



សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ

ROYAL UNIVERSITY OF PHNOM PENH

**ឥទ្ធិពលឥរិយាបថនៃវិធីសាស្ត្របង្រៀនរបស់គ្រូ ទៅលើការ
ជំរុញទឹកចិត្តក្នុងការរៀន និងការជំរុញការគិតបែបស៊ីជម្រៅសម្រាប់
សិស្សនៅវិទ្យាល័យ**

Effects of Instructional Behaviours for Teacher predicted High School
Students' Learning Motivation and Critical Thinking Dispositions

Research Thesis

Mr. Ruos Daro

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

July 2023

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Examination committee: Dr.

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July 2023

មូលនិយមសង្ខេប

វត្ថុបំណងនៃការសិក្សានេះគឺដើម្បីពិនិត្យមើលទំនាក់ទំនង និងឥទ្ធិពលនៃការយល់ឃើញរបស់សិស្សទៅលើឥរិយាបថនៃការបង្រៀនរបស់គ្រូនៅវិទ្យាល័យ ការជំរុញទឹកចិត្តក្នុងការរៀន និងការជំរុញវិធីគិតបែបស៊ីជម្រៅ។ សិស្សដែលបានចូលរួមក្នុងការសិក្សានេះមានចំនួន ៥១៥នាក់ ដែលពួកគេបានកំពុងសិក្សានៅវិទ្យាល័យចាប់ពីថ្នាក់ទី៨ ដល់ទី១០។ ការចុះប្រមូលទិន្នន័យត្រូវបានធ្វើឡើងចាប់ពីថ្ងៃទី ៦ ខែកុម្ភៈ ដល់ថ្ងៃទី៦ ខែមីនា។ ការវិភាគទិន្នន័យ គឺត្រូវបានប្រើប្រាស់រូបមន្តស្ថិតិ ទំនាក់ទំនងទូទៅរវាងអថេរ និង សមីការសិក្សាឥទ្ធិពលទូទៅនៃអថេរ។ ការសិក្សានេះបង្ហាញថាកម្រិតទំនាក់ទំនងនៃអថេរនីមួយៗមានចាប់ខ្សោយទៅមធ្យម (0.059 ដល់ 0.0515) ដែលអាចជម្រុះចោលនូវភាពចម្រុះសម្រាប់នៃទំនាក់ទំនងអថេរវាស់ដោយប្រយោលនីមួយៗ។ ម៉្យាងវិញទៀតកម្រិតឥទ្ធិពលនៃអថេរវាស់ដោយប្រយោលនីមួយៗមានចាប់ពី 0.11 ដល់ 0.61។ លើសពីនេះ អថេរចម្លងដែលមានឥទ្ធិពលបំផុតគឺ ការឱ្យតម្លៃលើមុខវិជ្ជា ព្រមទាំងអថេរព្យាករណ៍ដ៏ខ្លាំងជាងគេគឺ ការរៀនបែបសហការ ការផ្តល់សេរីភាពក្នុងការរៀន និង ការផ្តល់វីដេអូបង្រៀន នៅខណៈពេលដែល និងការជំរុញទឹកចិត្តក្នុងខ្លួនជាអថេរចូលរួមចំណែកដ៏សំខាន់ក្នុងការជំរុញឱ្យមានការកើនឡើងនៃការជំរុញការគិតបែបស៊ីជម្រៅ។ បន្ថែមពីនេះ អ្នកស្រាវជ្រាវបានផ្តល់យោបល់ដល់ លោកគ្រូ អ្នកគ្រូនៅវិទ្យាល័យទៅលើឥរិយាបថនៃការបង្រៀនចំនួន ៣ចំណុច៖ ទី១ លោកគ្រូ អ្នកគ្រូគួរតែផ្តល់ឱ្យសិស្សនូវជម្រើសនូវការរៀនជាមួយនឹងកិច្ចការផ្ទះ លំហាត់ ក្រុម និងសិស្សដែលពួកគេចង់ធ្វើការជាមួយ ទី២ ផ្តល់វីដេអូបង្រៀនដែលមានការពន្យល់ក្បោះក្បាយច្បាស់លាស់ និងពាក់ព័ន្ធជាមួយលំហាត់ក្នុងសៀវភៅពុម្ព ឬកិច្ចការផ្ទះ ជាមួយគ្នានឹងការផ្តល់នូវការគាំទ្រលើកទឹកចិត្ត និងយោបល់កែលម្អ និងទី ៣បង្កើតបរិយាកាសឱ្យសិស្សបានរៀនបែបសហការដែលមានសកម្មភាពរៀនដូចជា ការគាំទ្រពីមិត្តភក្តិ ការផ្តល់យោបល់កែលម្អ និង ការជួយបង្រៀនគ្នាក្នុងក្រុម ដែលវាមានពាក់ព័ន្ធជាមួយនឹងកិច្ចការដែលគ្រូដាក់ឱ្យ។ យ៉ាងណាមិញ អ្នកធ្វើគោលនយោបាយអប់រំ ដៃគូរពាក់ព័ន្ធ និងក្រសួងអប់រំយុវជន និងកីឡា គួរបញ្ចូលនូវសូចនាករណ៍ដែលបានរកឃើញនេះសម្រាប់ការបណ្តុះបណ្តាលគ្រូនៅតាមគ្រឹះស្ថានបណ្តុះបណ្តាលគ្រូបង្រៀន និងដាក់ចូលទៅក្នុងកម្មវិធីសិក្សារបស់ក្រសួងអប់រំ យុវជន និងកីឡាថែមទៀតផង។ ជាចុងក្រោយសម្រាប់ការអនុវត្តដល់ការសិក្សាក្រោយៗគឺត្រូវបានធ្វើការពិភាក្សា។

ពាក្យគន្លឹះ៖ ឥរិយាបថនៃការបង្រៀន ការជំរុញទឹកចិត្តក្នុងការរៀន ការជំរុញវិធីគិតបែបស៊ីជម្រៅ ការផ្តល់ការគាំទ្រ និងយោបល់កែលម្អ សេរីភាពក្នុងការរៀន ការផ្តល់វីដេអូបង្រៀន ការផ្តល់វិធីរៀនបែបសហការ

ABSTRACT

The objectives of this study were to examine the effects of high school students' perceptions through instructional behaviors, to predict learning motivation and critical thinking disposition in Cambodia. The participant in this study were 515 high school students from eight to tenth grades of three high school. Data were collected from 6th in February to 6th in March 2023. Structural equation modeling was used to analyses. The level of correlation from low to moderate (0.059 to 0.515) and effect sizes of each subconstruct were from 0.11 to 0.61 respectively. In conclusion, the most influent mediator of this model was subjective task value, and the strongest predictors were cooperative, autonomy support and video lecture support, when intrinsic were the most effective contributor with critical thinking dispositions. These finding indicated the needs for practitioners to improve their teaching in general knowledge and lead to improve the feasibility of educations. Researcher recommend that teachers should (1) concern with learning choice with tasks (2) support with sufficient learning structure that teachers require to offer clear support such video lecture with clear explanation, linking with homework or exercise in the textbooks, and adequate support and feedback on what they do with learning (3) provide an involvement with them that teachers permit them to get an opportunity to build group learning as cooperatively and peer support such as peer-constructive feedback, peer-teaching, and peer-assistance that deal with learning tasks during academic year 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. So, instructional behaviors are necessary to increase the critical thinking disposition and learning competence of high school students. In addition, it is important to consider the learning motivation of students for effective learning. Implication of further research will be discussed.

Keywords: instructional behaviors, learning motivation, critical thinking dispositions, support and feedback, autonomy support, video-lecture support, cooperative support

SUPERVISOR'S RESEARCH SUPERVISION STATEMENT

TO WHOM IT MAY CONCERN

Name of program: Master of Educations in curriculum and constructions

Name of candidate: Mr. Ruos Daro

Title of thesis: "Effects of Instructional Behaviours for Teacher predicted High School Students' Learning Motivation and Critical Thinking Dispositions".

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 (s) (Sign)

Date.....25/03/2023.....

CANDIDATE'S STATEMENT

TO WHOM IT MAY CONCERN

This is to certify that the thesis that I am Daro hereby present entitled “Effects of Instructional Behaviours for Teacher predicted High School Students’ Learning Motivation and Critical Thinking Dispositions” for the degree of Master Educations in curriculums and instructions 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.

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Signed by (the candidate):



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Countersigned by the Chief Supervisor



Date.....25/03/2023.....

Second supervisor (if any)

Date.....

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CHAPTER 1

INTRODUCTION

This chapter is demonstrated into seven points. For key intention of this chapter is to clarify reasonable evidence which escort to propose of this research study. The beginning of this chapter is the background of study focus on the problem of study and the objective of study is designed to respond with research question. In this summary of this chapter will operationalize the definitions of key terms that impacts on research study to support in critical thinking dispositions which contribute to policy reform agenda of Royal Cambodian Government and global issue with reading literacy.

1.1. Background of Study

The reality of evolution in social needs have been always improved by educational sector (Tyler, 1967). Due to investigating the unavailability of some process and product in teaching and learning, Organizers required to rush preparing to reform the effectiveness and efficiency of education (Nevo, 1983). Eventually, the royal government of Cambodia , the ministry of education, youths and sports, and UNESCO have been endeavoring the best to elevate educational sector through exploring the new strategies and methodologies to promote (J. H. Williams, Kitamura, & Keng, 2016) by reforming from traditional teacher-centered, textbook-based, and ICT-based approach to become the globalized education (Tan, 2010). Especially, reading ability is due to finding the reading problems in 2015 by PISA-D assessment (Ward, 2018).

Reading difficulties have been built many concerns in human capitals to gain more information and knowledge (Maughan, 1995). Generally, teaching reading was focused on students in primary education (Ken Rowe, 2005) and considered as the fundamental skill in entire official education (Moats, 2020). However, reading problems was found since primary to higher education that the most of pupils or students cannot increase with adequate skill and proficient level in Cambodia (MoEYS, 2016, 2017, 2018b).

Obviously, reading ability is a great aspect to prompt innovative education. Reading can build human capitals quickly to achieve the civilization society. In addition to promoting the reading ability is relevant with some variables in educational study. Critical thinking is been a

part of critical reading (Aghajani & Gholamrezapour, 2019). Critical readers can reach into the expertise or not, is relied on the level of critical thinking as well (Wilson, 2016). Not only, another motivator in reading ability is learning motivation (Schunk, 2003). In essence, the teaching and learning strategies in adapting with student's learning are really important for teachers in looking for help. Likewise, teaching the students' reading is considered the best-practice to help weak students (pupil and adult) can establish educational standards and opportunities (Pang, Muaka, Bernhardt, & Kamil, 2003). Teacher is a catalyst to help to instruct the students effectively in reading, therefore teacher's characters affected to student achievements (Taylor & Pearson, 2005).

1.2. Research problems

According to PISA-D report in 2017 raised that students in ages of 15 were under minimum level of proficiency in reading. In PISA-D countries, approximately 23% of students attain the basic level of reading competence when we compared to the OECD average of 80% (Ward, 2018). In Cambodia, It was only 8% of students can achieve their performance in second level (MoEYS, 2018a). Moreover, according to National Assessment in Reading, many students only can attain in basic level of comprehension as well (MoEYS, 2016, 2017, 2018b). Instead, the critical thinking skills have been a powerful predictor and associated with reading comprehension grounded by schema theory (Aloqaili, 2012; Stephen P. Norris & Phillips, 1987). The learners get weaker in reading comprehension causing by decreasing the critical thinking skills (Ghorbandordinejad & Heydari, 2012; Marzban & Barati, 2016). Yet, lots supports were discovered by several scholars as i.e., Paula Álvarez-Huerta, Alexander Muela, and Inaki Larrea (2022b); P. A. Facione, Sanchez, Facione, and Gainen (1995); Kamgar and Jadidi (2016); Stephen P Norris (2003), critical thinking dispositions have measured as original observed construct to improve critical thinking skills. So, critical thinker cannot be absent the dispositions in thinking process. Furthermore, learning motivations are strongly imperative catalyst to boost up the effects of reading comprehension or critical thinking (Ahmadi, Ismail, & Abdullah, 2013). Learners cannot engage in learning process excluding motivations (Liu, Bridgeman, & Adler, 2012; Mustafa, Hermendra, Zulhafizh, & Hermita, 2018).

Besides, teaching reading in Cambodia, teacher always adapted with the same intervention or strategy, as the result, it cannot fulfill for poor readers (Courtney & Gravelle, 2014). Teachers' pedagogy of Cambodia has been still inadequate to support for students' learning. Many teachers could not accomplish the outcome from curriculums of Cambodia's

education (Benveniste, Marshall, & Araujo, 2008; Tandon & Fukao, 2015) . Hence, to renovate the quality of education, MoEYS (2018a) defined prior development of teachers' supports for instruction and curriculums in the teaching process. Students can learn individually or in groups independently depending on the teachers' qualities. That is why the deficiency of critical thinking or reading comprehension can be judge on instructional behavior in teaching process (Marsh & Penn, 1986; Stephen P. Norris & Phillips, 1987).

1.3. Research objectives

Disappearing of critical thinking dispositions have been a rationale decreasing reading literacy. Hence, the purposes of this research are:

1. To study the relationship between aspects of instructional behavior, learning motivation and critical thinking dispositions.
2. To examine the effects of effective instructional behaviours and learning motivations to predict critical thinking dispositions.

1.4. Research Questions

To study this research which make practical and effective use of the research questions as following:

1. What is the relationship between measures of instructional behavior, learning motivation and critical thinking dispositions?
2. Which aspects of instructional behaviors and learning motivations are predicted with critical thinking dispositions?

1.5. Scope of the study

Scope of study is referred to the perimeter to measure the study operation and specific solution linking with problems (Simon & Goes, 2013). This study was focus on development the instructional model to promote critical thinking dispositions. The scope of this study was consisted of as following:

1. The constructs of this study were: effective instructional behaviors and learning motivation and critical thinking dispositions.
2. This study was applied for 515 high school students in three high schools that they have been studying in Cambodia.

1.6. Significances of study

All research studies have always contributed to enhance each field which deal among sector. For educational sector, this study can be considered as a prominent element to take apart of development through curriculum and instructions. To be clarify the mentioned significances were divided into three layers as: significance for academics, educational policy, and theoretical and practical level.

Academics level

As mentioned above, this study might foster into curriculum and instructions through general knowledge teachers on critical thinking-based instructions. As can be seen, self-determination theory, teachers who allow learners can be included through this theoretical practitioners, they increasingly motivated to learner through academic's course intentionally and proficiently. As can be known, Self-determination theory is a newest theory for Cambodia context, as most of Cambodian's teachers permanently adapted among controlling style. As result, they still have failed via learning course. Among components of self-determination theory (. i.e., autonomy support, relatedness, and competence) were columnated as fundamental needs to assess learner's motivations, as well as achievement as critical thinking dispositions. Hence, successful study increases a massive impact on teaching style in the past, instead of, new methodology of teaching, and mending the nonexistence of insufficient agenda in educational curriculum and instruction previously.

Educational policy level

Hundred solutions were expected to be profound method to increase educational sector, not only Cambodia. Sustainable development goal (SDG) is considered as concerning projects for developing country governments to fulfill. As may be asserted, educational sector runs along people's lives, not only in the school. Hence, this study can embark over the principle which intend to promote SDG. When researcher found this empirical study, counterparts and ministry of education might make up their minds to select this evidence to propose or set up among educational principles with teacher education or short-course training to rush their goal can be led by recent international goal, that were most populated were used to expect as increasing lower-middle incomes to lower-higher incomes trough economic evolutions of the world.

Theoretical and practical level

As used to be raised up, self-determination theory is the most populated over the world, however contextual factors might contribute into the change of this theory. Hence, by

confirming the truth between Cambodia context and theory after study, we might be strong evidence among lecturing theory. Moreover, subfactors were subsidized as sub-construct were undercontrolled via self-determination theory. However, in the case that some factors were not contributed with this study, it still emphasized and reflect on the deficiency of theory which can assist to fix the gap. Mainly, the relationship between self-determination theory and expectancy value theory were strengthened among prior empirical studies simultaneously. Especially, among thereafter research study can involve as confirmation and update what they think they desire to reflect or replicate in different contexts (. i.e., ethnics, religion, and gender).

1.7. Operationalize definitions of key term

Terminologies required to complete this study could consist of diverse meanings. To facilitate in usual understanding for readers with purposes of study, the relevant key terms demonstrated as bellow:

Critical thinking dispositions refers to attitudes (habits of mind), flexibility, tending to look for a reason, an anticipated mind to being knowledgeable, respecting, and being willing to pay attention to other points of views. Recently critical thinking disposition was divided into two factors: reflective skepticism and critical openness.

1. **Reflective skepticism** refers to the attitude of not wanting to accept something or not being able to believe it (M. Williams, 2017). When learners increase reflective skepticism, they will endeavor with their challenge understanding or ideas. They always require with different reasonable and sufficient evidence before their judgment. They deny all evaluations that were completed through insufficient, unclarity, unactual, and unreasonable evidences and seek for many perspectives to ensure their rightness (Paula Álvarez-Huerta, Alexander Muela, & Iñaki Larrea, 2022a; Quinn, Hogan, Dwyer, Finn, & Fogarty, 2020).
2. **Critical openness** refers to specific trends were included with different concepts to build first-hand products or ideas and try to be willingness with these trends considerately that lead to organize and refine as new concepts through explicit data or evidence (Álvarez-Huerta et al., 2022a; Quinn et al., 2020; Sosu, 2013).

Learning motivation 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 (Elliott, Hufton, Willis, & Illushin, 2005). Students could be motivated through

attempting to future goal, needs occurring from anxiety, instincts, environment, drives, needed fulfillment (Ray, 1992).

1. **Intrinsic motivation** is referred 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 (Coon & Mitterer, 2012; Edward L. Deci, Koestner, & Ryan, 2001).
2. **Extrinsic motivation** is referred to external rewards to boost potential learning such as: discipline, pressure, performance, competition, evaluation and assessment by teachers or others (Coon & Mitterer, 2012; Robert J. Vallerand et al., 1992).
3. **Subjective task value** is the expected benefit that an individual will experience from performing an activity (Jacquelynne S Eccles, O'Neill, & Wigfield, 2005; Rotter, 1982). Task value is defined what learners appreciate on the advantage of task and value what they learn (Meece, Glienke, & Askew, 2009; Wigfield, 1994).

Instructional behaviors refer to reaching style or learning climate 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. **Autonomy support** 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.
2. **Video lecture support** refers to teacher offers some clips that deal with in term of the lessons and ask students to watch before starting the class. Video support is a tool in flipped classroom or blended learning strategy. It is appropriate for covid-19 pandemic era that was encouraged in use in supporting new technology of education for 21st century.
3. **Cooperative support** refers how teachers retain a chance for learner to work in group. In group process, teacher need to ensure, accountability, social skill, agreement in group. Teachers 'role is a counselor in consultation for cooperative process in the class.

CHAPTER 2

LITERATURE REVIEWS

The intention of this chapter is to review correlated literature which are relevant in relationship of instructional behaviors, learning motivation, and critical thinking dispositions. The literature will review on the definition of critical thinking dispositions, learning motivations and instructional behaviours, theoretical impacts of study, previous studies on these constructs, the last conceptual framework of study.

2.1. Definitions of Critical thinking dispositions

Many scholars refused a concept was considered critical thinking is only exposed in skills. They explained critical thinking can be expanded both of skills and dispositions (Baum & Newbill, 2010; Ennis, 1987, 1996; Lai, 2011; Stephen P Norris, 1985). According to Ennis (1996) critical thinking depositions seemed as a main proportion as critical thinking skills. However, depositions in critical thinking has managed before humans became increasing skills in critical thinking (Kamgar & Jadidi, 2016). Moreover, we found some definitions were defined by several researchers such as:

P. Facione (1990, p. 3) asserted that “ The ideal critical thinker is habitually inquisitive, well-informed, trustful of reason, open-minded, flexible, fair-minded inevaluation, honest in facing personal biases, prudent in making judgments, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused in inquiry, and persistent in seeking results which are as precise as the subject and the circumstances of inquiry permit”. It means that critical thinking dispositions have been prompted in positive attitudes of humans. Similarly, critical thinking dispositions refer to some attitudes (habits of mind), flexibility, tending to look for a reason, an anticipated mind to being knowledgeable, respecting, and being willing to pay attention to other points of views (Lai, 2011).

Additionally, Based on Siegel (1999, p. 220) called that “Thinking dispositions are good to the extent that they cause or bring about good thinking. They do their job when they constitute the” animating force” that causes thinkers to think well”. It means that good thinking become from good attitudes of thinking that lead from motivation of people’s mind and these attitudes increase what they intended to achieve. So, leaners cannot be absent of motivation in

learning, we will never see who can attain their personal goals by lacking motivations. Hence Teacher could not just support for instructions to improve learning outcomes directly.

2.1.1. Factor-structures of critical thinking dispositions

According to P. A. Facione et al. (1995) there have been seven factors to measure the critical thinking dispositions such as truth-seeking, open-mindedness, analyticity, systematicity, self-confidence, inquisitiveness, and maturity. However, based on Walsh, Seldomridge, and Badros (2007), some overlaps of measurement was found in California Critical Thinking Disposition Inventory tool due to lacking some revisions in study. Recently, revised by Sosu (2013), there were two factors to measure the critical thinking dispositions as: critical openness and reflective skepticism. Evidentially, assured by Thomas and Hayes (2021), these factors can predict on needs for cognition and flexible thinking. In addition, advocated by Bravo, Galiana, Rodrigo, Navarro-Pérez, and Oliver (2020) raised with this factor structure can be effective to measure the critical thinking dispositions for adolescence.

Skepticism refers to a type of thought on “the problem of criterion” for example, the problem of limitation on standard of differentiation among the knowledge and opinions. Skepticism is the attitude of not wanting to accept something or not being able to believe it (M. Williams, 2017). Reflective skepticism required to concentrated upon determining with something that lead students to believe or do (Halonen, 1995). According to Kurtz (1992, p. 134) mentioned that “ Skeptical inquirers should be open-minded about new possibilities and be willing to question even the most well-established principles in the light of further inquiry”. Reflective skepticism measured a certain tendency that is willing to treat the questioning through confident evidence or information in order to be learnt from the past experiences (Álvarez-Huerta et al., 2022a; Sosu, 2013). When learners increase reflective skepticism, they will endeavor with their challenging understanding or ideas. They always require with different reasonable and sufficient evidence before their judgment. They deny all evaluations that were completed through insufficient, unclarity, unactual, and unreasonable evidence and seek for many perspectives to ensure their rightness (Álvarez-Huerta et al., 2022a; Quinn et al., 2020).

Critical openness refers to specific trends were included with different concepts to build first-hand products or ideas and try to be willingness with these trends considerably that lead to organize and refine as new concepts through explicit data or evidence (Álvarez-Huerta et al., 2022a; Quinn et al., 2020; Sosu, 2013). According to Hosseini and Saha (2018, p. abstract)

clarified that “critical open-mindedness” as a new sociological construct, which can be employed particularly in the studies of social attitudes and attitude change, social values, social identities, cross-cultural relations and social discrimination.” When learner gained critical openness, they enhanced the cognitive flexibility in thinking, after that they began reducing the inflexibility in critical thinking (Price, Ottati, Wilson, & Kim, 2015). Price et al. (2015) clarified learners can open mind to recognize others’ opinions and isolate with own beliefs. They take into account of others’ views without self-perception or self-interest. Learners receive all feedback and accept positive performance feedback and listen to other critics or constructive feedback considerably. They enlighten a new concept by correcting their depth-belief or knowledge (Álvarez-Huerta et al., 2022a; Kruglanski & Boyatzi, 2012; Quinn et al., 2020). Moreover, Riggs (2010, p. abstract) stressed critical openness can be considered “an attitude toward oneself as a believer, rather than toward any particular belief”. By gaining critical openness attitudes, learners required to value epistemology that can be ready a virtuous agent, some detail skills, and critical openness characteristics (Riggs, 2010).

2.3. Definition of learning motivation

Motivation is an aspect of internal or external environment to push up our processing and productivity in daily life. According to and Weiner (1992) explained that “The Latin root of motivation means “to move” and fundamentally, motivational psychologists study what moves people to act and why people think and do what they do” see in (Jacquelynne S Eccles, Wigfield, & Schiefele, 1998, p. abstract). Categorized by Kleinginna and Kleinginna (1981) found on Donald O. Hebb (1955) explained the motivation “here in a rather general sense to the energizing of behavior, and especially to the sources of energy in a particular set of responses that keep them temporarily dominant over others and account for continuity and direction in behavior.” Based on Dörnyei and Ushioda (2013); Jacquelynne S Eccles et al. (1998) included in term of motivation are related with direction and magnitude of people’s behaviours to connect through specific events with choice, persist in actions and expending effort to be responsible for why someone prefer in making decision to do, and be willing to keep in sustainable activities and how challenges they can encounter and solve them through specific times. Explained by Touré-Tillery and Fishbach (2011), people may be motivated by a focal goal (outcome-focused dimension) or doing a thing right (means-focused dimensions). Not only, clarified by Eitam, Kennedy, and Tory Higgins (2013), motivation is not only how people understand about task performance or attainment of outcomes or goal feedback, but it was

increased by other control feedback. So, teacher can prompt many instructions for learner to improve their motivation.

2.3.1. Factor-structures of learning motivation

Clarified by Ryan (2000) on self-determination theory was divided into two aspects of motivation: intrinsic motivation and extrinsic motivation. Intrinsic motivation occurs through doing something because it is intrinsically interesting or pleasurable, and extrinsic motivation occurred via doing something because it has a distinct consequence. Intrinsic motivation requires learners to persevere in reading. Learners were led to build their effort for the intended outcome who are genuinely driven view on their tasks. The activities at work become more interesting and enjoyable consequently (Fishbach & Woolley, 2022).

Intrinsic motivation is referred 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 (Coon & Mitterer, 2012; Edward L. Deci et al., 2001). According to Vallerand et al (1992) shown, there are three aspects of intrinsic motivation as: intrinsic motivation to know, intrinsic motivation to achieve, and intrinsic motivation by experiences. Intrinsic motivation to know is referred to learner's satisfaction in content knowledge and preference to learn from the lessons and insist to know. Intrinsic motivation to achieve is referred to learner's satisfaction in their progress in which learner intend on academic study, is different changes between pre-training and post-training. Intrinsic motivation by experiences refers to learners' experiences what they encountered in the past, both of successful and unsuccessful experiments. Hence, intrinsic motivation can led to mastery learning, performance goal, and life satisfaction (Diseth & Samdal, 2014).

Extrinsic motivation is referred to external rewards to boost potential learning such as: discipline, pressure, performance, competition, evaluation and assessment by teachers or others (Coon & Mitterer, 2012; Robert J. Vallerand et al., 1992). According to Vallerand et al (1992) and Hayamizu (1997) three aspects of extrinsic motivation such as: external regulation, introjection, and identification. External regulation refers to a process was improved by external factor as parents and teachers' force. Introjection refers to a process was produced by reason in their actions and identification is referred a process was produced by task value. So, extrinsic motivation can lead to poor achievement, negative feeling, and using inappropriate teaching technique (Corpus, McClintic-Gilbert, & Hayenga, 2009). However, extrinsic

motivation can build self-regulation and superior changes in secondary education (Otis, Grouzet, & Pelletier, 2005).

Based on Wigfield (2000) found on expectancy-value theory was contributed in motivation agency. Task value is the expected benefit that an individual will experience from performing an activity (Jacquelynne S Eccles et al., 2005; Rotter, 1982). Task value is defined what learners appreciate on the advantage of task and value what they learn (Meece et al., 2009; Wigfield, 1994). Clarified by Paul R Pintrich (1991), task value defined task has been interested, important, and useful by learner's judgement and learner's perceptions are considered task value in term of interest, importance, and utility with learning course. Subjective task value can be improved by attainment value; refer to individual importance of task in completing successfully, intrinsic value; refer to how enjoyed feeling are from doing activities, and utility value; refer to task can connect from present to future learner's goals or direction (Chiu & Wang, 2008). Students' needs are necessary with adequate knowledge and skills from what developed their beliefs in learning skill to solve the problems (Hsieh, 2014; Meece et al., 2009). High task value performance can be involved learners by learning instruction (Paul R Pintrich, 1991).

2.4. Instructional behaviours

A teacher or educator is considered as main imports to support in learning and teaching process. Instructional behaviors are teaching styles or model in training or education to improve learning outcomes (Chilcoat, 1989; Holzberger, Philipp, & Kunter, 2014). However, it is not all of instructional behaviours can develop learners' outcomes, it is just some parts of learning outcomes. On the other hand, critical thinking is a prominent outcome of education among others that were populated in new generation (i.e., collaboration, creativity, problem-solving, and communication). Moreover, we sought that critical thinking were used to measure by many models, but it still can be insufficient. Specified by Aliakbari and Sadeghdaghighi (2013), learners are lower in critical thinking, causing by lacking expectations, self-efficacy, and learners' attitudes. Nonetheless what Aliakbari and Sadeghdaghighi (2013) raised on instructional behaviours, it can ensure to develop critical thinking and lacking of changing instructional strategy in teaching can be decreased the level of critical thinking. Therefore, researchers found some suitable instructional behaviours to increase the critical thinking dispositions.

2.4.1. Factor-structure of instructional behaviours

According to S. Chan, Maneewan, and Koul (2021b, 2021c) supported with effective instructional behaviors in teaching for learning on involvement, structure and autonomy that grounded from self-determination theory. Learning involvement refers to connectivity, relationship, and offering the opportunities in collaboration and cooperation between learners and learners, learners and teachers to produce the environmental study in the classes or outside the classes (Mason, 2013; McBee & Moss, 2002; Pohan, 2003). Based on Pohan (2003) claimed that teachers should be being care and change the conventional method of instruction for managing classroom discipline and behavior by giving students the necessary knowledge, skills, and dispositions. All collaborators should place equal emphasis on social, emotional, ethical, and psychological accomplishments for each student rather than academic success. Additionally, deliberate knowledge-building and intentional collaboration are key components to improving learners' tasks efficiently and learning engagement. Students must stimulate relevant conversation and create a learning environment through cooperative contexts that allow students to use their social skills when interacting with peers (Moon & Ke, 2020). Theoretically, working with students via teachers focuses more on what students can do rather than what students must do for teachers or course training. As a result, students are encouraged to concentrate on how they can succeed while investing their time and effort in a learning procedure (Astin, 1984). Likewise, cooperative learning should be applied appropriately for promoting involvement in learning (S. Chan, Maneewan, & Koul, 2021a; S. Chan et al., 2021c).

Learning structure is a subset of explicit learning information that helps learners complete tasks on purpose with the teachers' guidance and advancing the course study's intended learning outcome effectively (S. Chan et al., 2021b, 2021c; Jang, Reeve, & Deci, 2010). Structured teachers can be adapted with learning process to prompt student's learning outcomes, such as instrumental supports, constructive feedback, claritive explanation on instructions, guideline, and expectations (S. Chan et al., 2021b, 2021c; Mouratidis, Vansteenkiste, Michou, & Lens, 2013; Ryan & Deci, 2020; Van Tassel-Baska, Quek, & Feng, 2006). In addition, Sablić, Mirosavljević, and Škugor (2021) sought an a censuses with video-based instruction that can provide the teacher or student learning's ability become proficiency and classroom progress. Video lecture instruction is considered an attracting online instruction than others (Y. M. Chan, 2010). In addition, Sablić et al. (2021) sought an a censuses with video-based

instruction that can provide the teacher or student learning's ability become proficiency and classroom progress. Video lecture is a reliable instructional design to support in teaching. During setting lessons through videos, teacher requires to set off with brief and targeted on learning goal, using appropriate views and voice of teaching's speech in explanation and explain focus points, highlighting key concepts or ideas with signaling, increasing engagement by speaking conversational and enthusiastic style and incorporating video in a setting that promotes active learning by using interactive elements, leading questions, or relevant homework assignments (Brame, 2015). Even though, there are some challenges with interest assess, teacher can record video lessons keep in memory storage and upload toward for students (Zaneldin, Ahmed, & El-Ariss, 2019). Simultaneously, video-based learning offered clear textual and visual learning criteria that can help learner to solidify their understanding and encourage them to become involvement, leaning satisfaction, increasing motivation and engagements (Yuh-Tyng, 2012). In this sense, the constructs are used to predict on learning structures is support for pre-video lecture. However, indicated by Heng (2014), support and feedback is considered a unique construct on academic engagment and achivements. Besides, the mian issue is involved in reading was found due to lack of enagement by students with feedback and qulatiy of feedback (Crook et al., 2012).

Autonomy support is considered a primary autonomous motivation (Kusurkar & Croiset, 2015) or choiceful accomodation (Edward L Deci & Ryan, 2013) and the quantity of freedom with which learners can choose what they feel is best for their learning control (S. Chan et al., 2021b, 2021c; Skinner & Belmont, 1993). With autonony supportive teachers, learners need to provide with muti-choices and rationales in learning opportunitie, and associating with learner's perpspective, attitude and cognition. They are fulfilled with interests, needs, and satisfaction or preference (S. Chan et al., 2021b; Moon & Ke, 2020; Patall & Zambrano, 2019; Skinner & Belmont, 1993). So, autonomy can guided the learners develop strong automomy that leads to dig out what called their decision through their opportunities and situations autonomously. The information is converted from the environment to inform multiple choices on their times and places. Learner become more flexiblity and reduce harmfulness and increase their intrinsic motivation and self-deminination to control all environment (Edward L Deci & Ryan, 2013). Additionally, autonomy support can enhance percieved accademic competences through intrinsict motivation (Edward L Deci & Ryan, 2013; Guay, Boggiano, & Vallerand, 2001). Teacher should offer satisfactory support for student's autonomy including (1) motivational encouragement, (2) using informational language is better than contolling

language, and (3) help learners can understand the relative aspects of subjective task and the learning technique for them (Taboada Barber et al., 2015).

2.5. Theoretical supports of this study

Obviously, researcher found some relevant theories to support this study. To ensure on responsibilities of research, I sought for self-determination theory, and expectancy theory. After, I will explain how this theory can support in this study as following.

2.5.1. Self-determination theory

Self-determination theory refers to a exploratory influential theory that help to organize and realize some determinants, motivational process, and outcomes in different contexts for people as teachers and students outcomes (Robert J Vallerand, Pelletier, & Koestner, 2008). Much more self-determination's criteria such as intrinsic motivation, integrated and identified motivation can produce more positive outcomes, when the kind of less self-determination criteria of motivation such as introjected and external regulation are less or negative relevant to adaptive outcomes. Consequently, effect of lacking motivation or presenting amotivation can lead to inadequate adaptive outcomes (Robert J Vallerand et al., 2008).

Self-determination theory analyzes the psychological process between initiating and regulatory events in terms of its effects on people understanding about causality and competence. These events initiated and regulated with behaviours, such as providing reward, deadline restriction and feedback. These events will be experienced by receivers via three variables as informational, controlling, and amotivating. If learners are interested on reward as controlling, they can decrease intrinsic motivation. Contrast, if learners are interested on reward as informational, they can increase intrinsic motivation. Positive feedback can be made a controlling as informational to emphasize how the performance of learners to be compared (Adams et al., 2017).

This theory is considered as human motivation theory and personality in social contexts. It included two component of motivations as intrinsic and extrinsic motivations to promote self-determination (Adams et al., 2017; Edward L Deci & Ryan, 2012). Basically, it was adapted to fulfill psychological needs for competence, autonomy and relatedness. Working engagement with strong willingness, decision, and choices was characterized by autonomous motivation. However, quality of self-determination that occurred through psychological

flexibility and choice experiences as inherent motivated behaviours is expressed in some of external motivated behaviours (Adams et al., 2017; Edward L Deci, Olafsen, & Ryan, 2017). Extrinsic motivation can control the autonomy and engagement to improve better performance through some involvements as explicit feedback and supports, and encouraging in ownership and purpose (Adams et al., 2017; Edward L Deci et al., 2017). So, the concept of self-determination is critical supportive the development of extrinsic drive and social adaptation.

Motivation is a key concept to vary in many forms and the most self-determined types of motivation can initiated the most adaptive outcomes. Subsequently, this is reason why we must to go beyond a target on motivational quality in high level of motivation, and take into awareness of motivational quality that it is present or absent of self-determination forms in motivation, as intrinsic motivation, integration, and identified regulations (Robert J Vallerand et al., 2008). When teachers treat students to complete their requirements regularly, motivation may be shaped. Yet, learner's autonomy is offered by teachers, so making decision is relied on their evaluation and reasons. Autonomy support is reasonable by which can be sharpened due to active supports via teachers' ability and activities to improve self-initiating and autonomous for learners (Robert J Vallerand et al., 2008). Obviously, Learners and teachers relationship with important requirements ensured to indicate a powerful chance to complete psychological needs (Edward L Deci, La Guardia, Moller, Scheiner, & Ryan, 2006). Close relationships become a dynamic relatedness. Relatedness support can be a key role to promote the changes and growths for learners as well as autonomy support (Edward L Deci et al., 2017; Robert J Vallerand et al., 2008).

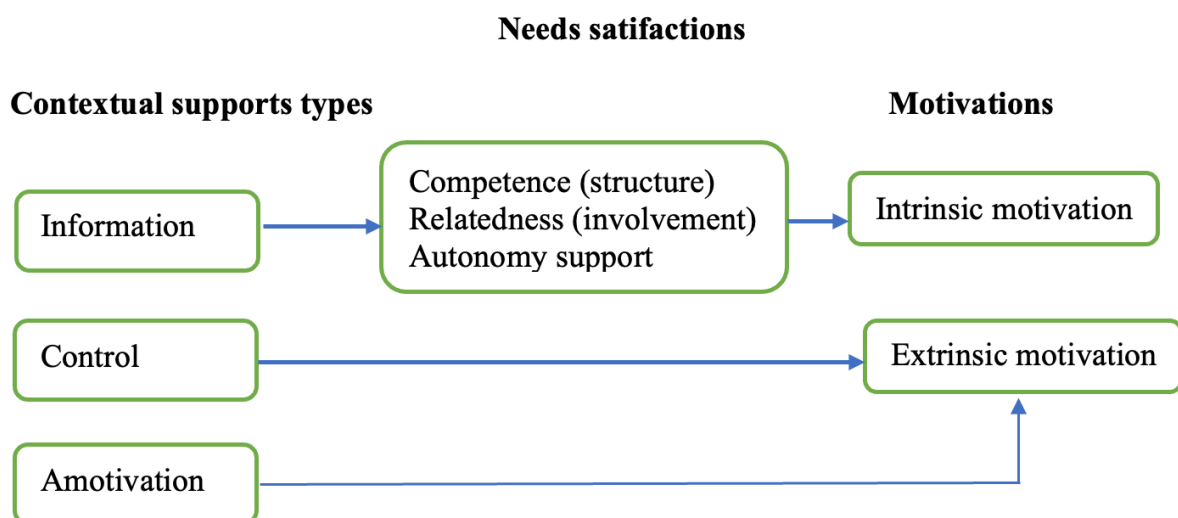


Figure 2.1: Self-determination theory sources and motivations from Adams, Little, and Ryan (2017)

To summarize, the concept of self-determination is fundamental for the development of intrinsic motivation and social adaptability. When less self-determination criteria of motivation, such as introjected and external regulation, are less or negatively relevant to adaptive outcomes, more self-determination criteria of motivation, such as intrinsic motivation, integrated and identified motivation, can produce more positive outcomes. These events were launched and governed by behaviors such as providing a reward, setting a deadline, and providing feedback. However, some externally driven behaviors exhibit the quality of self-determination that occurred because of psychological flexibility and choice experiences as inherent motivated behaviors. Competence, relatedness and autonomy support can play an important role in promoting changes and growth for learners.

2.5.2. Expectancy value theory

The expectation value theory is a theory that focuses on the motivational process to achieve expectations for success and subjective task value that led to achieve performance in a variety of areas and activities to pursue (Jacquelynne S. Eccles & Wigfield, 2020; Wigfield & Eccles, 2000; Wigfield, Tonks, & Klauda, 2009). A variety of social and cultural elements, especially views and activities of parents and teachers, can impact the perceptions and interpretation of learners' characteristics. Individuals' task-specific beliefs, such as self-concepts about competence, objectives, and self-schema, together with affective memories for various outcome events, impact on values and expectations. Individuals' views of other people's behaviors and expectations for them, coupled with their own interpretations of their previous achievement outcomes, all impact on learners' beliefs, goals, and affective memories (Wentzel et al., 2009).

Higgins (2007) discussed five general sources of value for different activities or tasks. These sources include need satisfaction, shared beliefs about desirable outcomes, the relation of one's current self to desired or undesired end states, evaluative inference, one's experiences, and agentic experiences. Need satisfaction is basic and does not involve reflection or cognition. Shared beliefs about desirable outcomes are influenced by culture and social context, with standards of excellence playing a role. The relation between one's actual self and desired end states is crucial, as social comparison helps individuals understand their closeness to the ideal or ought self (see inWentzel et al., 2009).

Proposed by Eccles-Parsons et al. (1983) to support this subjective task value, there are three dimensions such as attainment value, intrinsic value, and utility value, and the level of

effects is determined upon how much students value tasks depends on their cost (See in, Wentzel et al., 2009; Wigfield, Rosenzweig, & Eccles, 2017). Attainment value is a need that includes the challenges (Wentzel et al., 2009). Especially, tasks will make them challenge when learners perceive them as key towards their own sense of personality or as actively encouraging or verify significant personal factors (Wentzel et al., 2009). Based on Putwain, Nicholson, Pekrun, Becker, and Symes (2019), the attainment value moderated indirect relationships between expectations of success and achievement. Higher attainment value increased behavioral engagement, which maintained performance against low success expectations. Additionally, attainment value may be reduced by positive thinking (Pukkeeree, Na-Nan, & Wongsuwan, 2020). The attainment value and expectancy displayed consistent and rising trajectories. Course trajectories were anticipated by the teacher's perceived linkages to real life and enthusiasm (Robinson et al., 2022).

The intrinsic value is referred the enjoyment of one derives from performing the tasks (Wentzel et al., 2009) and refers to the value that an object possesses entirely because of its intrinsic properties (Bradley, 2006; Kagan, 1998; O'Neill, 1992). Someone valued something, they would try to control intentionally it out of damages or dangers (Bayram, 2012). Base on Bayram (2012), valuation is a process that connect between a valuer and the object can be valued and the value of an object may be promoted via human valuer. We cannot isolate an object from all relations in valuation that can lead to an error.

The utility value refers to the ways that task matches into an individual's beliefs and expectations, for example doing a lesson to complete a requirement for a course study. Utility value is comparable to extrinsic motivation in that performing an activity for utility value is served as a tool, not a goal. Utility value is linked to personal aspirations and a sense of identity, so it has some similarities with attainment value (Wentzel et al., 2009). According to Hulleman, Kosovich, Barron, and Daniel (2017) utility value intervention could improve more confident and headed to increase course performance, especially for low-performing students. Assisting learners in seeing the value in their coursework increases interest and achievement (Hulleman, 2007). Critical foundational courses which provide as milestones to more advanced courses and careers frequently see students drop out (Canning & Harackiewicz, 2019). So, it is important to prompt the learner in order to understand what they have to do.

Cost refers to what the individual must abandon in order to complete the task. Negative aspects in engagement in task can conceptualize cost like, anxiety of performance, and fear of

failure and success (Jacquelynne S Eccles & Wigfield, 2002). How much effort is required to achieve and how many opportunities are wasted when one choice is made over another. Choices are influenced by both negative and positive task features, and all choices are considered to have costs because one choice frequently rejects other choices (Nagy, Trautwein, Baumert, Köller, & Garrett, 2006). Choice refers to people's expectations of what they will do in various situations based on their beliefs concerning their abilities as well as the values or incentives that certain activities have for them. Socializers like parents and teachers, personal experiences and how they were interpreted from the past, as well as the individuals' cultural and situational settings, all have the impact on values and beliefs (Shamionov, Grigoryeva, & Grigoryev, 2014).

In conclusion, expectancy theory can be used to teach students to gain feasibility by focusing on their own improvement, not how students practice associated with others. The teacher is able to evaluate the student's learning through the way of student's efforts meaningful and engaging school activities, the relatedness of classroom activities and tasks, teacher's assistance in learning can enhance the student's valuing (Bembenutty, 2012). On the other hand, there are two branches of expectancy as an expectation for success and subjective task value. The different components of subjective task value include attainment value, intrinsic value, utility value, and cost. The problems are part of the necessity of attainment value. Tasks will be particularly challenging when learners perceive them as important to their own sense of personality or as actively promoting or verifying important personal factors. The enjoyment obtained from executing the duties is intrinsic value. A valuer and an object can be connected throughout the valuation process, and a valuer can also help to increase the objective

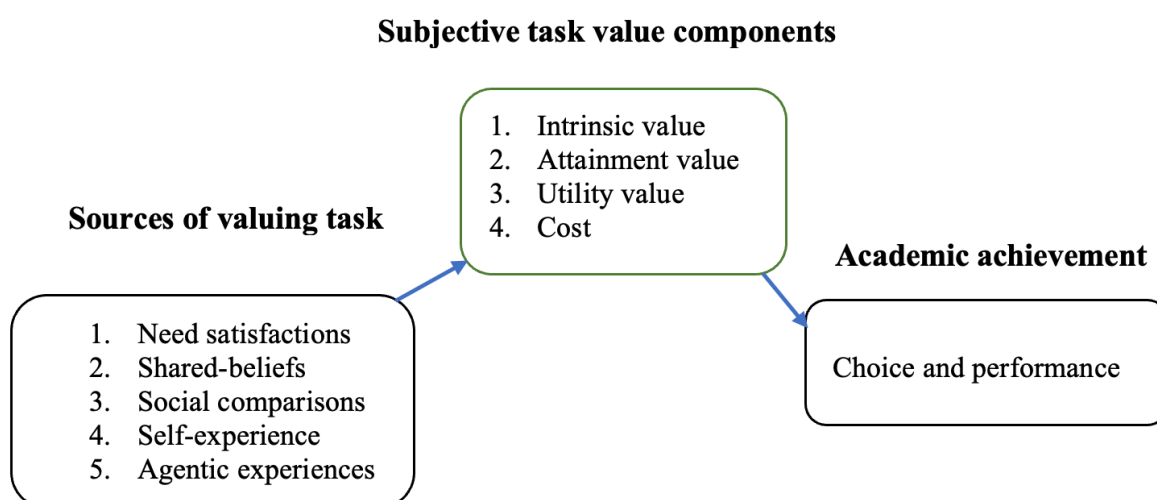


Figure 2.2 :Sources of valuing task, mediating of task value, and academic achievement by Wentzel, Wigfield, and Miele (2009)

value. The utility value relates to how well an activity fits into a person's ideas and expectations, such as when they finish a lesson in order to fulfill a qualification for a course study. Cost is what the person must give up in order to do the work. Negative elements of work involvement include costs such as performance anxiety and fear of success and failure. Choices are influenced by both positive and negative task characteristics, and because one choice frequently rejects other choices, all choices are believed to be affected by costs.

2.6. The effect of expectancy value theory on self-determination theory to promote critical thinking

Needs (SDT) and value (EVT) was considered as a main powerful core with people's situations to perceive in existing positive valence through activities and influential outcomes (Vansteenkiste, Lens, De Witte, & Feather, 2005). The correlation among the duo-theory was analyzed by many scholars. Interpreted by Savolainen (2018), the couple modern theories offered different changes to fulfill informational needs on types of motivations in encouraging informational seeking. Compared by Savolainen (2018), the main correlation of both theories that intrinsic motivations and enjoyments went through the same path, for instant intrinsic motivation consulted to prepare engagement in activities of doing, when intrinsic enjoyment ruled as a main core at the behind of intrinsic motivations. When people were persuaded by values, they strongly persisted in long-internal consistency in people activities. Based on Assor, Kaplan, and Roth (2002), critical thinking was improved by subjective task value directly. Additionally, Beachboard, Beachboard, Li, and Adkison (2011) found through Self-determination theory that both peer and faculty relatedness can improve positively motivation and higher-order thinking and they became the significant predictors with learning outcome which are relevant with literacy, critical thinking and job preparations. Moreover, proved by Berger et al. (2020); Valenzuela, Nieto, and Saiz (2011) was considered expectancy value theory components as motivation for critical thinking. In conclusion, both of theory can be a sufficient support with this study to predict critical thinking dispositions.

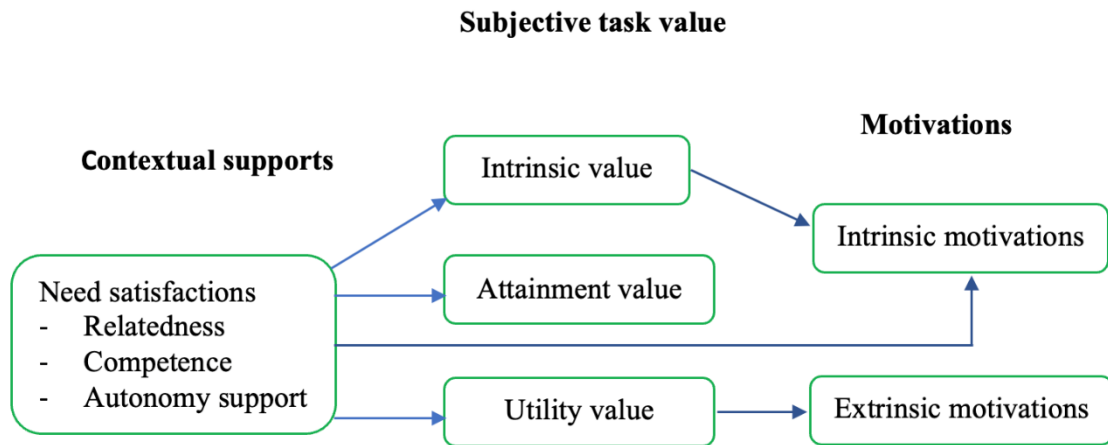


Figure 3.3: Relationship between sources of self-determination theory, types of task value and, motivations

2.7. The impacts of previous studies

Found by S. Chan et al. (2021b, 2021c) that studied on effective instructional behaviours (autonomy support, instructional clarity, support and feedback, and support for cooperative learning) on pre-service teachers of academic engagement and teaching self-efficacy by using learning motivation as mediator. 601 of pre-service teachers in second year volunteered for data collection. Using structural equation modeling, it was discovered that pre-service teachers' perceptions of teacher educators' teaching methods are significantly correlated with their intrinsic motivation and academic engagement or teaching self-efficacy.

Studied by Griffin (2016), autonomy support in effective instructional behaviors might enhance much more positive outcomes in the classroom. Especially, intrinsic motivation and engagement. Data was collected from 47 courses of graduated education among 914 students to determine if autonomy support and intrinsic motivation can predict the effective instructional behaviours in college classroom. As the result, it was found that autonomy support and intrinsic motivation might be incorporated with effective instructional behaviors dimensions. As well, intrinsic motivation becomes a moderator in association with autonomy support and instruction. It means less predictive autonomy support led to higher intrinsic motivation. Hence, including classroom activities with autonomy support might manage in empower the students' perceptions that they can elevate their motivation and learning.

Additionally, Kwarikunda, Schiefele, Muwonge, and Ssenyonga (2022) studied with secondary school students on autonomy support and intrinsic motivation to ensure life-long

learning strategy. Using 576 students incorporated with self-reported questionnaires. Four learners' profiles were clustered as competent strategy user, struggling users, surface-level learners, and deep-level learner. This study indicated the difference among the learners' groups. Girls were more significantly predictive through competent strategy use and surface-level learner profile with intrinsic motivation and autonomy support. Moreover, deep-level learner profiles can be predicted with higher level of intrinsic motivation when teacher autonomy predicted into competent strategy users.

According to Farzaneh and Nejadansari (2014) studied using cooperative language learning techniques to estimate students' attitude on reading comprehension with Iranian context. The students' attitude was utilized survey questionnaires to measure. As the result, it found that many students would like to support with cooperative learning technique to enhance in teaching and learning reading comprehension. Similarly, Jalilifar (2010) sought for cooperative learning can promote reading comprehension level for EFL reading achievement as well. Clarified by Shaaban (2006) support for cooperative learning can lead the vocabulary in use, reading motivation (value of reading and reading self-concept) for students at primary school (EFL learners).

Defined by Supanc, Völlinger, and Brunstein (2017) there are different significant between low-structure and higher-structure of cooperative learning. To perceive self-competence such as utility and intrinsic value, higher-structure group might enhance feasibility of learners' performance better than low-structure. Not only, Cooper (1995, p. 7) clarified about relationship between cooperative learning and critical thinking that “ quality of performance is expected, and higher level reasoning strategies and critical thinking are needed.” Likewise, Sadeghi (2012) examined on critical thinking in an Iranian university with 72 college learners (EFL) by supporting for cooperative learning. As result, learners increase their changes on critical thinking and instructor should adapted in the Iranian academic setting. Moreover, Warsah, Morganna, Uyun, and Afandi (2021) investigated on collaborative learning on critical thinking and address Islamic radicalism and critical thinking retention. Total of students were 40 from department at University in Bengkulu, Indonesia that they volunteered to engage in this experiment. Nine of them volunteered as purposive selection in qualitative participations. The result revealed that collaborative learning can have positive effect on learners' critical thinking skill and build the retention of critical thinking. Moreover, learners perceived what collaborative learning can be a part to contribute with their emotional awareness, learning

motivation, cognitive development, and broad-mindedness. In addition, Warsah et al. (2021) suggested other researchers should construct a theoretical study as critical thinking, learning motivation, cognitive development and social competence.

Evidenced by Awidi and Paynter (2019) who studied on flipped classroom with online quizzes, in-class activities, and pre-video record lecture. This study was to measure learners' satisfaction (students' motivations, engagement, and confidence) through biology course for college students. Overall, students become more higher satisfactions through each element of flipped classroom. Especially, pre-video lecture and learning structure in class can lead learners to advance their learning experience. As well, Lim, She, and Hassan (2022) also adapted for pre-recorded video and live-lecture to compare for students' satisfaction and academic achievement during covid-19 pandemic with 552 learners from four facilities of private university in Malaysia by using Structural Equation Modeling (SEM). The result expressed that pre-recoded video lecture has gained positive effect on online-learning satisfaction for learners for three faculties as Social Science, Business and Medical Science. However, Faculty of Innovation and Technology was improved more positively through online lecture with learners' satisfactions. Unfortunately, all faculties' students were rejected for their effects on academic achievements. This study suggested that instructor should focus on pedagogical content, not only content knowledge of each lesson that can ensure learners to engage in term of learning experiences. Relatedly, Huang (2020) premeditated an in-house platform that permit students can download videos for watching before, during and after-reading. Students need to complete four flipped reading lesson per semester. Consequently, students increase their autonomy for classroom activities, making decision independently, and improve engagement out of the class time as well.

According to WANG and Guthrie (2004) examined the motivational process on text comprehension. This study was adapted with fourth graders. Data was administered by Structural Equation Modeling with reading tests and reading motivation questionnaires. As the result, intrinsic motivation predicted the text comprehension. However, extrinsic motivation cannot predict text comprehension, except if it was combined with intrinsic motivation. Text comprehension might not be predicted by the amount of reading, but different cultures can influence each component of reading text. In addition, suggested by Taboada, Tonks, Wigfield, and Guthrie (2009) motivation can contribute in reading comprehension individually from their background knowledge and questioning. It means that motivation can become an influent

construct directly on reading comprehension and likewise, Wigfield (1997) found reading motivation can be a unique aspect in reading.

Evidenced by Fung (2017) cooperative support with an experimental design among forty secondary school students in Hong Kong, was found to perceive critical thinking dispositions positively. Not only, with teacher's support and constructive feedback with learning tasks, cooperative learning was more influent to improve critical thinking increasingly. Found by Cargas, Williams, and Rosenberg (2017) with qualitative study, using subjective task (challenging task) with corrective feedback are useful for many fields in education that might improve both of critical thinking (i.e., skills and dispositions). Found by Leader and Middleton (2004) with experimental design among five components of problem based-learning is autonomy learning support can be improved critical thinking dispositions.

2.7. Conceptual framework of study

Along with many findings with theory and empirical studies, researcher prepared as conceptual frameworks that can be an explicit model. A big part of factor has been studied; however, pre-video lecture has not been studied with critical dispositions, subjective task value. So, this is a gap in looking for a new predictor on critical thinking dispositions. As follows, researcher could seek for a new model to predict critical thinking dispositions.

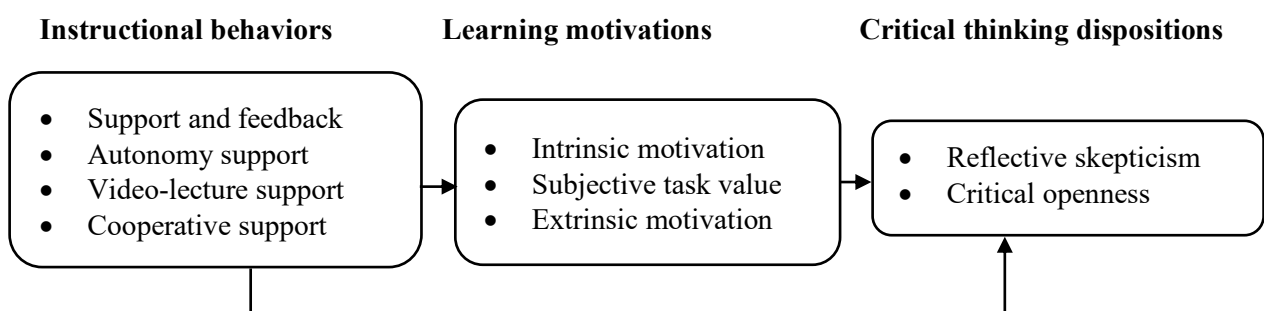


Figure 2.4: The relationship model of critical thinking dispositions

2.8. Summary of research study

In summary of research study was focus on how to improve critical thinking dispositions (i.e., reflective skepticism and critical openness) through effective instructional behaviors (i.e., support and feedback, autonomy support, pre-video lecture, and cooperative support), and learning motivation (i.e., intrinsic motivation, extrinsic motivation, and subjective task value). Critical thinking dispositions refer to type of emotional thinking to prompt thinking skill for

learner. Moreover, it is measured by two factors: reflective skepticism and critical openness. Reflective skepticism refers to how to evaluate something through explicit evidence and reasonable, before judging something to learn from past experience. Critical openness refers to how well in thinking for creating a new idea from old concepts with explicit evidence. Learning motivation refer to an internal and external catalysts to push the students' interest in learning. However, there have been many factors of learning motivations. Otherwise, based on self-determination theory, learning motivation was divided into two factors: 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 tasks like, reward, punishment, and discipline. On the other hand, another motivation theory is expectancy value theory was considered learner can be motivated through subjective task value. Subjective task value refers to enjoyment, interest, and importance that learner can receive after completing the task to define mastery goal or learning. It is not only the contextual factor that call "instructional behavior" refers to some techniques that teachers or educators set up to support for learners. Involvement, learning structure, and autonomy support were adapted with instructional behaviors that grounded from self-determination theory. Involvement refers to teachers involving students to increase confidential profit between them, like support and feedback. Learning structure refers to how to support students by teacher with explicit instruction like offering with learning techniques such as cooperative learning and video lecture. Autonomy support refers to the amount of freedom that were offered by teacher for student in making decision for doing task. To support with three factors, researcher employed with autonomy support, pre-video lecture, and cooperative learning. The last, can link each factor to create a new model for researcher study and can look for a new way to solve the problem with reading comprehension through critical thinking dispositions model.

CHAPTER 3

METHODOLOGY

This research study has discovered correlational research which design to examine the effects and how instructional behaviors and learning motivation can predict critical thinking. This research intended to study on three objectives as: (1) to study the relationship between instructional behaviours, learning motivation, and critical thinking dispositions and, (2) to examine the effects of instructional behaviours and learning motivations on critical thinking dispositions. The research details will be specified below.

3.1. Population and Sample

The population of this study is high school students who have been studying in Kampong Chhnang province of Cambodia. Sample size was determined by the rule of thumb to select an appropriate sample size. Base on J. Hair, Hollingsworth, Randolph, and Chong (2017); Tanaka (1987) defined that the suitable sample should consist of ten to twenty times if compares with number of items in the research model. In this study, there are 50 items that were measured from nine main constructs. Hence, an accurate sample size of this study was at least 500 samples. Convenience random sampling was utilized to select participant from students have been studying from grade 8th to 10th of high school grades ($M = 2.09$, $SD = .86$), the age from 13 to 18 years old ($M = 1.57$, $SD = .50$), and they were from three provinces ($M = 1.78$, $SD = .85$) of Cambodia (i.e., Kampong Cham, Prey Veng, and Kampong Chhnang).

3.2. Research instruments

Measures of each subscale of instructional behaviours (i.e., support and feedback, autonomy support, support for video lecture, and support for cooperative learning), of learning motivation (i.e., intrinsic motivation, extrinsic motivation, and subjective task value), and of critical thinking depositions (i.e., reflective skepticism and critical openness) were constructed using the technique of translation and back-translation (Behling & Law, 2000). First, the original scales in English were adapted by the researchers and then translated into Khmer by two bilingual Cambodian lecturers. Using the translated version, we translated the scales back into English. After that, we compared the Khmer and the English versions of the scales to see if each item was able to match the initial meaning. Finally, the Khmer version of the scales was applied to 50 high school students – 8th, 9th and 10th graders– to evaluate the appropriateness of each item, before collecting data with 515 of 8th to 10th graders. In this study, a self-report

method was used to assess subjective perceptions of the items in each adapted scale, which might lead to response bias. In all the scales, students had to rate each item on a 5-point Likert scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”).

In order to determine the factor structure of the initial scale applied to 515 students, EFA was conducted. Prior to EFA, for the purpose of testing whether the sample size was enough to conduct EFA, the value of Kaiser–Meyer–Olkin (KMO) was examined. A KMO value higher than 0.50 means that factor analysis can be continued (Kaiser, 1974). The KMO value in the present study was 0.83. In order to determine the factor structure of the scale, Principal Factor Analysis was used as the extraction method, and Promax, an orthogonal rotation method, was applied. In deciding on the number of factors, parallel analysis was used. Other statistical values were also taken into account to see if each item could remain in its factor. These include communality values of greater than 0.50, eigenvalue of greater than 1, and factor loadings of 0.50, or ideally, of 0.70 or higher (J. F. Hair, Black, Babin, & Anderson, 2019). In this study, The EFA results revealed nine factors, including support and feedback, autonomy support, video lecture support, cooperative learning, intrinsic learning motivation, extrinsic learning motivation, subjective task value, reflective skepticism, and critical openness. The model accounted for 56.05 percent of the total cumulative variance. Factor loadings of all items in each factor ranged between 0.39 and 0.69 with the eigenvalue greater than 1, and the communality values ranged from 0.568 to 0.788 (see Table 3.2.1).

Table: 3.2.1. Factor loadings, eigenvalues, communalities, and percentage of variance.

Items	Factor loadings									Communality
	<i>SF</i>	<i>AS</i>	<i>VS</i>	<i>CS</i>	<i>IM</i>	<i>EM</i>	<i>SV</i>	<i>RS</i>	<i>CO</i>	
SF2	.714									0.54
SF3	.614									0.46
SF6	.729									0.60
AS1		.714								0.51
AS2		.700								0.53
AS3		.666								0.57
AS4		.704								0.56
VS1			.638							0.51
VS2			.646							0.45
VS3			.714							0.58
VS4			.756							0.61
VS5			.680							0.51
VS6			.633							0.54
CS1				.783						0.65
CS2				.813						0.68

CS3						.605				0.48
CS5						.639				0.47
IM1						.674				0.48
IM2						.623				0.44
IM3						.641				0.46
IM4						.580				0.39
IM5_D						.568				0.44
EM1						.605				0.63
EM2						.783				0.62
EM3						.770				0.62
EM4						.760				0.61
EM5						.754				0.58
SV1							7.88			0.64
SV2							.818			0.69
SV3							.625			0.48
RS2_D								.784		0.62
RS4								.657		0.47
RS5								.701		0.56
CO5									.577	0.45
CO6									.779	0.65
CO7									.776	0.61
Eigenvalue	1.131	1.593	4.289	2.216	1.784	3.782	1.249	2.499	1.864	
% Variance	6.651	9.371	25.23	13.03	13.72	29.09	9.607	41.65	14.39	
Cumulative % variance	54.29	47.64	38.27	38.27	42.81	29.09	52.42	41.65	56.05	

For this analysis, construct validity and construct reliability were assessed. To ensure construct validity, convergent and discriminant validities were calculated. According to J. F. Hair et al. (2019), convergent validity is acceptable when most factor loadings in each measure are 0.70 or higher with its average variance extracted (AVE) of 0.50 or higher. Construct reliability (CR) was calculated to determine adequate convergence or internal consistency. To ensure this, construct reliability should be 0.70 or higher (J. F. Hair et al., 2019). In this present study, the construct reliability for support and feedback, autonomy support, video-lecture and cooperative learning were 0.73, 0.83, 0.84 and 0.81, respectively, with the AVEs of 0.47, 0.48, 0.46 and 0.51, respectively. The construct reliabilities for intrinsic learning motivation, extrinsic learning motivation, and subjective task value were 0.75, 0.89 and 0.79, respectively, with the AVEs of 0.38, 0.54 and 0.55, respectively. The construct reliabilities for reflective skepticism, and critical openness were 0.76, and 0.76, respectively, with the AVEs of 0.51, and 0.51, respectively. These statistical values ensure acceptable convergent validity, which means that a set of observed variables in each subconstruct converges a high proportion of variance in common in that latent construct (J. F. Hair et al., 2019). Moreover, discriminant validity is

acceptable when its AVE is greater than its maximum shared variance (MSV) and its average shared variance (ASV). In the present study, the AVE for each latent variable was higher than its MSV and ASV (see Table 3.2.2), demonstrating acceptable discriminant validity, which means that all the latent variables are different from each other.

Table 3.2.2: Results of α , CR, AVE, MSV and ASV of all latent variables.

Latent variables	α	CR	AVE	MSV	ASV
Instructional behaviors					
Support and feedback	.57	.73	.47	.18	.09
Autonomy support	.73	.83	.48	.15	.07
Video lecture support	.78	.84	.46	.15	.06
Cooperative support	.75	.81	.51	.27	.13
Learning motivation					
Intrinsic motivation	.63	.75	.38	.19	.13
Subjective task value	.81	.89	.54	.13	.09
Extrinsic motivation	.60	.79	.55	.10	.07
Critical thinking dispositions					
Reflective skepticisms	.60	.76	.51	.27	.14
Critical openness	.60	.76	.51	.25	.13

Importantly, CFA was used to validate all the measures in the Cambodian context. 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) were judged for model fit of CFA (J. F. Hair et al., 2019; Rex B. Kline, 2016). When there are more than 250 participants and 30 or more observed variables, the characteristics of model fit are 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 (J. F. Hair et al., 2019). As Rex B. Kline (2016) suggests, it is excellent fit when RMSEA is less than 0.05 and it is acceptable fit when RMSEA is below 0.08. In this study, the CFA results also revealed that the measurement model fits the empirical data very well $\chi^2(541,515) = 873.629$, $p < .001$, CFI = .93, TLI = 0.92, SRMR = 0.046, and RMSEA = 0.035, suggesting that all the measures were able to match the Cambodian context.

Table: 3.2.3 CFA result of all latent variables

Observed Variables	Factor loading		t	R ²	Factor loading coefficient
	β	S.E.			
SF2	.610	.041	14.730	.372	.178
SF3	.450	.046	9.727	.203	.089
SF6	.630	.042	15.136	.397	.202
AS1	.486	.043	11.377	.236	.066
AS2	.566	.040	14.210	.320	.095
AS3	.703	.035	20.327	.494	.185
AS4	.675	.035	19.146	.456	.154

VS1	.536	.037	14.436	.288	.048
VS2	.623	.038	16.319	.388	.146
VS3	.669	.031	21.538	.448	.106
VS4	.764	.030	25.091	.583	.245
VS5	.564	.036	15.828	.318	.091
VS6	.549	.037	14.845	.301	.082
SC1	.706	.030	23.255	.499	.197
SC2	.682	.031	21.866	.466	.182
SC3	.635	.034	18.923	.403	.138
SC5	.561	.037	15.196	.314	.121
IM1	.493	.040	12.275	.243	.071
IM2	.601	.040	15.010	.361	.183
IM3	.537	.042	12.675	.288	.105
IM4	.503	.040	12.549	.253	.069
IM5	.589	.045	13.076	.347	.160
EM1	.576	.035	16.515	.331	.086
EM2	.704	.028	24.768	.496	.118
EM3	.732	.027	27.016	.535	.131
EM4	.720	.028	25.891	.518	.133
EM5	.660	.031	21.514	.435	.095
SV1	.496	.045	11.043	.246	.067
SV2	.527	.044	11.852	.278	.091
SV4	.675	.042	16.095	.456	.225
RS2	.607	.038	16.018	.368	.124
RS3	.500	.040	12.504	.250	.077
RS5_D	.614	.037	16.646	.377	.131
CO5	.578	.040	14.601	.335	.131
CO6	.597	.040	14.815	.357	.135
CO7	.565	.041	13.913	.320	.123

Chi-sq (df = 541, N = 515) = 873.629, $p < .001$, CFI = .93, TLI = .92, SRMR = .046, RMSEA = .035

Instructional behaviors

Scales on instructional behaviors were adapted from prior studies (S. Chan et al., 2021a, 2021b, 2021c; Heng, 2014; Long, Logan, & Waugh, 2016). Instructional behaviors were measured in terms of students' perceptions of their teachers' support and feedback (three items, e.g., 'My teacher offered helps to you when you had (a) problem(s) with my homework or exercise')(Heng, 2014), of their teachers' autonomy support (four items, e.g., 'My teacher accepted my suggestions how to doing homework or exercise that I sought') (S. Chan et al., 2021b), of their teacher's video lecture support (six items, e.g., The lesson were well-explained in the video lecture) and of their involvement in cooperative learning (five items, e.g., 'When I did group work, I discussed my ideas with other students in my group.')(S. Chan et al., 2021a). The Cronbach's alpha values for support and feedback, autonomy support, video lecture support and cooperative learning were 0.57, 0.73, 0.78 and 0.75, respectively, suggesting acceptable and good internal consistency.

Learning motivation

Scales on learning motivation was adapted from Paul R. Pintrich, Smith, Garcia, and McKeachie (1991). Students' learning motivation was measured in terms of their intrinsic

learning motivation (five items, e.g. 'I prefer course material that arouses my curiosity, even if difficult to learn'), extrinsic learning motivation (five items, e.g. 'The most important thing for me, is improving my overall grade or point average') and subjective task value (three items, e.g., I think the course material is useful for me to learn). The Cronbach's alpha values for intrinsic learning motivation and extrinsic learning motivation were 0.63, 0.81 and 0.60, respectively, indicating good internal consistency.

Critical thinking dispositions

Scales on critical thinking dispositions were adapted from previous studies (Sosu, 2013). Students' critical thinking dispositions were tapped through their perceived reflective skepticism (three items, e.g. 'I often think about my actions to see whether I could improve them.') (Sosu, 2013), and perceived critical openness (three items, e.g. 'It's important to understand other people's viewpoint.') (Sosu, 2013). The Cronbach's alpha values for reflective skepticism and critical openness were 0.60, and 0.60, respectively, which indicated good internal consistency.

3.3. Data collection

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.

3.4. Data analysis

Data analysis with statistical process was applied via samples' data to address the research's questions. We examined the direct path coefficients between three latent variables of instructional behavior, three latent variables of learning motivation, and two latent variables of critical thinking dispositions in order to answer the objectives of study. Data analysis was performed using SPSS software and Mplus 7 software (Muthén & Muthén, 1998–2012). Moreover, we verified for normal distribution. The skewnesses and kurtosis of each item were used to determine the data's normal distribution. The most typical skewness and kurtosis values are -1 to +1 and -1.96 to +1.96, respectively (Joseph F. Hair, 2019). Normality violation and missing data did not appear in the analysis. Multicollinearity was checked, according to T. Kline (2005), the multicollinearity develops when the intercorrelation between variables or

items is more than 0.85. Furthermore, the association between aspects of teacher's instructional behavior, learning motivation, and critical thinking dispositions of high school students was examined using structural equation modeling. Importantly, the good-of-fit (GFI) model is a fundamental measure of divergences between the observed and estimated covariance matrices and it shows how well a model reproduces the observed covariance matrix between indicators or items. Model fit with data was evaluated using chi-square (χ^2), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Standardised Root Mean Squared Residual (SRMR), and Root Mean Squared Error of Approximation (RMSEA) (Joseph F. Hair, 2019; Rex B Kline, 2015). Moreover, measures of model fit include chi-square with significant p-values, CFI or TLI is above 0.92, SRMR is lesser than 0.08 with CFI is above 0.92, and RMSEA is less than 0.07 with CFI is 0.92 or higher for sample sizes of more than 250 and observed variables of above 30 items (Joseph F. Hair, 2019). Furthermore, a fit model is certainly not excluded when CFI is 0.96 or higher and SRMR is 0.10 or lesser than (Hu & Bentler, 1999). Obviously, excellent model fit is indicated that CFI is higher than 0.94 and SRMR is lesser than 0.06, respectable model fit is indicated that CFI is from 0.90 to 0.94 and SRMR is lesser than 0.06, and acceptable model fit is indicated that CFI is from 0.90 to 0.94 and SRMR is from 0.06 to 0.10 (Jöreskog, Sörbom, & Du Toit, 2001). According to Rex B Kline (2015) Excellent model fit is indicated when RMSEA is lesser than 0.05, while acceptable model fit is indicated that RMSEA is lesser than 0.08.

CHAPTER 4

RESULTS

The two objectives of this study were to: (1) study the relationship between aspects of instructional behaviors, learning motivation, and critical thinking dispositions, and (2) examine the effects of instructional behaviors and learning motivations on critical thinking dispositions. The results of the study were separated into two parts. Part I, researcher used the descriptive statistics to characterize with data and Part II, researcher used structural equation modeling (SEM) with data to be consistent with research questions or purpose of research study. The specifics of the analysis results will be listed below.

4.1. Relationship between aspects of instructional behaviours, learning motivations, and critical thinking dispositions

Through table 4.1 was indicated correlation between each latent subconstructs. Moreover, we verified for normal distribution. The skewnesses and kurtosis of each item were range from -0.523 to -0.055 and -0.187 to 1.317 respectively determine the data's normal distribution that are the most typical skewness and kurtosis values (Joseph F. Hair, 2019). In addition, all latent variable expressed the level of correlation from low to moderate (0.059 to 0.515) that can eliminate multicollinearity problems (T. Kline, 2005). Moreover, the perceptions of support and feedback, autonomy support, video lecture support, and cooperative support were positively correlated with intrinsic motivation, extrinsic motivation, subjective task value, reflective skepticism, and critical openness. Subjective task value was positively correlated with intrinsic motivation, extrinsic motivation, reflective skepticism, and critical openness. As well, intrinsic and extrinsic motivation were positively correlated with reflective skepticism, and critical openness.

Table 4.1: Descriptive statistics and Pearson's correlations between latent variables (N = 515)

Variables	IB				LM		CD		
	SF	AS	VS	CS	IM	EM	SV	RS	CO
SF	-	.269**	.164**	.421**	.333**	.191**	.363**	.353**	.282**
AS		-	.387**	.232**	.317**	.205**	.153**	.188**	.284**
VS			-	.245**	.264**	.238**	.059	.287**	.236**
CS				-	.413**	.227**	.327**	.515**	.406**
IM					-	.318**	.356**	.427**	.439**
EM						-	.285**	.257**	.298**

<i>SV</i>								-	.346**	.313**
<i>RS</i>									-	.496**
<i>CO</i>										-
Mean	40.91	34.71	34.34	39.30	39.34	37.73	42.62	39.39	38.65	
SD	.470	.663	.614	.498	.436	.630	.490	.469	.528	
Skewness	-.145	-.307	-.375	-.231	-.055	-.523	-.119	-.232	-.233	
Kurtosis	.322	.290	1.094	.748	.359	1.027	-.187	1.317	.631	

Note: **p <.01, *p<.05

SF = support and feedback, AS = autonomy support, VS = video lecture support, CS = cooperative support, IM = intrinsic motivation, EM = extrinsic motivation, SV = subjective task value, RS = reflective skepticism, and CO = critical thinking dispositions

4.2. Aspects of instructional behavior and learning motivation are associated with critical thinking dispositions

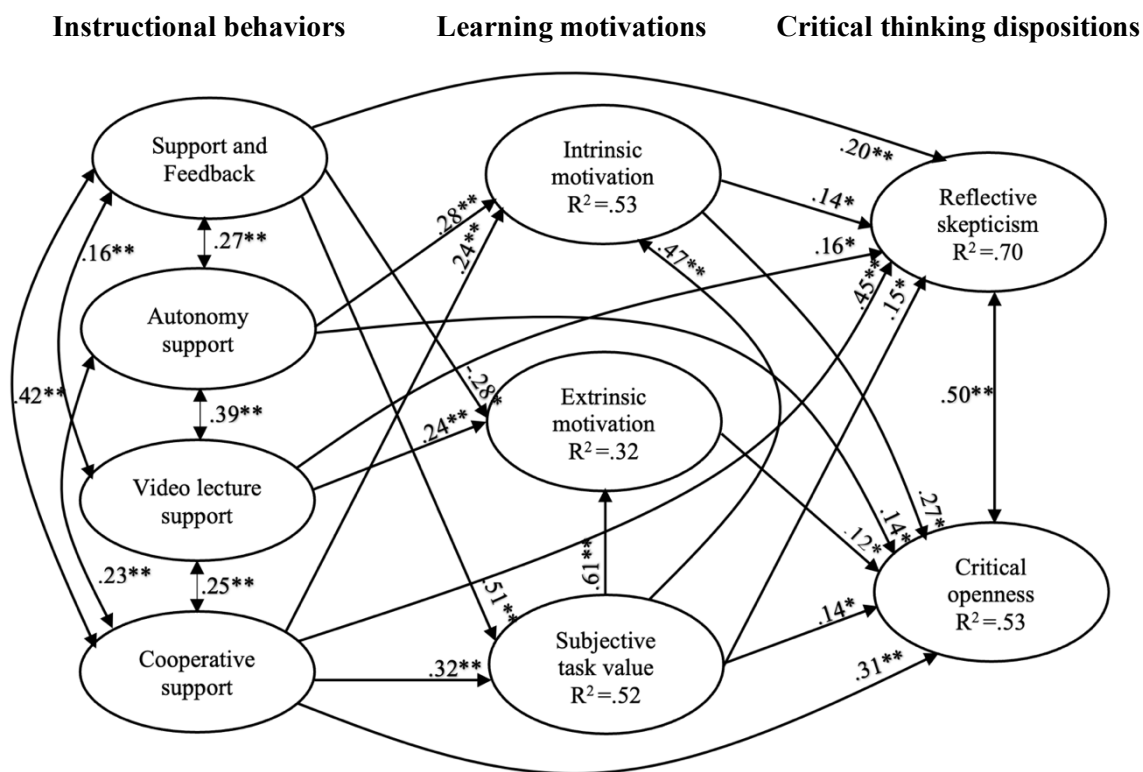


Figure 4.5:Standardised coefficients for model of high school students' perceptions of learning motivation mediating the relations between their perceptions of instructional behaviours and critical thinking dispositions (N = 515)

Notes: *p < 0.05; **p < 0.01

Figure 4.1 revealed standardized path coefficients of latest model with significant path. The entire model was found that perception of learning motivation (i.e., intrinsic motivation,

extrinsic motivation, and subjective task value) mediated the relationship between the perceptions of instructional behaviors (i.e., support and feedback, autonomy support, video lecture support, and cooperative support) and perceptions of critical thinking dispositions (i.e., reflective skepticism and critical openness). Totally, fit of this latest model was excellent, $\chi^2(542,515) = 875.157$, $p < 0.001$, CFI = 0.93, TLI = 0.92, SRMR = 0.046, and RMSEA = 0.035. The model reported for a large portion of the variance in the outcome such as, $R^2 = 0.53$, 0.52 and 0.32 for intrinsic motivation, subjective task value and extrinsic motivation, respectively; $R^2 = 0.70$ and 0.53 for reflective skepticism and critical openness, respectively.

4.3. Direct and indirect effects of instructional behaviours, learning motivation on critical thinking dispositions

Table 4.2 shows the significant direct and indirect effects of instructional behavior on learning motivation and critical thinking depositions. As can be seen in Figure 4.1 for direct effect, the perceptions through high school students that teacher set up with adequate support and feedback was positively associated with high school students' subjective task value ($\beta = 0.51$), reflective skepticism ($\beta = 0.20$), however, it was associated with extrinsic motivation negatively ($\beta = -0.28$) and no directly effects with intrinsic motivation and critical openness. Moreover, the perception of high school students that teacher offered them for autonomy learning were positively associated with intrinsic motivation ($\beta = 0.28$) and critical openness ($\beta = 0.13$) but, no directly effects with extrinsic motivation, task value, and reflective skepticism, video lecture support was positively associated with extrinsic motivation ($\beta = 0.24$) and reflective skepticism ($\beta = 0.13$), but no directly effects with intrinsic motivation, subjective task value and critical openness, and cooperative support was positively associated with intrinsic motivation ($\beta = 0.24$), subjective task value ($\beta = 0.32$), and critical openness ($\beta = 0.31$) and reflective skepticism ($\beta = 0.45$), but no directly effects with extrinsic motivation. On the other hand, subjective task value was most predictive with intrinsic and extrinsic motivation, and critical thinking disposition aspects (e.g., reflective skepticism and critical openness).

Additionally, indirect effects between instructional behavior (i.e., support and feedback, autonomy support, video lecture support, and cooperative support) and some of learning motivation (i.e., intrinsic and extrinsic motivation) and critical thinking dispositions (i.e., reflective skepticism and critical openness). Perceptions of teacher's support and feedback were indirectly predicted with intrinsic motivation ($\beta = 0.24$), and extrinsic motivation ($\beta =$

0.31), and lower indirectly effects with reflective skepticism and critical openness, autonomy support was lower to predict indirectly with extrinsic motivation, critical openness and reflective skepticism and no effect indirectly with intrinsic motivation, video lecture support was no indirectly effects with other aspects, and then, cooperative support for learning was indirectly predicted intrinsic motivation ($\beta = 0.5$), extrinsic motivation ($\beta = 0.19$), reflective skepticism ($\beta = 0.11$), and critical openness ($\beta = 0.17$). In conclusion, the most influent mediator of this model was subjective task value and the strongest predictors were cooperative support, when intrinsic were the most effective contributor with critical thinking dispositions.

Table 4.2: Direct, indirect, and total associations for Figure 4.1

Effect	Standardized coefficient (β)		
	Direct	Indirect	Total
On subjective task value			
Support and feedback	.508**	-	.508**
Autonomy support	-.004	-	-.004
Video-lecture support	-.072	-	-.072
Cooperative support	.321**	-	.321**
On intrinsic motivation			
Subjective task value	.473**	-	.473**
Support and feedback	-.116	.24**	.124*
Autonomy support	.284**	-.002	.283**
Video-lecture support	.053	-.034	.019
Cooperative support	.244**	.152**	.396**
On Extrinsic motivation			
Subjective task value	.605**	-	.605**
Support and feedback	-.284*	.308**	.023
Autonomy support	-.002	.121	.119*
Video-lecture support	.235**	-.044	.191**
Cooperative support	-.025	.194**	.169*
On reflective skepticism			
Subjective task value	.152*	.106	.258*
Intrinsic motivation	.135*	-	.135*
Extrinsic motivation	.070	-	.070
Support and feedback	.20*	.096	.295**
Autonomy support	-.130	.046	-.084
Video-lecture support	.156*	.005	.161*
Cooperative support	.454**	.114**	.568**
On Critical openness			
Subjective task value	.144*	.197**	.341**
Intrinsic motivation	.267*	-	.267*
Extrinsic motivation	.117*	-	.117*
Support and feedback	-.042	.109	.068
Autonomy support	.136*	.089	.225**
Video-lecture support	.030	.017	.047
Cooperative support	.310**	.172**	.482**

Note: ** $p < .01$, * $p < .05$

CHAPTER 5

DISCUSSION

As mentioned in Chapter1, the purpose of this study was to: (1) study the relationship between aspects of instructional behaviors, learning motivation, and critical thinking dispositions, and (2) examine the effects of instructional behaviors and learning motivations on critical thinking dispositions. In this chapter, researcher discussed about how teacher and counterpart can use this result.

5.1. Discussion

The correlational design examined the relationship between perceptions of instructional behaviours of high school student (i.e., support and feedback, autonomy support, and video lecture support and cooperative support) and high school student's learning motivation (i.e., intrinsic learning motivation, extrinsic learning motivation, and subjective task value), critical thinking dispositions (i.e., reflective skepticism, and critical openness). As researcher reviewed, these instructional supports used to study with some level of students, however, it was rarely studied with critical thinking dispositions. So, this design was expressed with preferent result.

5.1.1 Effects on learning motivation

In this study, researcher sought those instructional behaviors of teacher valued as pertinent actors in inspiring with students in high school level. This used to be accepted with many studies as Adams et al. (2017); Assor et al. (2002); S. Chan et al. (2021b, 2021c). Among these instructional supports, cooperative support was influent predictor of subjective task value and intrinsic motivation (S. Chan et al., 2021b, 2021c). That maybe, teachers offered sufficient cooperative support on learning such as permitting them to teach each other, share ideas, and take care with other students through learning tasks, so students can be perceived the value of learning such as interest, importance and enjoyment and they may be strive to be curious with what they learn (S. Chan et al., 2021a). Moreover, autonomy support was the most important predictor to promote intrinsic motivation, that teachers could effectively offer them with how they want to learn and what they want to do with their learning task to attract them become deep-understanding what considered the inner-advantages of study such mastery learning, curiosity, and taking risk in doing challenging task (Robert J Vallerand et al., 2008). As well,

it was not predicted for task value or extrinsic motivation, due to weakness of learner (remedial learner), they have not valued what they learn, and it can draw attention to the fact that remedial students are more inclined to come from underprivileged backgrounds and have received subpar education (George, 2012). However, support and feedback were negative effect on extrinsic motivation, it means when high school students were pioneered on problem-solving, offering constructive feedback and encouragement, they might reduce external motivation and increase internal motivations that were supported above self-determination theory (Adams et al., 2017; Beachboard et al., 2011; Edward L Deci et al., 2017; Edward L Deci & Ryan, 2012, 2013; Ryan & Deci, 2020; Savolainen, 2018; Robert J. Vallerand et al., 1992; Robert J Vallerand et al., 2008; Vansteenkiste et al., 2005). Moreover, feedback can exert negative effects on students' motivation because they tend to redirect students' focus from addressing problems to competing with peers, or please the teacher or their parents (Lipnevich & Smith, 2008). However, task value was not associated with, due to contextual factor was found by OECD for Asian countries (i.e., Japan and Singapore) (Guo & Wang, 2021). Video lecture support was only associated with extrinsic motivations, as it perhaps when learner encounter with some types of video lectures that it just attracted them with outsole-emotions, so, they require to provides a substantial contribution to video lecture development efforts and serves as an invaluable resource for choosing the right kind of video lecture for online learning. (C.-M. Chen & Wu, 2015). Otherwise, researchers found that subjective task value considered the most effective on intrinsic and extrinsic motivation. These can be supported, when student considered what they learnt, can improve them to fulfill their goal that they become deep-in-soul to come up with issues in learning (S. Chan et al., 2021b, 2021c).

5.1.2 Effects on critical thinking dispositions

In this study, researchers found that teacher's instructional behaviors significantly contributed to improve critical thinking dispositions among high school students. Support and feedback predicted with reflective skepticism, it means when learner perceived what instructor offer, they gain the curiosity or doubts though treatment. Students automatically become interested and look for what they think it is possible for. However, support and feedback not predicted with critical openness that maybe when learner was supported with teachers, they were lower with critical openness (i.e., when teacher offer full aid with their learning, so it covered on what are consider their specific understanding. They focus on what instructor accounted for them by depending on types of feedback (George, 2012). Autonomy support

predicted with critical openness, due to when learner was offered freedom of learning with choice, they were prompted to take a risk in making decision through learning course. They strive to recover what are deal with their course to critics via prior knowledge. However, autonomy support did not predict with reflective skepticism, due to contextual factors as studied by OECD as regions, culture and curriculums to support in education policy. Teachers in countries with low levels of autonomy, such as Japan and Singapore, planned to employ critical thinking-promoting techniques more frequently. However, Australia and the US, two countries with low levels of collaboration, preferred to enhance pupils' specialized thinking abilities (Guo & Wang, 2021). Video lecture support predicted with reflective skepticism; it refers to students were improved with skeptical thinking style that learner looks around with doubt and engage with prior knowledge and evidence. However, video lecture has no predicted with critical openness directly, due to lower engagement in learning process thank to types of video lecture and pedagogical practice (H.-T. M. Chen & Thomas, 2020). Moreover, it was obviously due to contextual factor as how to prepare inadequate support with educational curriculum and economic statue in the country (Kalyuga, 2008).

We sought that learner tend to self-evaluation, literate information, and think before acts (reflective skepticism), as well as, reasonable thinking, open-mindedness, and evidential clarity with choice (critical openness), when teachers provided them with sufficient support and constructive feedback, autonomy support for learning, video lecture support and cooperative support for learning. However, cooperative support were the most influent predictors of high school student's critical thinking dispositions (Sadeghi, 2012). As found by Fung (2017), forty secondary school students in Hong Kong who participated in an experimental design with cooperative assistance were shown to positively assess critical thinking tendencies. Also, cooperative learning had a greater influence on the development of critical thinking as a result of the teacher's encouragement and helpful criticism of learning activities. They can discuss their ideas with group members such as peer-teaching, and peer-feedback. And then, they were offered video lectures to clarify what they learn with clear explanation, and correlate with what they learn in the class (i.e., homework, exercise, and test) (Brame, 2015; Huang, 2020; Lim et al., 2022; Long et al., 2016; Moon & Ke, 2020; Sablić et al., 2021; Yuh-Tyng, 2012; Zanelidin et al., 2019).

Upsetting through the relationship with learning motivation and critical thinking dispositions, research requested that three elements of learning motivation were importantly

predicted of two element of critical thinking depositions. This finding revealed that high school students are more likely interested in what they think that it is importance, interesting, and enjoyment (Berger et al., 2020), getting other's recognition, and effort in learning that are lead with cooperative learning, freedom of learning, and video instrumental support (Cooper, 1995; Farzaneh & Nejadansari, 2014; Jalilifar, 2010; Sadeghi, 2012; Shaaban, 2006; Supanc et al., 2017). As can be found with the five components of problem-based learning, Leader and Middleton (2004), that improving critical thinking dispositions can be promote autonomy in learning support.

CHAPTER 6

CONCLUSION

The objectives of this study, as stated in Chapter 1, was to: (1) study the relationship between aspects of instructional behaviors, learning motivation, and critical thinking dispositions; and (2) examine the effects of instructional behaviors and learning motivations on critical thinking dispositions. In this chapter, the researcher concludes on how the results can be used by the teacher and counterparts.

6.1. Conclusion for implications

Despite the limitation with this study, this correlational research obviously broadened the understanding instructional teaching style will be used to support student's critical thinking and learning motivations. this is newest study have no studied in general knowledge education in Cambodia, more video lecture support with massive online open courses (MOOC) has never analyzed with critical thinking dispositions or skills. Hence, we found four influent instructional behaviors for teacher that teacher should use such as teacher's support and feedback, (i.e., timely and constructive feedback, and encouragement,) autonomy learning (i.e., learning style, peer, and topical choice in learning) , video instrumental support (i.e., clear explanation, linking between video lesson and textbooks, offering sufficient time to watch, and free-place in learning through video lecture) , and cooperative support for learning (i.e., peer support and teaching, peer-instructions, and social interaction). These instructions exert significant and positive effects on high school students' learning motivation and critical thinking dispositions. As well, it might push the level of critical thinking skill and reading comprehension for learners from secondary school to high school. As be purified, between two motivations theories (. i.e., self-determination theory, and expectancy value theory) can be defined the effects that can be explained intrinsic properties of human's mind (i.e., interest-enjoyment, importance, usefulness, curiosity, willingness, and challenging task) were mediated outstandingly through critical thinking dispositions, is more likely impressive than reward, punishment, and controlling through cognitive education.

Moreover, our finding confirmed that instructional behaviors have direct and indirect effects on high school students' learning motivations and critical thinking dispositions that can be used to prepare in instructional or teaching model, and classroom management. Sum up

with, teacher or educators can adapt each item that clarify the needs for learners in general knowledge level. As well, counterparts and MoEYS can introduce all indicators, if they prefer to fulfill with educational policy through curriculum and instructions. Importantly, teacher educators who have been serving in RTTC (Regional Teacher Training Centre) may make a decision to improve their training abilities through these instructions.

6.2. Suggestions for implications

Eventually, prior research studies always contributed through factorial-based study. As can be seen via significance of study, this research study was very impressive to seek for new supports for Cambodia contexts to support for educational sector with three layers: academic level, educational policy level, and theoretical and practical level. As well, researcher suggest and recommend as following:

Academic level

A can be proposed through this study, (1) to study the relationship between instructional behaviours, learning motivations, and critical thinking dispositions, and (2) to examine the effects of instructional behaviours and learning motivation on critical thinking dispositions. After surveying among secondary and high school students amount of 515, the finding indicated the needs for practitioners or teachers to improve their teaching in general knowledge and lead to improve the feasibility of educations to reach into world competition and will be honorable for Cambodia education. However, to promote the learning motivation and critical thinking were found, researcher recommend that teachers should (1) concern with learning choice with tasks (i.e., homework, exercise, peer-work, and group-work) that can build their interest to concentrate on learning process, (2) support with sufficient learning structure that teachers require to offer clear support such video lecture with clear explanation, linking with homework or exercise in the textbooks, be available for free-time, and free-places through learning courses, as well as, adequate support and feedback (i.e., constructive and timely feedback, encouraging to ask the question) on what they do with learning, especially reading course (3) provide an involvement with them that teachers permit them to get an opportunity to build group learning as cooperatively, (i.e., cooperative learning, peer support such as peer-constructive feedback, peer-teaching, and peer-assistance) that deal with their thinking styles as critical thinking dispositions (i.e., self-evaluation, reasoning thinking, optimal cognition, mind-understanding, and evidence-based decision), and match among their interest(

enjoyment, importance, usefulness, intention, and curiosity) during academic year in general knowledge educations to enhance the efficient and effective instructions to fulfill national and international goals to promote human's critical thinking, especially teenagers are upper of 15 years old.

Educational policy level

As can be revealed above, this study was (1) to study the relationship between instructional behaviours, learning motivations, and critical thinking dispositions, and to examine the effects of instructional behaviours and learning motivation on critical thinking dispositions. Like, we have exhibited on views of this study that revealed instructional behaviours grounding by self-determination theory, was suited with Cambodia contextual study. Among indicators of instructional behaviours should be promoted through educational curriculum and instructions by increasing teaching training courses or seminars. Likewise, this research study was taken apart of innovation the educational sector in Cambodia, policy makers and stakeholders, and MoEYS who would like to improve pedagogical knowledge for teachers' training, should make decisions through each indicator to adapt for training about them. When they study about this finding, they will set up with their teaching at public school to improve a huge change of student's learning among general knowledge learning. They might be attracted the most of students at high school to pursue 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 with sustainable development goals.

Theoretical and practical level

Seriously, theoretical study was contemplated as a main product of research study. Little is known about self-determination theory can be supported with educational context in Cambodia. After research studies should increase specific indicators among subscales of each main constructs. To keen specific evidence and create new correlation out of instructional behaviours, learning motivations, or critical thinking dispositions. As have been know, autonomy used to divide into six dimensions (Verhoest, Peters, Bouckaert, & Verschuere, 2004), subjective task value was connected with four dimensions (Shang, Moss, & Chen, 2022), and different types of feedback, so on. So, the next study should be specified and sharpened each subscale.

6.3 Limitations and suggestions for future research

Similarity with most studies, in this correlation design with this model was limited in general educational level. However, we have seen that some effects of constructs were shown insufficient effect to promote, so researcher should try to develop this study instrument, that can ensure the reliability and validity of measurement with participants. Moreover, researchers suggest to future research should apply this model with college students. Otherwise, if the next study would like to replicate this study, they should adapt the research instrument with teachers in secondary school and high school to ensure logic of measurement of instrument. On the other hand, the next study should use mix-method study to clarify some effects were not appeared in this study. last, but not least, get a dominant benefit from this study to develop the teaching style for all teachers in the same level of study that can make sure numerous high school students can be received real education in Cambodia to be appropriated with sustainable development goal.

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APPENDICES

Instructional behaviors

Support and Feedback ($\alpha = .65$)

1. My teacher enabled students of different abilities to answer the questions.
គ្រូរបស់ខ្ញុំបានឱ្យសិស្សមានសមត្ថភាពខុសៗគ្នា ឆ្លើយសំណួរ។
 2. My teacher offered helps to you when you had (a) problem(s) with my homework or exercise.
គ្រូរបស់ខ្ញុំបានផ្តល់ដំណោះស្រាយផ្សេងៗ នៅពេលខ្ញុំមិនចេះធ្វើកិច្ចការផ្ទះ ឬលំហាត់។
 3. My teacher praised you when you did well on homework or exercise.
គ្រូរបស់ខ្ញុំបានសរសើរខ្ញុំ ពេលខ្ញុំចេះធ្វើកិច្ចការផ្ទះ ឬលំហាត់បានត្រឹមត្រូវ ។
 4. My teacher checked your homework.
គ្រូរបស់ខ្ញុំបានត្រួតពិនិត្យកិច្ចការផ្ទះ ឬលំហាត់របស់ខ្ញុំ ។
 5. My teacher checked if I had learnt the material well before going on to new material.
គ្រូរបស់ខ្ញុំបានរំលឹកមេរៀនចាស់ មុននឹងបន្តទៅមេរៀនថ្មី។
 6. My teacher gave well-feedback that helped improve your understanding.
គ្រូរបស់ខ្ញុំបានផ្តល់គំនិតល្អៗដល់ខ្ញុំ ធ្វើឱ្យការយល់ដឹងរបស់ខ្ញុំ កាន់តែប្រសើរឡើង។
 7. My teacher gave you feedback on my homework or exercise.
គ្រូរបស់ខ្ញុំបានកែកិច្ចការផ្ទះ ឬលំហាត់។
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Autonomy support ($\alpha = .72$)

1. My teacher decided with me on who I learn or do group work with.
គ្រូរបស់ខ្ញុំបានឱ្យខ្ញុំជ្រើសរើសក្រុម ឬសិស្ស ដើម្បីធ្វើការងារក្រុមជាមួយគ្នា។
 2. My teacher let me choose homework or exercise that match my own interests.
គ្រូរបស់ខ្ញុំបានឱ្យខ្ញុំជ្រើសរើសលំហាត់ ឬកិច្ចការផ្ទះ យកទៅធ្វើដោយខ្លួនឯង។
 3. My teacher accepted my suggestions how to doing homework or exercise that I sought.
គ្រូរបស់ខ្ញុំបានយល់ស្របតាមការចង់បានរបស់ខ្ញុំ នូវរបៀបធ្វើកិច្ចការផ្ទះ ឬលំហាត់ ដែលខ្ញុំរកបាន។
 4. My teacher accepted my suggestions with who I prefer to do group work with. (Develop)
គ្រូរបស់ខ្ញុំបានយល់ស្របតាមការចង់បានរបស់ខ្ញុំ ក្នុងការជ្រើសរើសក្រុម ឬសិស្ស ដែលខ្ញុំចង់ធ្វើការងារក្រុមជាមួយ។
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Video lecture support ($\alpha = .80$)

1. I like viewing pre-class videos better than reading text materials
ខ្ញុំចូលចិត្តរៀនតាមវីដេអូបង្រៀន ជាងគ្រូដាក់ឱ្យរៀនជាអត្ថបទ ឬសៀវភៅពុម្ព។
 2. The videos were helpful because I could do them on my own time.
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វីដេអូបង្រៀនមានប្រយោជន៍ នៅត្រង់ថាខ្ញុំចង់មើលវាពេលណាក៏បាន។

3. I think video-lecture learning were easy to learn from the lesson.

ខ្ញុំគិតថា ការរៀនតាមវីដេអូបង្រៀន ធ្វើឱ្យខ្ញុំងាយយល់មេរៀន។

4. The lesson were well-explained in the video lecture.

នៅក្នុងវីដេអូបង្រៀន មានការពន្យល់ក្បោះក្បាយល្អ។

5. The video-lecture were helpful for completing the homework or exercise.

វីដេអូបង្រៀនមានប្រយោជន៍ដល់ខ្ញុំ ក្នុងការធ្វើកិច្ចការផ្ទះ ឬលំហាត់។

6. The videos lecture were more helpful for completing the in-class activities.

វីដេអូបង្រៀន អាចជាជំនួយក្នុងការបំប៉នបន្ថែមដល់ខ្ញុំ មុនពេលរៀនក្នុងថ្នាក់។

Cooperative support ($\alpha = .79$)

1. When I did group work, I discussed my ideas with other students in my group.

នៅពេលពិភាក្សាក្រុម ខ្ញុំបានចូលរួមផ្តល់យោបល់របស់ខ្ញុំ ជាមួយសិស្សដទៃនៅក្នុងក្រុម។

2. When I did group work, I tried to understand other students' ideas in my group.

នៅពេលពិភាក្សាក្រុម ខ្ញុំបានព្យាយាមយល់ពីគំនិតរបស់សិស្សដទៃនៅក្នុងក្រុម។

3. When I did group work, I taught or helped other students in my group when they encounter problems with some point in groupwork.

នៅពេលពិភាក្សាក្រុម ខ្ញុំបានជួយបង្រៀនសិស្សដទៃនៅក្នុងក្រុម នៅពេលពួកគេមិនយល់ត្រង់ចំណុចណាមួយ។

4. When I did group work, I got constructive feedback from other students in my group.

នៅពេលពិភាក្សាក្រុម ខ្ញុំបានទទួលមតិយោបល់កែលម្អ ពីសិស្សដទៃនៅក្នុងក្រុម ។

5. When I did group work, I collaborated with other students in my group to prepare group work.

នៅពេលពិភាក្សាក្រុមខ្ញុំបានចូលរួមរៀបចំការងារក្រុមជាមួយសិស្សដទៃ។

Learning motivations

Intrinsic motivation ($\alpha = .65$)

1. I prefer course material that I can learn a new thing.

ខ្ញុំពេញចិត្តមេរៀន ដែលខ្ញុំគិតថាខ្ញុំអាចរៀនអ្វីថ្មីៗ។

2. I prefer course material that arouses my curiosity, even if difficult to learn.

ខ្ញុំពេញចិត្តមេរៀនដែលធ្វើឱ្យខ្ញុំប្រឹងប្រែងរៀនសូត្រ ទោះបីជាវាពិបាករៀនបន្តិចក៏ដោយ។

3. I mostly satisfied, is learning the course material as possible as I can.

ខ្ញុំពេញចិត្តខ្លាំងបំផុត ចំពោះការរៀនមេរៀនដែលសមស្របនឹងសមត្ថភាពរបស់ខ្ញុំ។

4. I choose homework or exercise that I can do, even if I don't guarantee to get a good grade.

ខ្ញុំជ្រើសយកលំហាត់ ឬកិច្ចការផ្ទះដែលខ្ញុំគិតថាអាចធ្វើបាន ទោះបីខ្ញុំមិនប្រាកដថាធ្វើត្រូវ ឬទទួលបានពិន្ទុល្អក៏ដោយ។

5. I choose the course material that I can learn from it, even if I don't guarantee to get understanding. (develop)

ខ្ញុំជ្រើសរើសមេរៀនដែលខ្ញុំអាចរៀនបាន ទោះបីខ្ញុំមិនប្រាកដថា រៀនចេះក៏ដោយ។

Extrinsic motivation ($\alpha = .83$)

1. The most satisfying for me, is getting a good grade.

ខ្ញុំពេញចិត្តខ្លាំងបំផុតនៅពេលដែលខ្ញុំបានពិន្ទុច្រើន។

2. I want to get better grade than most of the other students in the class.

ខ្ញុំចង់បានពិន្ទុច្រើនជាងសិស្សដទៃទៀតនៅក្នុងថ្នាក់។

3. I want perfect grade to show my ability to others in this class.
-

ខ្ញុំចង់បានចំណាត់ថ្នាក់ល្អ ឬលេខ១ ដើម្បីឱ្យអ្នកដទៃទទួលស្គាល់សមត្ថភាពរបស់ខ្ញុំ។

4. The most important thing for me, is improving my overall grade or point average.
ខ្ញុំចង់បានខ្លាំងជាងគេ គឺការកើនពិន្ទុគ្រប់មុខវិជ្ជា។
5. My main concern is getting a perfect grade in this class.
ខ្ញុំតែងតែគិតខ្វល់ខ្វាយខ្លាំងជាងគេ គឺខ្ញុំចង់បានចំណាត់ថ្នាក់ល្អ ឬលេខ១។

Subjective task value ($\alpha = .74$)

1. I think I will be able to use what I learn in my school to fulfill my future.
ខ្ញុំគិតថា ការរៀនមុខវិជ្ជានីមួយៗ អាចប្រើប្រាស់ដើម្បីសម្រេចក្តីស្រឡាច់ចិត្តរបស់ខ្ញុំ នៅថ្ងៃអនាគត។
2. I think it is important for me to learn the course material for my future.
ខ្ញុំគិតថា ការរៀនមុខវិជ្ជានីមួយៗ ពិតជាមានប្រយោជន៍ដល់ខ្ញុំ នៅថ្ងៃអនាគត។
3. It is very interested in each course material.
ខ្ញុំពិតជាចាប់អារម្មណ៍ចង់រៀនមុខវិជ្ជានីមួយៗ ណាស់។
4. I think the course material is useful for me to learn
ខ្ញុំគិតថា មុខវិជ្ជានីមួយៗ គឺមានតម្លៃសម្រាប់ខ្ញុំ។
5. I like learning the course material that I learn in my school.
ខ្ញុំចូលចិត្តមេរៀនតាមមុខវិជ្ជា ដែលខ្ញុំរៀនក្នុងសាលារៀនរបស់ខ្ញុំ។
6. I think, understanding the course material is very important to me
ខ្ញុំគិតថា ការយល់ពីមេរៀនតាមមុខវិជ្ជា គឺចាំបាច់ណាស់សម្រាប់ខ្ញុំ។

Critical thinking dispositions

Reflective skepticism ($\alpha = .72$)

1. I always re-evaluate my experiences.
ខ្ញុំតែងតែរៀនសូត្រពីរឿងដែលខ្ញុំបានជួប ឬធ្វើកន្លងមក ។
2. I always re-evaluate my experiences to learn from them.
ខ្ញុំតែងគិតពីរឿងដែលខ្ញុំបានជួប ឬធ្វើកន្លងមក ដើម្បីធ្វើការកែលម្អ។
3. I always check source of information whether it should be creditable before making judgements or believing.
ខ្ញុំតែងគិតពីអ្វីដែលខ្ញុំដឹងថាតើគួរឱ្យទុកចិត្តបានទេ មុននឹងខ្ញុំសម្រេចចិត្តថាជឿ ឬធ្វើរឿងអ្វីមួយ។
4. I always think about the wider implications of a decision before taking action.
ខ្ញុំតែងគិតពីលទ្ធផលដែលអាចកើតឡើង មុននឹងខ្ញុំសម្រេចចិត្តធ្វើរឿងអ្វីមួយ។
5. I often think about my actions to see whether I could improve them.
ខ្ញុំតែងគិតពីទង្វើខ្លួនឯងកន្លងមក ដើម្បីមើលថា តើខ្ញុំអាចមានភាពប្រសើរឡើងទេ។

Critical openness ($\alpha = .75$)

1. I always think about the bigger picture during a discussion.
ខ្ញុំតែងគិតពីគំនិតយោបល់រួមរបស់ក្រុម នៅក្នុងការធ្វើអ្វីមួយ។
2. I always use new ideas to shape (modify) the way I do things.
ខ្ញុំតែងប្រើគំនិតថ្មីៗ ដើម្បីរៀបចំ របៀបធ្វើអ្វីមួយ។
3. I always seek for new ideas from different source (reading book, searching on internet, asking others, searching in library....)
ខ្ញុំតែងស្វែងយល់ពីគំនិត ឬចំណេះដឹងថ្មីមួយ ចេញពីប្រភពជាច្រើន (អានសៀវភៅ រកតាមអ៊ីនធឺណែត សួរមិត្តភក្តិ ចូលបណ្ណាល័យ...)
4. I am always on the lookout for new ideas.
ខ្ញុំតែងរកមើលគំនិត ឬចំណេះដឹងថ្មីៗ។
5. I sometimes find a good argument that challenges some of my firmly held beliefs.

ពេលខ្លះ ខ្ញុំក៏បានគំនិតសមហេតុផល ដែលផ្ទុយពីគំនិតរបស់ខ្ញុំកាលពីមុនទាំងស្រុង។

6. It's important to understand other people's viewpoint.
ខ្ញុំគិតថា វាចាំបាច់ក្នុងការយល់ពីគំនិតរបស់នរណាម្នាក់។
7. I think it is important to justify my understanding or choices I make.
ខ្ញុំគិតថា វាចាំបាច់ក្នុងការបញ្ជាក់ពីភាពត្រឹមត្រូវ នូវការយល់ឃើញរបស់ខ្ញុំ ឬអ្វីដែលខ្ញុំជ្រើសយក។

កម្រងសំណួរព័ត៌មានផ្ទាល់ខ្លួនរបស់សិស្ស

ផ្នែកទី១: ព័ត៌មានផ្ទាល់ខ្លួន

ភេទ ៖	1. ☐ ប្រុស	2. ☐ ស្រី
អាយុ ៖		
ប្រភេទសាលា៖	1. ☐ អនុវិទ្យាល័យ	2. ☐ វិទ្យាល័យ
ខេត្ត៖	1. ☐ ព្រៃវែង	2. ☐ កំពង់ចាម 3. ☐ កំពង់ឆ្នាំង

ផ្នែកទី ២៖ កម្រងសំណួរ

ចូរប្តូរអានឈ្មោះនីមួយៗដោយយកចិត្តទុកដាក់ដើម្បីជៀសវាងការយល់ច្រឡំ។ ចូរគូសរង្វង់ចំពោះ លេខតំណាង ដែលបង្ហាញពីការពិតរបស់ប្អូននៅក្នុងដំណើរនៃការសិក្សា។

ល.រ	លេខ ១ មានន័យថា មិនយល់ស្របសោះ, លេខ ២ មានន័យថា មិនយល់ស្រប, លេខ ៣ មានន័យថា មិនប្រាកដ លេខ ៤ មានន័យថា យល់ស្រប, លេខ ៥ មានន័យថា យល់ស្របទាំងស្រុង					
១. ការផ្តល់នូវការគាំទ្រ និង យោបល់ស្ថាបនា						
១	ត្រូវរបស់ខ្ញុំតែងសរសើរខ្ញុំ ពេលខ្ញុំចេះធ្វើកិច្ចការផ្ទះ ឬលំហាត់បានត្រឹមត្រូវ ។	១	២	៣	៤	៥
២	ត្រូវរបស់ខ្ញុំតែងតែត្រួតពិនិត្យកិច្ចការផ្ទះ ឬលំហាត់របស់ខ្ញុំ ។	១	២	៣	៤	៥
៣	ត្រូវរបស់ខ្ញុំផ្តល់យោបល់ល្អៗ ធ្វើឱ្យការយល់ដឹងរបស់ខ្ញុំមានភាពប្រសើរឡើង។	១	២	៣	៤	៥
២. ការផ្តល់សេរីភាពក្នុងការរៀន						
៤	ត្រូវរបស់ខ្ញុំតែងឱ្យខ្ញុំជ្រើសរើសលំហាត់ ឬកិច្ចការផ្ទះ យកទៅធ្វើដោយខ្លួនឯង។	១	២	៣	៤	៥
៥	ត្រូវរបស់ខ្ញុំតែងឱ្យខ្ញុំជ្រើសរើសក្រុម ឬមនុស្ស ដើម្បីធ្វើការងារក្រុមជាមួយគ្នា។	១	២	៣	៤	៥
៦	ត្រូវរបស់ខ្ញុំតែងយល់ស្របតាមការចង់បានរបស់ខ្ញុំ ក្នុងការធ្វើកិច្ចការផ្ទះ ឬលំហាត់។	១	២	៣	៤	៥
៧	ត្រូវរបស់ខ្ញុំតែងយល់ស្របតាមការចង់បានរបស់ខ្ញុំ ក្នុងការជ្រើសរើសក្រុម ឬមនុស្ស ដែលខ្ញុំចង់ធ្វើការងារក្រុមជាមួយ។	១	២	៣	៤	៥
៣. ការផ្តល់វីដេអូបង្រៀន						
៨	ខ្ញុំចូលចិត្តរៀនតាមវីដេអូ ជាងគ្រូដាក់ឱ្យរៀនជាអត្ថបទ ឬសៀវភៅពុម្ព។	១	២	៣	៤	៥
៩	វីដេអូបង្រៀនមានប្រយោជន៍ នៅក្នុងខ្ញុំចង់មើលវាពេលណាក៏បាន។	១	២	៣	៤	៥
១០	ខ្ញុំគិតថារៀនតាមវីដេអូ ធ្វើឱ្យខ្ញុំងាយយល់មេរៀន។	១	២	៣	៤	៥

១១	នៅក្នុងវីដេអូបង្រៀន មានការពន្យល់ក្បោះក្បាយល្អ។	១	២	៣	៤	៥
១២	វីដេអូបង្រៀនគឺមានប្រយោជន៍សម្រាប់ការធ្វើកិច្ចការផ្ទះ ឬលំហាត់។	១	២	៣	៤	៥
១៤	វីដេអូបង្រៀន គឺជាជំនួយ ក្នុងការបំប៉នបន្ថែមដល់ខ្ញុំ ដល់ការរៀនក្នុងថ្នាក់។	១	២	៣	៤	៥
៤. ការផ្តល់ការរៀនបែបសហការ						
១៥	ខ្ញុំបានចូលរួមផ្តល់យោបល់របស់ខ្ញុំ ជាមួយសិស្សដទៃនៅក្នុងក្រុម។	១	២	៣	៤	៥
១៦	ខ្ញុំបានព្យាយាមយល់ពីគំនិតរបស់សិស្សដទៃនៅក្នុងក្រុម។	១	២	៣	៤	៥
១៧	ខ្ញុំបានជួយបង្រៀនសិស្សដទៃនៅក្នុងក្រុម នៅពេលពួកគេមិនយល់មេរៀន។	១	២	៣	៤	៥
១៨	ខ្ញុំបានទទួលមតិកែលម្អ ពីសិស្សដទៃនៅក្នុងក្រុម ។	១	២	៣	៤	៥
១៩	ខ្ញុំបានចូលរួមរៀបចំការងារក្រុម ជាមួយសិស្សដទៃ។	១	២	៣	៤	៥
៥. ការជំរុញទឹកចិត្តពីខ្លួនឯងផ្ទាល់						
២០	ខ្ញុំពេញចិត្តមេរៀន ដែលខ្ញុំគិតថាខ្ញុំអាចរៀនអ្វីថ្មីៗ។	១	២	៣	៤	៥
២១	ខ្ញុំពេញចិត្តមេរៀនដែលធ្វើឱ្យខ្ញុំចេះប្រឹងប្រែងរៀនទោះបីជាវាពិបាករៀនបន្តិចក៏ដោយ។	១	២	៣	៤	៥
២២	ខ្ញុំពេញចិត្តខ្លាំងបំផុត ចំពោះការស្វែងយល់មេរៀន តាមតែខ្ញុំអាចធ្វើបាន។	១	២	៣	៤	៥
២៣	ខ្ញុំជ្រើសរើសលំហាត់ដែលខ្ញុំអាចធ្វើបាន ទោះបីខ្ញុំមិនប្រាកដថាទទួលបានពិន្ទុល្អក៏ដោយ។	១	២	៣	៤	៥
២៤	ខ្ញុំជ្រើសរើសមេរៀនដែលខ្ញុំអាចរៀនបាន ទោះបីខ្ញុំមិនប្រាកដរៀនចេះក៏ដោយ។	១	២	៣	៤	៥
៦. ការជំរុញទឹកចិត្តដោយកត្តាខាងក្រៅ						
២៥	ការទទួលបានពិន្ទុច្រើន ជារឿងដែលខ្ញុំពេញចិត្តបំផុត។	១	២	៣	៤	៥
២៦	ខ្ញុំចង់បានពិន្ទុច្រើនជាងសិស្សដទៃទៀតនៅក្នុងថ្នាក់។	១	២	៣	៤	៥
២៧	ខ្ញុំចង់បានចំណាត់ថ្នាក់ល្អ ឬលេខ១ ដើម្បីឱ្យអ្នកដទៃទទួលស្គាល់សមត្ថភាពរបស់ខ្ញុំ។	១	២	៣	៤	៥
២៨	ការកើនឡើងនៃពិន្ទុតាមមុខវិជ្ជា ជាអ្វីដែលខ្ញុំចង់បានបំផុត។	១	២	៣	៤	៥
២៩	អ្វីដែលខ្ញុំគិតគូរចង់បានជាងគេ គឺការទទួលបានចំណាត់ថ្នាក់ល្អ ឬលេខ១។	១	២	៣	៤	៥
៧. ការឱ្យតម្លៃលើមុខវិជ្ជា						
៣០	ការរៀនមុខវិជ្ជានីមួយៗ អាចប្រើប្រាស់ដើម្បីសម្រេចក្តីស្រមៃរបស់ខ្ញុំ នៅថ្ងៃអនាគត។	១	២	៣	៤	៥
៣១	ការរៀនមុខវិជ្ជានីមួយៗ ពិតជាមានប្រយោជន៍ដល់ខ្ញុំ នៅថ្ងៃអនាគត។	១	២	៣	៤	៥
៣២	ខ្ញុំពិតជាចាប់អារម្មណ៍ចង់រៀនមុខវិជ្ជានីមួយៗ។	១	២	៣	៤	៥
៣៣	ខ្ញុំចូលចិត្តមេរៀនតាមមុខវិជ្ជា ដែលខ្ញុំរៀនក្នុងសាលា។	១	២	៣	៤	៥
៨. ការជំរុញការគិតពិចារណាកម្រិតខ្ពស់						
៣៤	ខ្ញុំតែងគិតពីរឿងដែលខ្ញុំបានធ្វើកន្លងមក ដើម្បីធ្វើការកែលម្អវា។	១	២	៣	៤	៥
៣៥	ខ្ញុំតែងគិតពីអ្វីដែលខ្ញុំដឹង ថាតើគួរឱ្យទុកចិត្តបានទេ មុននឹងខ្ញុំសម្រេចចិត្តធ្វើរឿងអ្វីមួយ។	១	២	៣	៤	៥

៣៦	ខ្ញុំតែងគិតពីទង្វើខ្លួនឯងកន្លងមក ដើម្បីមើលថា តើខ្ញុំអាចមានភាពប្រសើរឡើងទេ។	១	២	៣	៤	៥
៩. ការជំរុញការគិតបែបសង្ស័យ						
៣៧	ពេលខ្លះ ខ្ញុំរកបានគំនិតសមហេតុផល ដែលផ្ទុយពីគំនិតរបស់ខ្ញុំកាលពីមុនទាំងស្រុង។	១	២	៣	៤	៥
៣៨	ខ្ញុំគិតថា វាចាំបាច់ក្នុងការយល់ពីគំនិតរបស់អ្នកដទៃ។	១	២	៣	៤	៥
៣៩	ខ្ញុំគិតថា វាចាំបាច់ក្នុងការបញ្ជាក់ពីភាពត្រឹមត្រូវ នូវអ្វីដែលខ្ញុំជ្រើសយក។	១	២	៣	៤	៥



ព្រះរាជាណាចក្រកម្ពុជា

ជាតិ សាសនា ព្រះមហាក្សត្រ

សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ

លេខ: ១៣៥/.....សកកព.កស

២០២៣

សូមជម្រាបជូន

លោកនាយក វិទ្យាល័យហ៊ុនសែន កំពង់ឆ្នាំង

កម្មវត្ថុ ៖ សំណើសុំអនុញ្ញាតឱ្យនិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំឈ្មោះ រស់ ជាធួ ចុះប្រមូលទិន្នន័យស្រាវជ្រាវ នៅវិទ្យាល័យហ៊ុនសែន កំពង់ឆ្នាំង។

តបតាមកម្មវត្ថុខាងលើ ខ្ញុំសូមជម្រាបជូន **លោកនាយក** ជ្រាបថា ៖ ដើម្បីលើកកម្ពស់គុណភាពអប់រំ និងផ្សារភ្ជាប់ទ្រឹស្តីនឹងការអនុវត្ត សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញតម្រូវឱ្យនិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំ មហាវិទ្យាល័យអប់រំនៃសាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ ចុះស្រាវជ្រាវ និងប្រមូលទិន្នន័យទាក់ទងនឹងប្រធានបទ “ការពិនិត្យមើលប្រសិទ្ធភាពឥរិយាបថនៃវិធីសាស្ត្របង្រៀន ទៅលើការជំរុញទឹកចិត្តក្នុងការរៀន និងការជំរុញទឹកចិត្តក្នុងការគិត(An examination of effective instructional behaviors is associated with learning motivations and critical thinking dispositions)” សម្រាប់សរសេរនិក្ខេបបទបំពេញលក្ខខណ្ឌបញ្ចប់ការសិក្សាថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំ ដែលនឹងប្រព្រឹត្តទៅចាប់ពីថ្ងៃទី០៦ ខែកុម្ភៈ ដល់ថ្ងៃទី០៦ ខែមីនា ឆ្នាំ២០២៣។

សេចក្តីដូចជម្រាបជូនខាងលើ សូម **លោកនាយក** ជ្រាបនិងអនុញ្ញាតតាមសំណើដោយក្តីអនុគ្រោះ។

សូម **លោកនាយក** ទទួលនូវការគោរពដ៏ស្មោះស្ម័គ្រពីខ្ញុំ

ថ្ងៃ ពុធ ២១ ខែ មីនា ឆ្នាំ ២០២៣ ឆ្នាំខាល ចត្វាស័ក ព.ស. ២៥៦៦

រាជធានីភ្នំពេញ ថ្ងៃទី ០៣ ខែកុម្ភៈ ឆ្នាំ២០២៣

ជ. សាកលវិទ្យាធិការ

សាកលវិទ្យាធិការរង



ប៉ាល់ ជេស



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ

លេខ: ១៣៦/.....សកកព.កស

/២០២៣

សូមជម្រាបជូន

លោកនាយក វិទ្យាល័យហ៊ុនសែន កំពង់ត្រឡាច

កម្មវត្ថុ ៖ សំណើសុំអនុញ្ញាតឱ្យនិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំឈ្មោះ រស់ ជាវី ចុះប្រមូលទិន្នន័យស្រាវជ្រាវ នៅ វិទ្យាល័យហ៊ុនសែន កំពង់ត្រឡាច។

តបតាមកម្មវត្ថុខាងលើ ខ្ញុំសូមជម្រាបជូន **លោកនាយក** ជ្រាបថា ៖ ដើម្បីលើកកម្ពស់គុណភាពអប់រំ និងផ្សារភ្ជាប់ទ្រឹស្តីនឹងការអនុវត្ត សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញតម្រូវឱ្យនិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំ មហាវិទ្យាល័យអប់រំនៃសាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ ចុះស្រាវជ្រាវ និងប្រមូលទិន្នន័យទាក់ទងនឹងប្រធានបទ “ការពិនិត្យមើលប្រសិទ្ធភាពឥរិយាបថនៃវិធីសាស្ត្របង្រៀន ទៅលើការជំរុញទឹកចិត្តក្នុងការរៀន និងការជំរុញទឹកចិត្ត ក្នុងការគិត(An examination of effective instructional behaviors is associated with learning motivations and critical thinking dispositions)” សម្រាប់សរសេរនិក្ខេបបទបំពេញលក្ខខណ្ឌបញ្ចប់ការសិក្សាថ្នាក់បរិញ្ញាបត្រជាន់ ខ្ពស់ផ្នែកអប់រំ ដែលនឹងប្រព្រឹត្តទៅចាប់ពីថ្ងៃទី០៦ ខែកុម្ភៈ ដល់ថ្ងៃទី០៦ ខែមីនា ឆ្នាំ២០២៣។

សេចក្តីដូចជម្រាបជូនខាងលើ សូម **លោកនាយក** ជ្រាបនិងអនុញ្ញាតតាមសំណើដោយក្តីអនុគ្រោះ។

សូម **លោកនាយក** ទទួលនូវការគោរពដ៏ស្មោះស្ម័គ្រពីខ្ញុំ

ថ្ងៃ ពុធ ៣១ កើត ខែ មឃ ឆ្នាំខាល ចត្វាស័ក ព.ស. ២៥៦៦
រាជធានីភ្នំពេញ ថ្ងៃទី ០៣ ខែកុម្ភៈ ឆ្នាំ២០២៣។

ជ. សាកលវិទ្យាមិការ
សាកលវិទ្យាមិការេ



ប៉ាល់ ជេស

- កាលប្បវត្តិ
- ឯកសារ: ក.ស

លេខទូរស័ព្ទទំនាក់ទំនង៖ ០៩៦ ៣៥៧ ២៥២៣

សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ

មហាវិថា្នកសិក្សាភូមិន្ទភ្នំពេញ

សំណើប្រមូលទិន្នន័យ

ឈ្មោះនិស្សិត:.....រស់ ជាតិ.....ភេទ:ប្រុស.....

ទូរសព្ទ: 0963572523 / 0978010060

អ៊ីម៉ែល: rosdaro1234@gmail.com

ចំណងជើងនិក្ខេបបទ: ការពិនិត្យមើលប្រសិទ្ធភាពវិធានការណ៍នៃវិធីសាស្ត្របង្រៀន ទៅលើការជំរុញទឹកចិត្តក្នុង
ការរៀន និងការជំរុញទឹកចិត្តក្នុងការគិត.....

An examination of effective instructional behaviours is associated with learning motivations and critical
thinking dispositions.....

សូមមេត្តាចេញលិខិតជូនទៅអ្នកពាក់ព័ន្ធ ដើម្បីស្នើសុំប្រមូលទិន្នន័យសម្រាប់និក្ខេបបទរបស់ខ្ញុំបាទ/នាងខ្ញុំ:
*សូមភ្ជាប់នូវកម្រងសំណួរស្រាវជ្រាវមកជាមួយសំណើសុំនេះ។

១. ជូន: លោក សុង ណារ៉ាត

តួនាទី: នាយក.....

ស្ថាប័ន: វិទ្យាល័យ សម្តេចតេជោ ហ៊ុន សែនមេសាទ្រៀ.....

អាសយដ្ឋាន: ខេត្តកំពង់ចាម

ប្រភេទនៃអ្នកឆ្លើយតប: (ឧ. គ្រូ សិស្ស និស្សិត) សិស្ស.....

២. ជូន: លោក នី ម៉ៅ

តួនាទី: នាយក.....

ស្ថាប័ន: នាយកវិទ្យាល័យ ហ៊ុន សែន កំពង់កំពង់ត្រឡាច.....

អាសយដ្ឋាន: ខេត្តកំពង់ឆ្នាំង

ប្រភេទនៃអ្នកឆ្លើយតប: (ឧ. គ្រូ សិស្ស និស្សិត) សិស្ស.....

តួនាទី: នាយក.....

ស្ថាប័ន: នាយកវិទ្យាល័យ ហ៊ុន សែន កំពង់លាវ

អាសយដ្ឋាន: ខេត្តព្រៃវែង

ប្រភេទនៃអ្នកឆ្លើយតប: (ឧ. គ្រូ សិស្ស និស្សិត) សិស្ស.....

រយៈពេល: ២៨ ថ្ងៃ (ចាប់ពីថ្ងៃទី០៦ ខែកុម្ភៈ ដល់ថ្ងៃទី០៦ ខែមីនាឆ្នាំ២០២៣).....

ឯកភាពតាមសំណើ

ថ្ងៃទី ២៩ ខែ មករា ឆ្នាំ ២០២៣

ហត្ថលេខាសាស្ត្រចារ្យដឹកនាំ



នាក់ ពិសិដ្ឋ

ថ្ងៃទី ២៨ ខែ មករា ឆ្នាំ ២០២៣

ហត្ថលេខាសាមីខ្លួន



រស់ ជាតិ



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

សាកលវិទ្យាល័យកម្ពុជាកំពង់ចាម

លេខ: ០៣៧/.....សកកព កស

២០២២

សូមជម្រាបជូន

លោកនាយក វិទ្យាល័យសម្តេចតេជោហ៊ុនសែន មេសាវៀរ

កម្មវត្ថុ ៖ សំណើសុំអនុញ្ញាតឱ្យនិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំឈ្មោះ រស់ ជាវី ចុះប្រមូលទិន្នន័យស្រាវជ្រាវ នៅ វិទ្យាល័យសម្តេចតេជោហ៊ុនសែន មេសាវៀរ។

តបតាមកម្មវត្ថុខាងលើ ខ្ញុំសូមជម្រាបជូន **លោកនាយក** ជ្រាបថា ៖ ដើម្បីលើកកម្ពស់គុណភាពអប់រំ និងផ្សារភ្ជាប់ទ្រឹស្តីនឹងការអនុវត្ត សាកលវិទ្យាល័យកម្ពុជាកំពង់ចាមត្រូវឱ្យនិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំ មហាវិទ្យាល័យអប់រំនៃសាកលវិទ្យាល័យកម្ពុជាកំពង់ចាម ចុះស្រាវជ្រាវ និងប្រមូលទិន្នន័យទាក់ទងនឹងប្រធានបទ “ការពិនិត្យមើលប្រសិទ្ធភាពឥរិយាបថនៃវិធីសាស្ត្របង្រៀន ទៅលើការជំរុញទឹកចិត្តក្នុងការរៀន និងការជំរុញទឹកចិត្ត ក្នុងការគិត(An examination of effective instructional behaviors is associated with learning motivations and critical thinking dispositions)” សម្រាប់សរសេរនិក្ខេបបទបំពេញលក្ខខណ្ឌបញ្ចប់ការសិក្សាថ្នាក់បរិញ្ញាបត្រជាន់ ខ្ពស់ផ្នែកអប់រំ ដែលនឹងប្រព្រឹត្តទៅចាប់ពីថ្ងៃទី០៦ ខែកុម្ភៈ ដល់ថ្ងៃទី០៦ ខែមីនា ឆ្នាំ២០២៣។

សេចក្តីដូចជម្រាបជូនខាងលើ សូម **លោកនាយក** ជ្រាបនិងអនុញ្ញាតតាមសំណើដោយក្តីអនុគ្រោះ។

សូម **លោកនាយក** ទទួលនូវការគោរពដ៏ស្មោះស្ម័គ្រពីខ្ញុំ

ថ្ងៃ ពុធ្រា ០៣ កើត ខែ មេសា ឆ្នាំខាល ចត្វាស័ក ព.ស. ២៥៦៦
រាជធានីភ្នំពេញ ថ្ងៃទី ០៣ ខែកុម្ភៈ ឆ្នាំ២០២៣



ជ. សាកលវិទ្យាមិការ
សាកលវិទ្យាមិការ

ប៉ាល់ ជេស

- កាលប្បវត្តិ
- ឯកសារ: ក.ស

លេខទូរសព្ទទំនាក់ទំនង: ០៩៦ ៣៥៧ ២៥២៣