រមូលទិន្នន័យទាក់ទងនឹងប្រធានបទ "ទំនាក់ទំនងរវាងវិធីសាស្ត្រនៃការបង្រៀនរបស់គ្រូកាសាអង់គ្លេស ការជំរុញទឹកចិត្តក្នុងការរៀន និងការចូលរួមរបស់និស្សិតក្នុងការសិក្សា នៅវិទ្យាល័យក្នុងប្រទេសកម្ពុជា" សម្រាប់សរសេរនិក្ខេបបទបំពេញលក្ខខណ្ឌបញ្ចប់ការសិក្សាថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំ ដែលនឹងប្រព្រឹត្តទៅចាប់ពីថ្ងៃទី១ ខែកុម្ភៈ ដល់ថ្ងៃទី២៨ ខែកុម្ភៈ ឆ្នាំ២០២៣។

សេចក្តីដូចជម្រាបជូនខាងលើ សូម **លោកនាយក** ជ្រាបនិងអនុញ្ញាតតាមសំណើដោយក្តីអនុគ្រោះ។

សូម **លោកនាយក** ទទួលនូវការគោរពដ៏ស្មោះស្ម័គ្រពីខ្ញុំ

ថ្ងៃ ២៩ ខែ កុម្ភៈ ឆ្នាំខាល ចត្វាស័ក ព.ស. ២៥៦៦
រាជធានីភ្នំពេញ ថ្ងៃទី ៣០ ខែមករា ឆ្នាំ២០២៣



ប៉ាល់ ជែន

- កាលប្បវត្តិ
- ឯកសារ: ក.ស

លេខទូរស័ព្ទទំនាក់ទំនង: ០៩៧ ៩២២ ៧៨ ៩៨



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

សាកលវិទ្យាល័យកម្ពុជា

លេខ: ១១៩/.....សកកណ-កស

Handwritten signature

សូមជម្រាបជូន

លោកនាយក វិទ្យាល័យ សម្តេចតេជោហ៊ុនសែន ស្ទឹងត្រែង

កម្មវត្ថុ ៖ សំណើសុំអនុញ្ញាតឱ្យនិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំឈ្មោះ ម៉ៅ កុសល ចុះប្រមូលទិន្នន័យស្រាវជ្រាវនៅវិទ្យាល័យ សម្តេចតេជោហ៊ុនសែន ស្ទឹងត្រែង។

តបតាមកម្មវត្ថុខាងលើ ខ្ញុំសូមជម្រាបជូន **លោកនាយក** ជ្រាបថា ៖ ដើម្បីលើកកម្ពស់គុណភាពអប់រំ និងផ្សារភ្ជាប់ទ្រឹស្តីនឹងការអនុវត្ត សាកលវិទ្យាល័យកម្ពុជាពេញតម្រូវឱ្យនិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំ មហាវិទ្យាល័យអប់រំនៃសាកលវិទ្យាល័យកម្ពុជាពេញ ចុះស្រាវជ្រាវ និងប្រមូលទិន្នន័យទាក់ទងនឹងប្រធានបទ “ទំនាក់ទំនងរវាងវិធីសាស្ត្រនៃការបង្រៀនរបស់គ្រូកាសាអង់គ្លេស ការជំរុញទឹកចិត្តក្នុងការរៀន និងការចូលរួមរបស់សិស្សក្នុងការសិក្សា នៅវិទ្យាល័យក្នុងប្រទេសកម្ពុជា” សម្រាប់សរសេរនិក្ខេបបទបំពេញលក្ខខណ្ឌបញ្ចប់ការសិក្សាថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំ ដែលនឹងប្រព្រឹត្តទៅចាប់ពីថ្ងៃទី១ ខែកុម្ភៈ ដល់ថ្ងៃទី២៨ ខែកុម្ភៈ ឆ្នាំ២០២៣។

សេចក្តីដូចជម្រាបជូនខាងលើ សូម **លោកនាយក** ជ្រាបនិងអនុញ្ញាតតាមសំណើដោយក្តីអនុគ្រោះ។

សូម **លោកនាយក** ទទួលនូវការគោរពដ៏ស្មោះស្ម័គ្រពីខ្ញុំ

ថ្ងៃ ២១ ខែ កើត ខែ មាឃ ឆ្នាំខាល ចត្វាស័ក ព.ស. ២៥៦៦
រាជធានីភ្នំពេញ ថ្ងៃទី ២១ ខែមករា ឆ្នាំ២០២៣



ជ. សាកលវិទ្យាធិការ
សាកលវិទ្យាធិការទេ

ប្រាសាទ ជេស

- កាលប្បវត្តិ
- ឯកសារ: ក.ស

លេខទូរសព្ទទំនាក់ទំនង: ០៩៧ ៩២២ ៧៨ ៩៨



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ

លេខ: ១១៩/.....សកភកព . កស

[Signature]

សូមជម្រាបជូន

លោកនាយក វិទ្យាល័យហ៊ុនសែន ពាមកោះស្មា

កម្មវត្ថុ : សំណើសុំអនុញ្ញាតឱ្យនិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំឈ្មោះ ម៉ៅ កុសល ចុះប្រមូលទិន្នន័យស្រាវជ្រាវនៅវិទ្យាល័យហ៊ុនសែន ពាមកោះស្មា។

តបតាមកម្មវត្ថុខាងលើ ខ្ញុំសូមជម្រាបជូន លោកនាយក ជ្រាបថា ៖ ដើម្បីលើកកម្ពស់គុណភាពអប់រំ និងផ្សារភ្ជាប់ទ្រឹស្តីនឹងការអនុវត្ត សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញតម្រូវឱ្យនិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំ មហាវិទ្យាល័យអប់រំនៃសាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ ចុះស្រាវជ្រាវ និងប្រមូលទិន្នន័យទាក់ទងនឹងប្រធានបទ "ទំនាក់ទំនងរវាងវិធីសាស្ត្រនៃការបង្រៀនរបស់គ្រូកាសាអង់គ្លេស ការជំរុញទឹកចិត្តក្នុងការរៀន និងការចូលរួមរបស់សិស្សក្នុងការសិក្សា នៅវិទ្យាល័យក្នុងប្រទេសកម្ពុជា" សម្រាប់សរសេរនិក្ខេបបទបំពេញលក្ខខណ្ឌបញ្ចប់ការសិក្សា ថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំ ដែលនឹងប្រព្រឹត្តទៅចាប់ពីថ្ងៃទី១ ខែកុម្ភៈ ដល់ថ្ងៃទី២៨ ខែកុម្ភៈ ឆ្នាំ២០២៣។

សេចក្តីដូចជម្រាបជូនខាងលើ សូម លោកនាយក ជ្រាបនិងអនុញ្ញាតតាមសំណើដោយក្តីអនុគ្រោះ។

សូម លោកនាយក ទទួលនូវការគោរពដ៏ស្មោះស្ម័គ្រពីខ្ញុំ

ថ្ងៃ ២២ ខែ កុម្ភៈ ឆ្នាំខាល ចត្វាស័ក ព.ស. ២៥៦៦
រាជធានីភ្នំពេញ ថ្ងៃទី ២២ ខែកក្កដា ឆ្នាំ២០២៣



ប៉ាល់ ជែស

- កាលប្បវត្តិ
- ឯកសារ: ក.ស

លេខទូរស័ព្ទទំនាក់ទំនង: ០៩៧ ៩២២ ៧៨ ៩៨

Subconstructs	Items were adapted
Pre-video lecture support learning Long et al. (2016)	1. I like viewing pre-class videos better than reading text materials for English subject. 2. The videos were helpful because I could do them on my own time. 3. The videos were easy to learn from. 4. The lesson was well-explained in the videos. 5. The videos were helpful for completing the exercise in the textbooks. 6. The videos were helpful for completing the in-class activities. 7. The in-class activities helped me understand the knowledge covered in the videos.
Support and feedback for learning Heng (2014)	8. My teacher enables students of different abilities to answer his/her questions. 9. My teacher offered helps to me when I had (a) problem(s) with my study. 10. My teacher praises me when I do well in my homework or exercise. 11. My teacher always checks my homework. 12. My teacher checks if I had learnt the old lesson well before going on to new lesson. 13. My teacher always give feedback that helped to improve me understanding. 14. My teacher always gives me constructive feedback on my homework.
Support Autonomy for learning Simon and Salanga (2021)	15. I feel that my English teacher provides me with choices and options. 16. I feel understood by my teacher. 17. My English teacher conveys confidence in my ability to do well in my English subject. 18. My English teacher listens to how I would like to do things. Students became autonomous learner 19. My English teacher tries to understand how I see things before suggesting a new way to do things. Self-understanding on learning 20. My English teacher encouraged me to ask questions. 21. My English teacher answers my questions fully and carefully
Intrinsic learning motivation Pintrich (1991)	22. I prefer lesson content that really challenges me, because I think I can learn a new thing. 23. I prefer a lesson that arouses my curiosity, even if difficult to learn. 24. The most satisfying thing for me, is trying to understand the course content as I can. 25. I decide to choose a lesson that I think I can to learn from even if I'm not sure getting a good score. 26. I prefer a homework that arouses my curiosity, even if difficult to solve. 27. I decide to choose an exercise that I think I can to solve even if I'm not sure getting a good result.
Extrinsic motivation Pintrich (1991)	28. Getting a good score is the most satisfying things for me. 29. I want to get higher score in the class than most of the other students.

	30. I want to do homework or exercise well offering by teacher because I think it is important to show off my ability to others. 31. The most important thing for me, is improving my grade or point all of course. 32. My main concern in my study is getting a good grade.
Affective engagements Fredricks et al. (2005)	33. I like being at English class. 34. I feel excited by my work in English class. 35. My English class is a fun place to be. 36. I am interested my work in English class. 37. I feel happy in English class. 38. I feel bored in English class. (REVERSED)
Behavioral engagements Fredricks et al. (2005)	39. I follow the rules in English class. 40. I get in trouble in English class. (REVERSED) 41. When I am in English class, I just act as if I am working. (REVERSED) 42. I pay attention in English class. 43. I complete my work on time for English class.
Cognitive engagement Fredricks et al. (2005)	44. I always check my English exercise for mistakes. 45. I always study at home even when I don't have a test of English. 46. I always try to watch videos about things we do in English class. 47. When I read a English text, I ask myself questions to make sure I understand what it is about. 48. I read extra English books to learn more about things we do in English class. 49. If I don't know what a English word means when I am reading, I always do something to figure it out. 50. If I don't understand what I read, I go back and read it over again. 51. I talk with people outside of class about what I am learning in English class.

Self-reported questionnaires

Part I: Personal information

Gender:	1. ☐ Male	2. ☐ Female
Age:		
Field of study	1. ☐ Social Science	2. ☐ Real Science

Part II: Survey questionnaire

Read each sentence carefully and check the meaning of each sentence certainly to avoid misunderstanding. Draw the circle in a gape that show about your truth with learning process in the past.

All your provisions of information are guarantee keeping in secret.

N ^o	5 = <i>strongly agree</i> , 4 = <i>agree</i> , 3 = <i>not sure</i> , 2 = <i>disagree</i> 1 = <i>strongly disagree</i>	5	4	3	2	1
1	I like viewing pre-class videos better than reading text materials for English subject.	5	4	3	2	1
2	The videos were helpful because I could do them on my own time.	5	4	3	2	1
3	The videos were easy to learn from.	5	4	3	2	1
4	The lesson was well-explained in the videos.	5	4	3	2	1
5	The videos were helpful for completing the exercise in the textbooks.	5	4	3	2	1
6	The videos were helpful for completing the in-class activities.	5	4	3	2	1
7	The in-class activities helped me understand the knowledge covered in the videos.	5	4	3	2	1
8	My teacher enables students of different abilities to answer his/her questions.	5	4	3	2	1
9	My teacher offered helps to me when I had (a) problem(s) with my study.	5	4	3	2	1

10	My teacher praises me when I do well in my homework or exercise.	5	4	3	2	1
11	My teacher always checks my homework.	5	4	3	2	1
12	My teacher checks if I had learnt the old lesson well before going on to new lesson.	5	4	3	2	1
13	My teacher always give feedback that helped to improve me understanding.	5	4	3	2	1
14	My teacher always gives me constructive feedback on my homework.	5	4	3	2	1
15	I feel that my English teacher provides me with choices and options.	5	4	3	2	1
16	I feel understood by my teacher.	5	4	3	2	1
17	My English teacher conveys confidence in my ability to do well in my English subject.	5	4	3	2	1
18	My English teacher listens to how I would like to do things.	5	4	3	2	1
19	My English teacher tries to understand how I see things before suggesting a new way to do things.	5	4	3	2	1
20	My English teacher encouraged me to ask questions.	5	4	3	2	1
21	My English teacher answers my questions fully and carefully	5	4	3	2	1
22	I prefer lesson content that really challenges me, because I think I can learn a new thing.	5	4	3	2	1
23	I prefer a lesson that arouses my curiosity, even if difficult to learn.	5	4	3	2	1
24	The most satisfying thing for me, is trying to understand the course content as I can.	5	4	3	2	1
25	I decide to choose a lesson that I think I can to learn from even if I'm not sure getting a good score.	5	4	3	2	1
26	I prefer a homework that arouses my curiosity, even if difficult to solve.	5	4	3	2	1

27	I decide to choose an exercise that I think I can to solve even if I'm not sure getting a good result.	5	4	3	2	1
28	Getting a good score is the most satisfying things for me.	5	4	3	2	1
29	I want to get higher score in the class than most of the other students.	5	4	3	2	1
30	I want to do homework or exercise well offering by teacher because I think it is important to show off my ability to others.	5	4	3	2	1
31	The most important thing for me, is improving my grade or point all of course.	5	4	3	2	1
32	My main concern in my study is getting a good grade.	5	4	3	2	1
33	I like being at English class.	5	4	3	2	1
34	I feel excited by my work in English class.	5	4	3	2	1
35	My English class is a fun place to be.	5	4	3	2	1
36	I am interested my work in English class.	5	4	3	2	1
37	I feel happy in English class.	5	4	3	2	1
38	I feel bored in English class. (REVERSED)	5	4	3	2	1
39	I follow the rules in English class.	5	4	3	2	1
40	I get in trouble in English class. (REVERSED)	5	4	3	2	1
41	When I am in English class, I just act as if I am working. (REVERSED)	5	4	3	2	1
42	I pay attention in English class.	5	4	3	2	1
43	I complete my work on time for English class.	5	4	3	2	1
44	I always check my English exercise for mistakes.	5	4	3	2	1
45	I always study at home even when I don't have a test of English.	5	4	3	2	1
46	I always try to watch videos about things we do in English class.	5	4	3	2	1
47	When I read a English text, I ask myself questions to make sure I understand what it is about.	5	4	3	2	1

48	I read extra English books to learn more about things we do in English class.	5	4	3	2	1
49	If I don't know what a English word means when I am reading, I always do something to figure it out.	5	4	3	2	1
50	If I don't understand what I read, I go back and read it over again.	5	4	3	2	1
51	I talk with people outside of class about what I am learning in English class.	5	4	3	2	1

កម្រងសំណួរផ្ទាល់ខ្លួន

ផ្នែកទី១: ព័ត៌មានផ្ទាល់ខ្លួន

កេរ្តិ៍ ៖	1. ☐ ប្រុស	2. ☐ ស្រី
អាយុ ៖		
ជំនាញសិក្សា ៖	1. ☐ វិទ្យាសាស្ត្រសង្គម	2. ☐ វិទ្យាសាស្ត្រពិត

ផ្នែកទី ២៖ កម្រងសំណួរ

ចូរអ្នកអានឈ្នះនីមួយៗដោយយកចិត្តទុកដាក់ និងពិនិត្យខ្លឹមសារនៃឈ្នះនីមួយៗឱ្យបានច្បាស់លាស់ ដើម្បីជៀសវាងការយល់ច្រឡំ។ ចូរគូសរង្វង់នៅក្នុងចន្លោះដែលបង្ហាញពីការពិតនៃរបស់អ្នកនៅក្នុងដំណើរនៃការសិក្សារៀនសូត្រកន្លងមក។

បញ្ជាក់៖ ព័ត៌មានរបស់អ្នកដែលបានផ្តល់នេះ នឹងត្រូវបានធានារក្សាការសម្ងាត់។

ល.រ	5 = យល់ស្របខ្លាំង, 4 = យល់ស្រប, 3 = មិនទាន់ប្រាកដ, 2 = មិនយល់ស្រប, 1 = មិនយល់ស្របខ្លាំង	5	4	3	2	1
1	ខ្ញុំចូលចិត្តមើលវីដេអូបង្រៀនមុនម៉ោង ជាងការអានអត្ថបទមេរៀនសម្រាប់មុខវិជ្ជាភាសាអង់គ្លេស។	5	4	3	2	1
2	វីដេអូបង្រៀនគឺមានប្រយោជន៍សម្រាប់ខ្ញុំ ព្រោះខ្ញុំអាចមើលពេលណាក៏បាន។	5	4	3	2	1
3	វីដេអូបង្រៀនគឺងាយស្រួលរៀន។	5	4	3	2	1
4	មេរៀន គឺមានការពន្យល់ច្បាស់លាស់ នៅក្នុងវីដេអូបង្រៀន។	5	4	3	2	1
5	វីដេអូបង្រៀនគឺមានសារៈសំខាន់សម្រាប់ធ្វើការដោះស្រាយលំហាត់នៅក្នុងសៀវភៅពុម្ព។	5	4	3	2	1
6	វីដេអូបង្រៀនគឺមានប្រយោជន៍នៅក្នុងការបំប៉នបន្ថែមនៅក្នុងសកម្មភាពរៀនក្នុងថ្នាក់។	5	4	3	2	1
7	សកម្មភាពរៀនក្នុងថ្នាក់ជួយខ្ញុំឱ្យយល់ដឹងបន្ថែមពីចំណេះដឹងនៅក្នុងវីដេអូបង្រៀន។	5	4	3	2	1

8	គ្រូរបស់ខ្ញុំឱ្យសិស្សមានសមត្ថភាពខុសៗគ្នាឆ្លើយសំណួររបស់គាត់។	5	4	3	2	1
9	គ្រូរបស់ខ្ញុំជួយផ្តល់ដំណោះស្រាយផ្សេងៗដល់ខ្ញុំ នៅពេលខ្ញុំជួបបញ្ហាជាមួយការរៀន។	5	4	3	2	1
10	គ្រូរបស់ខ្ញុំសរសើរខ្ញុំនៅពេលដែលខ្ញុំចេះធ្វើកិច្ចការផ្ទះ ឬលំហាត់បានត្រឹមត្រូវ ។	5	4	3	2	1
11	ជារឿយៗ គ្រូរបស់ខ្ញុំត្រួតពិនិត្យកិច្ចការផ្ទះរបស់ខ្ញុំ ។	5	4	3	2	1
12	គ្រូរបស់ខ្ញុំតែងធ្វើការបញ្ជាក់ថា តើខ្ញុំចេះមេរៀនបានច្បាស់លាស់ឬទេ មុននឹងបន្តទៅមេរៀនថ្មី។	5	4	3	2	1
13	ជារឿយៗ គ្រូរបស់ខ្ញុំផ្តល់មតិកែលម្អ ដែលបានធ្វើឱ្យការយល់ដឹងរបស់ខ្ញុំមានភាពប្រសើរឡើង។	5	4	3	2	1
14	ជារឿយៗ គ្រូរបស់ខ្ញុំផ្តល់មតិយោបល់កែលម្អកិច្ចការផ្ទះរបស់ខ្ញុំ។	5	4	3	2	1
15	ខ្ញុំមានអារម្មណ៍ថាគ្រូភាសាអង់គ្លេសរបស់ខ្ញុំផ្តល់ជម្រើសសម្រាប់សកម្មភាពរៀន និងជម្រើសផ្សេងៗ ទៀត នៅក្នុងការរៀន។	5	4	3	2	1
16	ខ្ញុំមានអារម្មណ៍ថាបានរៀនចេះដោយសារគ្រូរបស់ខ្ញុំ។	5	4	3	2	1
17	គ្រូភាសាអង់គ្លេសរបស់ខ្ញុំបង្ហាញទំនុកចិត្តមកលើសមត្ថភាពរបស់ខ្ញុំ ដែលធ្វើឱ្យខ្ញុំចេះមេរៀន	5	4	3	2	1
18	គ្រូភាសាអង់គ្លេសរបស់ខ្ញុំស្តាប់ពីរបៀបដែលខ្ញុំចង់ធ្វើកិច្ចការផ្សេងៗ។	5	4	3	2	1
19	គ្រូភាសាអង់គ្លេសរបស់ខ្ញុំព្យាយាមយល់ពីរបៀបដែលខ្ញុំយល់ឃើញទៅលើកិច្ចការ មុននឹងគាត់ដាក់នូវរបៀបណាមួយ ដើម្បីធ្វើកិច្ចការនោះ។	5	4	3	2	1
20	គ្រូភាសាអង់គ្លេសរបស់ខ្ញុំបានលើកទឹកចិត្តខ្ញុំឱ្យសួរសំណួរ។	5	4	3	2	1
21	គ្រូភាសាអង់គ្លេសរបស់ខ្ញុំបានឆ្លើយសំណួររបស់ខ្ញុំយ៉ាងក្បោះក្បាយ និងយ៉ាងយកចិត្តទុកដាក់។	5	4	3	2	1

22	ខ្ញុំពេញចិត្តខ្លឹមសារមេរៀនណា ដែលពិតជាធ្វើឱ្យខ្ញុំពិបាករៀន ព្រោះខ្ញុំ គិតថាខ្ញុំអាចរៀនអ្វីដែលថ្មី។	5	4	3	2	1
23	ខ្ញុំពេញចិត្តមេរៀន ឬកិច្ចការផ្ទះណា ដែលជំរុញឱ្យខ្ញុំចង់ចេះចង់ដឹង ទោះបីជាវាពិបាករៀនក៏ដោយ។	5	4	3	2	1
24	ការពេញចិត្តបំផុតសម្រាប់ខ្ញុំ គឺការព្យាយាមស្វែងយល់ពីមេរៀន តាមតែមលទ្ធភាពរបស់ខ្ញុំ។	5	4	3	2	1
25	ខ្ញុំសម្រេចចិត្តជ្រើសរើសមេរៀនណាមួយ ដែលខ្ញុំគិតថាខ្ញុំអាចរៀនបាន ទោះបីជាខ្ញុំមិនប្រាកដថាខ្លួនឯងទទួលបានពិន្ទុល្អក៏ដោយ។	5	4	3	2	1
26	ខ្ញុំពេញចិត្តកិច្ចការផ្ទះណា ដែលជំរុញឱ្យខ្ញុំចង់ចេះចង់ដឹង ទោះបីជាវា ពិបាកធ្វើក៏ដោយ។	5	4	3	2	1
27	ខ្ញុំសម្រេចចិត្តជ្រើសរើសលំហាត់ ដែលខ្ញុំគិតថាខ្ញុំអាចធ្វើបានខ្លះ ទោះបីជាខ្ញុំមិនប្រាកដថាខ្លួនឯងទទួលបានលទ្ធផលល្អក៏ដោយ។	5	4	3	2	1
28	ការទទួលបានពិន្ទុល្អ ជារឿងដែលខ្ញុំពេញចិត្តបំផុត។	5	4	3	2	1
29	ខ្ញុំចង់បានបានពិន្ទុខ្ពស់ជាងសិស្សទាំងអស់នៅក្នុងថ្នាក់។	5	4	3	2	1
30	ខ្ញុំចង់ចេះធ្វើកិច្ចការផ្ទះ ឬលំហាត់ដែលគ្រូដាក់ឱ្យ ព្រោះខ្ញុំគិតថាវាមាន សារៈសំខាន់ណាស់ក្នុងការបង្ហាញសមត្ថភាពរបស់ខ្ញុំឱ្យអ្នកដទៃដឹង។	5	4	3	2	1
31	រឿងដែលខ្ញុំគិតថាសំខាន់ជាងគេសម្រាប់ខ្ញុំ គឺការធ្វើឱ្យប្រសើរឡើងនៃ ពិន្ទុ ឬនិទ្ទេស។	5	4	3	2	1

32	ការខ្វល់ខ្វាយចម្បងនៅក្នុងការសិក្សារបស់ខ្ញុំ គឺការទទួលបាននព៌ន្ធល្អ។	5	4	3	2	1
33	ខ្ញុំចូលចិត្តរៀនម៉ោងភាសាអង់គ្លេស។	5	4	3	2	1
34	ខ្ញុំមានអារម្មណ៍រំភើបរីករាយជាមួយកិច្ចការរបស់ខ្ញុំ នៅក្នុងម៉ោងភាសាអង់គ្លេស។	5	4	3	2	1
35	ថ្នាក់ភាសាអង់គ្លេសរបស់ខ្ញុំគឺ ជាកន្លែងសប្បាយរីករាយដែលខ្ញុំចង់តែរៀន។	5	4	3	2	1
36	ខ្ញុំចាប់អារម្មណ៍លើកិច្ចការរបស់ខ្ញុំនៅក្នុងម៉ោងភាសាអង់គ្លេស។	5	4	3	2	1
37	ខ្ញុំមានអារម្មណ៍សប្បាយរីករាយនៅក្នុងម៉ោងភាសាអង់គ្លេស។	5	4	3	2	1
38	ខ្ញុំមានអារម្មណ៍ថាធុញទ្រាន់ នៅក្នុងម៉ោងភាសាអង់គ្លេស។	5	4	3	2	1
39	ខ្ញុំគោរពតាមការណែនាំពីវិន័យ និងសណ្តាប់ធ្នាប់ នៅក្នុងម៉ោងភាសាអង់គ្លេស។	5	4	3	2	1
40	ខ្ញុំមានបញ្ហានៅក្នុងម៉ោងភាសាអង់គ្លេស។	5	4	3	2	1
41	នៅពេលខ្ញុំនៅក្នុងថ្នាក់ភាសាអង់គ្លេស ខ្ញុំគ្រាន់តែធ្វើពុតជារៀនប៉ុណ្ណោះ។	5	4	3	2	1
42	ខ្ញុំយកចិត្តទុកដាក់រៀនសូត្រ ក្នុងម៉ោងភាសាអង់គ្លេស។	5	4	3	2	1
43	ខ្ញុំបំពេញកិច្ចការរបស់ខ្ញុំទាន់ពេល នៅក្នុងម៉ោងភាសាអង់គ្លេស។	5	4	3	2	1
44	ខ្ញុំតែងត្រួតពិនិត្យកំហុសនៅក្នុងលំហាត់អង់គ្លេសរបស់ខ្ញុំ។	5	4	3	2	1
45	ខ្ញុំតែងតែរៀននៅផ្ទះ ទោះមិនមានការប្រឡងក៏ដោយ។	5	4	3	2	1
46	ខ្ញុំបានព្យាយាមមើលវីដេអូ ពីរឿងដែលយើងធ្វើនៅក្នុងថ្នាក់ភាសាអង់គ្លេស។	5	4	3	2	1
47	ពេលខ្ញុំអានអត្ថបទភាសាអង់គ្លេស ខ្ញុំស្ទង់នឹង ដើម្បីប្រាកដចិត្តថាខ្ញុំយល់ពីអត្ថបទនោះ។	5	4	3	2	1

48	ខ្ញុំអានសៀវភៅអង់គ្លេសបន្ថែម ដើម្បីយល់ដឹងបន្ថែម នូវអ្វីដែលយើងបានរៀននៅក្នុងថ្នាក់។	5	4	3	2	1
49	ប្រសិនបើខ្ញុំមិនយល់ន័យពាក្យអង់គ្លេស ខ្ញុំតែងតែធ្វើអ្វីម្យ៉ាងដើម្បីដោះស្រាយវា ដែលខ្ញុំកំពុងអាន។	5	4	3	2	1
50	ខ្ញុំត្រឡប់សៀវភៅ និងអានអត្ថបទម្តងហើយម្តងទៀត ប្រសិនបើខ្ញុំមិនយល់អ្វីដែលខ្ញុំអាន។	5	4	3	2	1
51	ខ្ញុំពិភាក្សាជាមួយមនុស្សដទៃនៅក្រៅថ្នាក់ ពីអ្វីដែលខ្ញុំបានរៀនក្នុងម៉ោងភាសាអង់គ្លេស។	5	4	3	2	1

Mplus VERSION 6.12

MUTHEN & MUTHEN

03/11/2023 5:41 PM

INPUT INSTRUCTIONS

title: cfa8construct

data: file is kosal.csv;

variable: names are Sex Age FieldStudy

SVL1 SVL2 SVL3 SVL4 SVL5 SVL6 SVL7

SFL1 SFL2 SFL3 SFL4 SFL5 SFL6

SFL7 SAL1 SAL2 SAL3 SAL4 SAL5 SAL6 SAL7

ILM1 ILM2 ILM3 ILM4 ILM5 ILM6

ELM1 ELM2 ELM3 ELM4 ELM5

AEM1 AEM2 AEM3 AEM4 AEM5 AEM6

BEM1 BEM2 BEM3 BEM4 BEM5

CEM1 CEM2 CEM3 CEM4 CEM5 CEM6 CEM7 CEM8;

usevariables are SVL1 SVL2 SVL3 SVL4 SVL5 SVL6 SVL7

SFL2 SFL3 SFL4 SFL5 SFL6 SFL7

SAL4 SAL5 SAL6

ILM1 ILM2 ILM3 ILM4 ILM5 ILM6

ELM1 ELM2 ELM3 ELM4 ELM5

AEM1 AEM2 AEM3 AEM4 AEM5

BEM1 BEM4 BEM5

CEM4 CEM6 CEM7 CEM8

define: SVL=(SVL1+SVL2+SVL3+SVL4+SVL6+SVL7)/7;

SFL=(SFL2+SFL3+SFL4+SFL5+SFL6+SFL7)/6;

SAL=(SAL4+SAL5+SAL6)/3;

ILM=(ILM1+ILM2+ILM3+ILM4+ILM5+ILM6)/6;

ELM=(ELM1+ELM2+ELM3+ELM4+ELM5)/5;

AEM=(AEM1+AEM2+AEM3+AEM4+AEM5)/5;

BEM=(BEM1+BEM4+BEM5)/3;

CEM=(CEM4+CEM6+CEM7+CEM8)/4;

model: SVL by SVL1 SVL2 SVL3 SVL4 SVL5 SVL6 SVL7;

SFL by SFL2 SFL3 SFL4 SFL5 SFL6 SFL7;

SAL by SAL4 SAL5 SAL6;

ILM by ILM1 ILM2 ILM3 ILM4 ILM5 ILM6;

ELM by ELM1 ELM2 ELM3 ELM4 ELM5;

AEM by AEM1 AEM2 AEM3 AEM4 AEM5;

BEM by BEM1 BEM4 BEM5;

CEM by CEM4 CEM6 CEM7 CEM8;

ELM2 WITH ELM1;

SVL4 WITH SVL3;

SFL7 WITH SFL4;

ILM4 WITH ILM1;

SVL5 WITH SVL4;

AEM4 WITH AEM1;

CEM4 WITH SVL1;

CEM8 WITH ELM3;

SFL2 WITH SVL7;

BEM4 WITH SFL2;

BEM4 WITH AEM4;

BEM4 WITH SFL7;

SVL6 WITH SVL1;

AEM1 WITH SFL7;

ELM2 WITH ILM5;

ILM2 WITH SAL4;

ILM5 WITH SVL5;

ILM4 WITH ILM2;

CEM6 WITH ILM1;

output: STDYX MODINDICES TECH4; fscoefficient;

Chi-Square Test of Model Fit

Value	1114.628
Degrees of Freedom	655
P-Value	0.0000

RMSEA (Root Mean Square Error Of Approximation)

Estimate	0.037
90 Percent C.I.	0.033 0.041
Probability RMSEA $\leq$.05	1.000

CFI/TLI

CFI	0.929
TLI	0.920

SRMR (Standardized Root Mean Square Residual)

Value	0.045
-------	-------

ESTIMATED CORRELATION MATRIX FOR THE LATENT VARIABLES

	SVL	SFL	SAL	ILM	ELM
SVL	1.000				
SFL	0.594	1.000			
SAL	0.502	0.703	1.000		
ILM	0.568	0.606	0.621	1.000	
ELM	0.413	0.271	0.279	0.455	1.000
AEM	0.443	0.499	0.634	0.609	0.248
BEM	0.501	0.556	0.567	0.576	0.303
CEM	0.486	0.418	0.400	0.644	0.240

ESTIMATED CORRELATION MATRIX FOR THE LATENT VARIABLES

	AEM	BEM	CEM
AEM	1.000		
BEM	0.804	1.000	
CEM	0.626	0.766	1.000

Mplus VERSION 6.12
MUTHEN & MUTHEN
03/11/2023 8:38 PM

INPUT INSTRUCTIONS

title: cfa8construct
data: file is kosal.csv;
variable: names are Sex Age FieldStudy
SVL1 SVL2 SVL3 SVL4 SVL5 SVL6 SVL7
SFL1 SFL2 SFL3 SFL4 SFL5 SFL6
SFL7 SAL1 SAL2 SAL3 SAL4 SAL5 SAL6 SAL7
ILM1 ILM2 ILM3 ILM4 ILM5 ILM6
ELM1 ELM2 ELM3 ELM4 ELM5
AEM1 AEM2 AEM3 AEM4 AEM5 AEM6
BEM1 BEM2 BEM3 BEM4 BEM5
CEM1 CEM2 CEM3 CEM4 CEM5 CEM6 CEM7 CEM8;
usevariables are SVL1 SVL2 SVL3 SVL4 SVL5 SVL6 SVL7
SFL2 SFL3 SFL4 SFL5 SFL6 SFL7
SAL4 SAL5 SAL6
ILM1 ILM2 ILM3 ILM4 ILM5 ILM6
ELM1 ELM2 ELM3 ELM4 ELM5
AEM1 AEM2 AEM3 AEM4 AEM5
BEM1 BEM4 BEM5
CEM4 CEM6 CEM7 CEM8
define: SVL=(SVL1+SVL2+SVL3+SVL4+SVL6+SVL7)/7;
SFL=(SFL2+SFL3+SFL4+SFL5+SFL6+SFL7)/6;
SAL=(SAL4+SAL5+SAL6)/3;
ILM=(ILM1+ILM2+ILM3+ILM4+ILM5+ILM6)/6;
ELM=(ELM1+ELM2+ELM3+ELM4+ELM5)/5;
AEM=(AEM1+AEM2+AEM3+AEM4+AEM5)/5;

BEM=(BEM1+BEM4+BEM5)/3;
 CEM=(CEM4+CEM6+CEM7+CEM8)/4;

model: SVL by SVL1 SVL2 SVL3 SVL4 SVL5 SVL6 SVL7;

SFL by SFL2 SFL3 SFL4 SFL5 SFL6 SFL7;
 SAL by SAL4 SAL5 SAL6;
 ILM by ILM1 ILM2 ILM3 ILM4 ILM5 ILM6;
 ELM by ELM1 ELM2 ELM3 ELM4 ELM5;
 AEM by AEM1 AEM2 AEM3 AEM4 AEM5;
 BEM by BEM1 BEM4 BEM5;
 CEM by CEM4 CEM6 CEM7 CEM8;

AEM on ILM ELM SVL SFL SAL;
 BEM on ILM ELM SVL SFL SAL;
 CEM on ILM ELM SVL SFL SAL;
 ILM on SVL SFL SAL;
 ELM on SVL SFL SAL;

ELM2 WITH ELM1;
 SVL4 WITH SVL3;
 SFL7 WITH SFL4;
 SVL5 WITH SVL4;
 ILM4 WITH ILM1;
 AEM4 WITH AEM1;
 CEM4 WITH SVL1;
 ELM WITH ILM;
 CEM8 WITH ELM3;
 SFL2 WITH SVL7;
 BEM4 WITH SFL2;
 BEM4 WITH AEM4;
 BEM4 WITH SFL7;

SVL6 WITH SVL1;
 AEM1 WITH SFL7;
 ELM2 WITH ILM5;
 ILM2 WITH SAL4;
 ILM4 WITH ILM2;
 ILM5 WITH SVL5;

MODEL INDIRECT:

AEM ind SVL;
 AEM ind SFL;
 AEM ind SAL;
 BEM ind SVL;
 BEM ind SFL;
 BEM ind SAL;
 CEM ind SVL;
 CEM ind SFL;
 CEM ind SAL;
 ILM ind SVL;
 ILM ind SFL;
 ILM ind SAL;
 ELM ind SVL;
 ELM ind SFL;
 ELM ind SAL;

output: modindices (10) stdyx; !fscoefficient;

Chi-Square Test of Model Fit

Value	1126.110
Degrees of Freedom	656
P-Value	0.0000

RMSEA (Root Mean Square Error Of Approximation)

Estimate	0.037
90 Percent C.I.	0.034 0.04
Probability RMSEA <= .05	1.000

CFI/TLI

CFI	0.927
TLI	0.918

SRMR (Standardized Root Mean Square Residual)

Value	0.045
-------	-------

STANDARDIZED MODEL RESULTS

AEM ON

ILM	0.356	0.075	4.735	0.000
ELM	-0.051	0.054	-0.954	0.340
SVL	0.078	0.067	1.169	0.243
SFL	-0.047	0.087	-0.539	0.590
SAL	0.421	0.088	4.779	0.000

BEM ON

ILM	0.241	0.086	2.797	0.005
ELM	0.026	0.062	0.425	0.671
SVL	0.148	0.077	1.925	0.054
SFL	0.153	0.101	1.516	0.129
SAL	0.229	0.101	2.265	0.024

CEM ON

ILM	0.575	0.089	6.494	0.000
ELM	0.094	0.066	1.438	0.151
SVL	0.223	0.081	2.758	0.006

SFL	-0.014	0.104	-0.137	0.891
SAL	-0.033	0.106	-0.307	0.759

ILM ON

SVL	0.277	0.063	4.373	0.000
SFL	0.214	0.090	2.381	0.017
SAL	0.333	0.086	3.849	0.000

ELM ON

SVL	0.374	0.073	5.100	0.000
SFL	-0.031	0.104	-0.293	0.769
SAL	0.113	0.101	1.122	0.262

Latent Variable	Estimate	S.E.	Two-Tailed	
			Est./S.E.	P-Value
ILM	0.496	0.047	10.499	0.000
ELM	0.178	0.042	4.258	0.000
AEM	0.482	0.045	10.809	0.000
BEM	0.435	0.051	8.449	0.000
CEM	0.429	0.055	7.850	0.000

STANDARDIZED TOTAL, TOTAL INDIRECT, SPECIFIC INDIRECT, AND
DIRECT EFFECTS

STDYX Standardization

Two-Tailed

	Estimate	S.E.	Est./S.E.	P-Value
--	----------	------	-----------	---------

Effects from SVL to AEM

Total	0.157	0.064	2.449	0.014
Total indirect	0.079	0.032	2.435	0.015

Specific indirect

AEM

ILM

SVL	0.098	0.031	3.159	0.002
-----	-------	-------	-------	-------

AEM

ELM

SVL	-0.019	0.021	-0.937	0.349
-----	--------	-------	--------	-------

Direct

AEM

SVL	0.078	0.067	1.169	0.243
-----	-------	-------	-------	-------

Effects from SFL to AEM

Total	0.031	0.092	0.336	0.737
Total indirect	0.078	0.038	2.056	0.040

Specific indirect

AEM				
ILM				
SFL	0.076	0.038	1.990	0.047

AEM				
ELM				
SFL	0.002	0.006	0.270	0.787

Direct				
AEM				
SFL	-0.047	0.087	-0.539	0.590

Effects from SAL to AEM

Total	0.534	0.085	6.260	0.000
Total indirect	0.113	0.034	3.332	0.001

Specific indirect

AEM				
ILM				
SAL	0.118	0.035	3.361	0.001

AEM				
ELM				
SAL	-0.006	0.009	-0.664	0.507

Direct				
AEM				
SAL	0.421	0.088	4.779	0.000

Effects from SVL to BEM

Total	0.224	0.071	3.151	0.002
Total indirect	0.077	0.031	2.433	0.015

Specific indirect

BEM

ILM

SVL	0.067	0.029	2.321	0.020
-----	-------	-------	-------	-------

BEM

ELM

SVL	0.010	0.023	0.423	0.672
-----	-------	-------	-------	-------

Direct

BEM

SVL	0.148	0.077	1.925	0.054
-----	-------	-------	-------	-------

Effects from SFL to BEM

Total	0.204	0.102	1.991	0.047
Total indirect	0.051	0.030	1.717	0.086

Specific indirect

BEM

ILM

SFL	0.052	0.028	1.815	0.070
-----	-------	-------	-------	-------

BEM				
ELM				
SFL	-0.001	0.003	-0.238	0.812

Direct

BEM				
SFL	0.153	0.101	1.516	0.129

Effects from SAL to BEM

Total	0.312	0.096	3.255	0.001
Total indirect	0.083	0.034	2.456	0.014

Specific indirect

BEM				
ILM				
SAL	0.080	0.035	2.308	0.021

BEM				
ELM				
SAL	0.003	0.007	0.402	0.688

Direct

BEM				
SAL	0.229	0.101	2.265	0.024

Effects from SVL to CEM

Total	0.347	0.075	4.599	0.000
-------	-------	-------	-------	-------

Total indirect	0.124	0.044	2.796	0.005
----------------	-------	-------	-------	-------

Specific indirect

CEM

ILM

SVL	0.159	0.043	3.731	0.000
-----	-------	-------	-------	-------

CEM

ELM

SVL	-0.035	0.026	-1.347	0.178
-----	--------	-------	--------	-------

Direct

CEM

SVL	0.223	0.081	2.758	0.006
-----	-------	-------	-------	-------

Effects from SFL to CEM

Total	0.112	0.107	1.048	0.294
-------	-------	-------	-------	-------

Total indirect	0.126	0.054	2.316	0.021
----------------	-------	-------	-------	-------

Specific indirect

CEM

ILM

SFL	0.123	0.056	2.215	0.027
-----	-------	-------	-------	-------

CEM

ELM				
SFL	0.003	0.010	0.286	0.775

Direct

CEM				
SFL	-0.014	0.104	-0.137	0.891

Effects from SAL to CEM

Total	0.148	0.103	1.444	0.149
Total indirect	0.181	0.058	3.134	0.002

Specific indirect

CEM				
ILM				
SAL	0.192	0.060	3.198	0.001

CEM				
ELM				
SAL	-0.011	0.012	-0.898	0.369

Direct

CEM				
SAL	-0.033	0.106	-0.307	0.759

Effects from SVL to ILM

Total	0.277	0.063	4.373	0.000
Total indirect	0.000	0.000	0.000	1.000

Direct

ILM

SVL	0.277	0.063	4.373	0.000
-----	-------	-------	-------	-------

Effects from SFL to ILM

Total	0.214	0.090	2.381	0.017
Total indirect	0.000	0.000	0.000	1.000

Direct

ILM

SFL	0.214	0.090	2.381	0.017
-----	-------	-------	-------	-------

Effects from SAL to ILM

Total	0.333	0.086	3.849	0.000
Total indirect	0.000	0.000	0.000	1.000

Direct

ILM

SAL	0.333	0.086	3.849	0.000
-----	-------	-------	-------	-------

Effects from SVL to ELM

Total	0.374	0.073	5.100	0.000
Total indirect	0.000	0.000	0.000	1.000

Direct				
ELM				
SVL	0.374	0.073	5.100	0.000

Effects from SFL to ELM

Total	-0.031	0.104	-0.293	0.769
Total indirect	0.000	0.000	0.000	1.000

Direct				
ELM				
SFL	-0.031	0.104	-0.293	0.769

Effects from SAL to ELM

Total	0.113	0.101	1.122	0.262
Total indirect	0.000	0.000	0.000	1.000

Direct				
ELM				
SAL	0.113	0.101	1.122	0.262