

# DEVELOPMENT OF AN INSTRUCTIONAL LEADERSHIP MODEL TO ENHANCE INSTRUCTIONAL PRACTICES IN GENERAL EDUCATION COURSES AT AN INTERNATIONAL UNIVERSITY

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**Abstract:** This study focused on critical thinking in the context of general education. The aim of the study was the development of an instructional model. Qualitative and quantitative methods were employed to determine the expected instructional practices for enhancing university students' critical thinking skills. Data on the general education instructors' current and expected instructional practices were collected. Perceptions by students on these instructional practices were also collected. Participants included 23 instructors and 361 students teaching and enrolled in general education courses at Assumption University in the 2020 academic year. The data was analyzed using gap analysis with the Mean Difference (MD), and the Priority Needs Index Modified to determine the gap between the expected and current instructional practices of general education instructors as well as the gap between the current instructional practices and student's perceptions towards their instructor's current instructional practices. The paired samples t-Test revealed significant differences between the mean scores of current instructional practices and students' perceptions towards the instructors' instructional practices in general education courses. There was a significant difference in all means from the three constructs in the instructors' and students' surveys at the .05 level of significance. The independent samples t-Test also showed significant differences in three major constructs related to current instructional practices ( $\bar{X} = 3.74$ ,  $SD = .40$ ) and students' perceptions of the instructors' instructional practices in general education courses ( $\bar{X} = 3.13$ ,  $SD = 1.31$ ). A final model was developed from the significant findings and validated by experts.

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## **Introduction**

The emergence of the new era as a result of technology along with global interdependence requires higher education institutions to ensure students' needs for adaptation to the ever-changing world. When the students first join the university, not only do students have to adjust themselves to the new learning atmosphere, but instructors also need to find suitable pedagogical strategies to address students' needs responsively as well as support the use of their critical thinking skills for the next step of their educational path and the preparation of becoming responsible global citizens in the future. In higher education, the general education department plays a vital role in preparing students as these are typically the first courses in the students' university experience. However, only a few research studies discuss general education and its relation to critical thinking skills in student learning and how it is practiced in international universities in Thailand, where language can be a barrier in teaching and learning activities.

At most international universities where English is a communication medium, students are expected to adopt the critical thinking approach to their learning skills (Cottrell, 2005). This perspective is exposed by supportive empirical studies revealing the low performance of students' critical thinking following problem-solving, creative thinking, reading, and writing. However, some general education classes at Assumption University are conducted with a traditional teaching style due to many limitations, such as the large number of students, educational backgrounds of students, and teaching style preferences of each instructor. Normally, theories and academic content taught at international universities are subject to critical analysis in which students are forced to acquire their knowledge through critical reasoning. Two characteristics distinguish the instructional systems of higher education at international universities from other types of universities in Thailand. First, the instruction at international universities is conducted with English as a medium of communication in all classes as instructors are recruited from all over the world. When students first enter the university, they start with an intensive English language program as their first foundation course. Second, international universities' higher education system is different from public or private universities due to the difficulties of subjects. Therefore, a lecture-based subject may not be an effective instructional strategy here. Faculty members have to adjust according to students' needs, which may vary from class to class.

Trilling and Fadel (2009) mentioned that the foundation of 21<sup>st</sup>-century learning is the convergence of four forces that redefine the work and education of educators. To overcome and succeed in this information age, critical thinking skills are the fundamental skills that become evident from the convergence of the 21<sup>st</sup>-century skills platform. Thus, critical thinking is vital for educational reform for the development of all learners of all ages.

### **Research Objectives**

The primary goals of this study were (1) To determine the expected instructional practices for enhancing university students' critical thinking skills at an international university in Thailand; (2) To determine the current instructional practices for enhancing university students' critical thinking skills at an international university in Thailand; (3) To identify the gap between expected and current instructional practices for enhancing university students' critical thinking skills at an international university in Thailand; and (4) To develop an instructional leadership model for enhancing instructional practices in General Education courses at an international university in Thailand.

### **Literature Review**

#### *21<sup>st</sup> Century Skills*

As stated by Trilling and Fadel (2009), the foundation of the 21<sup>st</sup>-century learning platform is the convergence of four forces that redefine work and education. First, exposure to a knowledge-based economy plays an important role in the concept of competency in working and skill patterns in this era. Second, digital lifestyles have changed the dynamics of family, school, and social relations in all aspects and levels of societies and the flow of information. Third, learners and workers cannot depend solely on memorization skills because memorization may not be the only way to gain knowledge, especially from online sources where unlimited sources of information can be found everywhere. Nowadays, the way people deal with acquiring information from online sources requires accessing, searching, analyzing, organizing, constructing, and evaluating for better use of information in this era. Fourth, research studies support students' learning through social engagement in academic and extracurricular activities (Resnick & Hall, 1998; Trilling & Fadel, 2009; Kettler, 2012). Therefore, critical thinking and problem-solving skills are fundamental for better learning engagement in the 21<sup>st</sup> century.

#### *Marzano's Model for Effective Instructional Leadership Strategies*

Marzano's Model for Effective Instructional Leadership Strategies consists of nine aligned domains for instructional practices with practical guidelines

clearly stated in each strategy. They include: (1) Identifying similarities and differences, (2) Summarizing and note-taking, (3) Reinforcing effort and providing recognition, (4) Homework and practice, (5) Representing knowledge, (6) Learning groups, (7) Setting objectives and providing feedback, (8) Generating and testing hypotheses, and (9) Cues, questions, and advance organizers (Marzano et al., 2001). Based on Hogan's study on "Aligning Teacher Evaluation and Professional Development to Support Performance on the Marzano Framework for Teaching" (2017), Marzano's nine effective instructional strategies and his teacher and leadership evaluation models were employed as the main frameworks for this research.

### *Marzano's Teacher and Leadership Evaluation Models*

Marzano also indicated that the framework and instructional strategies enhance both teacher and student capacities through a value-added evaluation system shared among all educational parties (Marzano, 2011; Kahney, 2014). According to Hogan (2017), Marzano has conducted comprehensive research studies to develop this framework as teaching is considered both an art and science in educational reforms. Therefore, this evaluation model is not solely associated with professional development but also provides an extensive, thorough identification of a complete set of practices that enhance students' performance (Marzano, 2011; Donahue, 2016).

### *Hattie's Visible Learning*

With the information age, there has been a shift in educational patterns and systems worldwide to adjust all educational stakeholders with the best direction concerning educational reform. Hattie (2009) pointed out that the most important effect in the schooling system is the teacher's expertise, which can significantly impact student learning. Therefore, teachers must monitor and continuously improve themselves through constant professional development. Learners are different; in most cases, teachers need to sustainably strengthen and develop learning strategies based on each specific learning domain and content matters, as well as conduct students with the conceptual understanding for a versatile application of knowledge utilization. Teaching is an art that requires intentional interventions to fortify the cognitive change in students' learning patterns (Hattie, 2009). In this information age, students perceive information and knowledge freely without any limitations; the question remains, what are the roles of teachers in this era? In the present time, there is a shift in knowledge acquisition from being taught to learning as needed. Teachers' feedback is still considered an influential source of knowledge acquisition. In the meantime, providing feedback is also used to provide a formative evaluation to teachers.

### *The Daggett System for Effective Instruction*

Instructional leadership focuses on the effectiveness of instructions and the effects on students' achievement and course development. Therefore, the focus of the course is always student learning and the desired learning outcomes. Daggett (2014) maintains that instructional leadership can also be a variant of support to instructors such as district and school administrators, deans, department chairpersons, teaching experts, counselors, mentor teachers, teaching coaches, and team members. Consequently, instructional leaders must be knowledgeable about teaching and learning theories, curriculum, and effective instruction (McEwan, 2003). In addition, communication skills are also essential in building trust between instructors and learners in any classroom setting for a pleasant learning atmosphere.

### *Instructional Practices*

Instructional leaders with a strong sense of purpose in all classroom matters can work more effectively with students. McEwan (2003) stated that the more knowledgeable you are about your students and your classrooms, the more effective instructional leader you can be. For example, in most history and religious studies classes, students should be encouraged to engage in an interactive instructional pedagogy that might feasibly be more constructive and practical for dealing with real-life problems and actual circumstances outside the classroom. Hence, teachers and instructors should encourage students to analyze, interpret, criticize, and construct different types of information and knowledge through feasible teaching and learning activities.

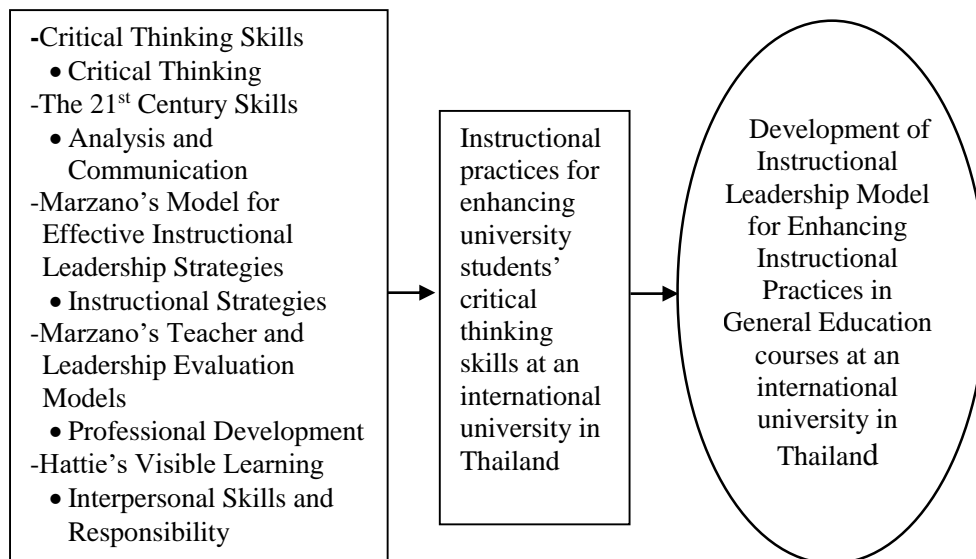
### *Critical Thinking*

Critical thinking is both a philosophy of learning and an educational outcome. It has its roots in the classical period of Greek civilization and the Socratic tradition of a famous Greek sophist, Socrates (Paul, 1990; Kettler, 2012). The Socratic method of learning reveals how students can rationally justify their answers through a process of critical and rational thinking to support their claims. Therefore, the Socratic learning method can be considered a reflection of the teachers' and students' critical thinking abilities. Moreover, this learning method also cultivates critical reasoning and the ability to respond without hesitation as a skill of reflective and critical thinking (Kettler, 2012). Some teachers say that students' critical thinking skills are easier said than done as such skills are individual traits that appear individually and cannot be injected easily as critical thinking requires a long learning process. Instead of focusing on the importance of cognitive skills in learning, the attention of 21<sup>st</sup>-century education has emphasized thinking skills, including critical thinking abilities.

### *General Education*

General education is an essential component of higher education in most universities around the world. The development of general education has directly resulted from the individual's demands on social expectations and a reflection of the university's role in knowledge transfer from teachers to students and from one generation to another (Liao, 2012). General education requirements in higher education institutions have been depicted as a foundation fulfillment of all undergraduate degrees. The specific requirements of general education may vary among universities; however, there are common characteristics that all universities need to follow. The 21<sup>st</sup> Century skills platform is an appropriate teaching guideline for general education courses as the life skills are compatible with all courses available in most universities. These courses include native and world languages, art, mathematics, economics, science, geography, history, and politics (Panich, 2012). These subjects are the foundations of the university itself to pave the student's future and encourage students to understand other professions and make connections among different disciplines simultaneously because all faculties and programs have to study together.

### **Conceptual Framework of the Study**



**Figure 1. Conceptual Framework**

### **Research Methodology**

This research used both qualitative and quantitative methods to achieve the research objectives. The first objective was *to determine the expected*

*instructional practices for enhancing university students' critical thinking skills at an international university in Thailand.* A content analysis was utilized for this objective, and eight constructs based on the nine themes were obtained. These constructs were also supported by literature, prior research studies, OHEC's Thailand Qualifications Framework for Higher Education in Thailand (TQF), and the General Education Curriculum mapping (Office of Higher Education Commission, 2006, 2019). The eight constructs are as follows: (1) Opinions about critical thinking, (2) critical thinking abilities, (3) critical thinking dispositions, (4) teaching strategies, (5) learning strategies, (6) professional development, (7) interpersonal skills and responsibility, and (8) analytical and communication skills. Five experts validated these eight constructs, and a questionnaire was then constructed.

Two steps were carried out for the second objective to *determine the current instructional practices for enhancing university students' critical thinking skills at an international university in Thailand.* The researcher used two research instruments to answer research objective two by determining the current instructional practices for enhancing university students' critical thinking skills in the General Education Department at Assumption University. The first instrument was the questionnaire that surveyed instructors' instructional strategies, and the participants were 23 general education instructors from the department of general education at Assumption University.

In the instructors' survey, the first two parts were the details of demographic and employment information, which were discussed with frequencies and percentage values. In the third part of the survey, the effectiveness of instructors' instructional strategies was discussed and analyzed in terms of frequencies, mean, and standard deviation. For the interpretation of the mean score, the researcher adopted the interpreting procedure outlined by Best (1981) and Degang (2010), as shown in Table 1 (Kitjaroonchai & Kitjaroonchai, 2012).

Table 1. *Interpretation of Mean Score*

Scale	Mean Range	Score Range	Meaning
5	Strongly Agree	4.50-5.00	Very High
4	Agree	3.50-4.49	High
3	Undecided	2.50-3.49	Average
2	Disagree	1.50-2.49	Low
1	Strongly Disagree	1.00-1.49	Very Low

Altogether, there were 59 questions broken down into four parts: Demographic Information, Employment Information, the Effectiveness of Instructors' Instructional Strategies, and Other Recommendations. The first two parts of the survey were analyzed with frequencies and percentage values. The third part of the survey was about the effectiveness of instructors' instructional strategies and utilized a Likert-type five-point scale of 5=Strongly Agree; 4=Agree; 3=Undecided; 2=Disagree; and 1=Strongly Disagree. A questionnaire consisting of both expected and current instructional practices was developed to obtain data for Objective Three. The five constructs were: Opinions about Critical Thinking, Teaching Strategies; Professional Development; Interpersonal Skills and Responsibility; and Analytical and Communication Skills.

The second instrument surveyed students' opinions on the effectiveness of instructional strategies of general education courses. Based on the enrolment record from the Registrar Office of Assumption University, 22 general education courses opened in the first semester of the 2020 academic year with a total number of 5,280 enrolled students. According to the sampling sample size determination by Krejcie and Morgan (1970), the required number of participants was 361 students. For the student survey, Google Forms was used. There were two parts to the survey; demographic information and questions about the effectiveness of instructional practices: Demographic Information and the Effectiveness of Instructional Strategies. The Effectiveness of Instructional Strategies consisted of five main constructs: Critical thinking Abilities, Dispositions of Critical Thinking, Learning Strategies, Interpersonal Skills and Responsibility, and Analytical and Communication Skills. To collect the information for the gap analysis in Objective Three, the researcher prepared the research instrument with the Likert five-point scale measurement with the statements that were obtained from the content analysis results of Objective One.

For the third objective, statistical analysis was used to identify the gap between expected and current instructional practices for enhancing university students' critical thinking skills at an international university in Thailand. Additionally, interviews were carried out to obtain information and data on some of the findings from the instructor's survey. Paired samples t-Test, Mean Differences analysis, and the analysis of the Modified Priority Need Index (PNI<sub>modified</sub>) were used to determine the gap between the expected and current instructional practices of general education instructors.

The fourth objective is to *develop an instructional leadership model for enhancing instructional practices in General Education courses at an*



*international university in Thailand*; an instructional leadership model for enhancing instructional practices in General Education courses at an international university in Thailand was developed based on the findings from the content analysis, instructor's survey, student's survey, and interviews.

## **Findings**

### *Instructor Survey*

The findings revealed that most instructors were concerned about professional development and had good intentions in developing instructional practices for enhancing students' critical thinking abilities for the expected instructional practices. Most instructors strongly agreed that their teaching profession is a life-long learning development ( $\bar{X} = 4.96$ ). The general education instructors demonstrated their intention and effort in working closely with the students as the survey reveals that they cherish good communication skills both among themselves and with the students. The survey also confirmed the importance of collaboration in instructional practices of the instructors toward responsible tasks in all educational settings at the university. Instructors also agreed on the essence of critical thinking in general education learning that can develop and improve students' thinking mechanisms and interests in given tasks and circumstances.

### *Students' Survey*

For the student survey, the total number of respondents was 361 students. Findings from the student survey implied a similar message in the agreement of analytical and communication skills as one of the key factors in assisting students in learning more effectively with happiness ( $\bar{X} = 3.30$ ). The data also reflected that there was room for improvements in learning strategies through the assistance of the instructors and their appropriate teaching strategies as the result of the survey also reveals that the instructors need to spend more time with the students and encourage more group work in the classroom ( $\bar{X} = 3.11$ ). To elaborate on this point, most students agreed that collaboration creates analytical and communication skills, and group discussions can create analytical and communication skills. ( $\bar{X} = 3.27$ ). Moreover, the students enjoyed working together as a group as they could exchange their knowledge and help each other encountering difficult tasks and lessons ( $\bar{X} = 3.19$ ).

Table 2 compares the expected and current instructional practices of all five constructs. The Paired Samples t-Test was employed to analyze the differences in mean scores between the expected and current instructional practices. There was a significant difference between the mean of expected instructional practices and the mean of current instructional practices

perceived by the general education instructors. At a .05 level of significance, there was a significant difference in the mean scores of all five constructs shown in the instructor's survey that the expected instructional practices were higher than the current ones. The Paired Samples t-Test revealed significant differences in all constructs that there was a significant difference in the mean scores for expected instructional practices ( $\bar{X} = 4.58$ ,  $SD = .63$ ) and current instructional practices ( $\bar{X} = 3.72$ ,  $SD = .67$ ).

Table 2. *The Comparison between Expected and Current Instructional Practices*

Constructs	Expected		Current		t-test	Sig.
	Mean	S.D.	Mean	S.D.		
1. Opinions about Critical Thinking	4.56	.63	3.73	.67	15.74	.000
2. Teaching Strategies	4.43	.55	3.66	.77	14.77	.000
3. Professional Development	4.68	.47	4.01	.56	14.09	.000
4. Interpersonal Skills and Responsibility	4.69	.61	3.75	.56	20.44	.000
5. Analytical and Communication Skills	4.53	.67	3.81	.60	16.72	.000
Total	4.58	.59	3.72	.63	13.48	.000

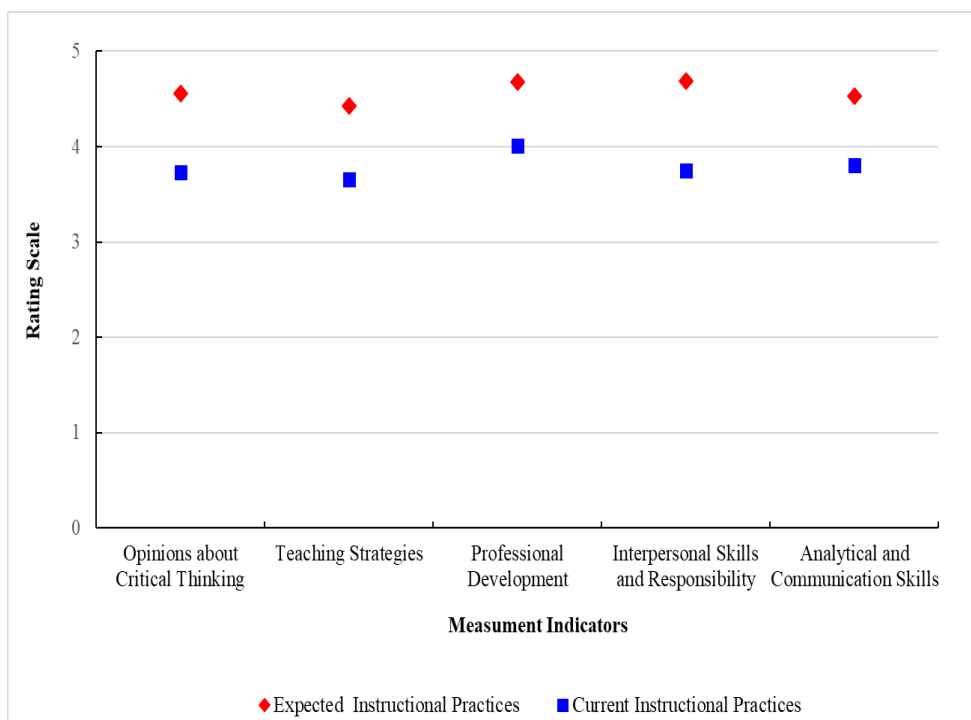
Table 3 shows the results of the mean differences (MD) results, which indicated significant differences between the expected and current instructional practices of the general education instructors at a  $p$ -value  $<0.05$  in all constructs. Interpersonal Skills and Responsibility construct was ranked as the highest level of mean differences ( $MD = 0.94$ ). The results were followed by the constructs of *Opinions about Critical Thinking* ( $MD = 0.83$ ), *Instructional Strategies* ( $MD = 0.77$ ), and *Analytical and Communication Skills* ( $MD = 0.72$ ). The lowest mean difference level was the Professional Development construct ( $MD = 0.67$ ). This can be interpreted that there were discrepancies between the expected and current instructional practices identifying the needs and potential for enhancing the instructional practices of the general education instructors at Assumption University.

Table 3. *The Mean, MD, t-statistic, p-value, and Ranking of the Expected and Current Instructional Practices (n=23)*

Constructs	Mean			t-statistic	p-value	Ranking
	Expected	Current	MD			
1. Opinions about Critical Thinking	4.56	3.73	0.83	15.74	0.000*	2
2. Teaching Strategies	4.43	3.66	0.77	14.77	0.000*	3
3. Professional Development	4.68	4.01	0.67	14.09	0.000*	5
4. Interpersonal Skills and Responsibility	4.69	3.75	0.94	20.44	0.000*	1
5. Analytical and Communication Skills	4.53	3.81	0.72	16.72	0.000*	4
Total	4.58	3.72	0.86	13.48	0.000*	-

\*  $p < 0.05$ .

As shown in Figure 1, all five constructs from the expected instructional practices perceived by the general education instructors were rated relatively high. Four constructs were Interpersonal Skills and Responsibility, Professional Development, Opinions about Critical Thinking, and Analytical and Communication Skills, indicating very high levels of the mean score ranging from 4.69, 4.68, 4.56, and 4.53, respectively. The lowest mean score from the expected instructional practices was the construct of Teaching Strategies, with a mean score of 4.43, which was indicated as a high level of the mean score.



**Figure 1. *Expected and Current Instructional Practices of General Education Instructors***

*Note.* The interpreting procedure as outlined by Best (1981) and Degang (2010) is as follows: 5=Very High, 4.50-5.00; 4=High, 3.50-4.49; 3=Average, 2.50-3.49; 2=Disagree, 1.50-2.49; 1=Strongly Disagree, 1.00-1.49 (Kitjaroonchai & Kitjaroonchai, 2012).

To complete third research objective, the researcher utilized an additional statistical technique to analyze the discrepancies between the expected and current instructional practices of the general education instructors using the Modified Priority Needs Index ( $PNI_{modified}$ ). From Table 4, the Modified Priority Needs Index had values ranging from 0.17-0.32 and they were ranked in descending order as follows: No. 1-Teaching Strategies: ( $I = 4.43$ ,  $D = 3.36$ ,  $PNI_{modified} = 0.32$ ), No. 2-Interpersonal Skills and Responsibility: ( $I = 4.65$ ,  $D = 3.75$ ,  $PNI_{modified} = 0.24$ ), No. 3-Opinions about Critical Thinking: ( $I = 4.56$ ,  $D = 3.75$ ,  $PNI_{modified} = 0.22$ ), No. 4: Communication and Analytical Skills: ( $I = 4.53$ ,  $D = 3.81$ ,  $PNI_{modified} = 0.19$ ), No. 5: Professional Development: ( $I = 4.68$ ,  $D = 4.01$ ,  $PNI_{modified} = 0.17$ ).

Table 4. *Analysis of the Modified Priority Needs Index (PNI<sub>modified</sub>)*

Constructs	Mean Score of Expected Instructional Practices (I)	Mean Score of Current Instructional Practice (D)	PNI <sub>modified</sub>	Rank
Opinions about Critical Thinking	4.56	3.75	0.22	3
Teaching Strategies	4.43	3.36	0.32	1
Professional Development	4.68	4.01	0.17	5
Interpersonal Skills and Responsibility	4.65	3.75	0.24	2
Communication and Analytical Skills	4.53	3.81	0.19	4

Interviews were conducted with five selected instructors. The criteria for selecting the interviewees was that they should score higher than 4.00 (out of 5.00) from student evaluations. The instructors were from four different disciplinary backgrounds; art, social sciences, political science, and science. Two instructors were doctorate holders, and three were master's degree holders. The interviews also disclosed some information on instructors' obstacles in conducting effective classes with enhancing critical thinking instructional practices. Three instructors commented that the diversity in class sometimes led to barriers in the classroom socially and culturally. Some students found it difficult to express their ideas freely, while some just expressed their points of view too freely. When it came to group work to allow the students to practice and express their critical analyses, the class might not be enough, and the students were too busy to get together after class. The student's projects were problem-based and time-consuming. Therefore, some instructors tried to avoid such assignments due to time management and complexity difficulties. Two more instructors commented on the registration system that too many courses opened simultaneously, and sometimes the required courses were not open enough to accommodate all students.

The findings from all data collection methods reflected that all instructors strongly agreed on the application of critical thinking skills in all classroom activities and the importance of developing critical thinking skills of their students through appropriate and adjustable instructional practices. The instructors were well-concerned for their students and stated that the good

relationship between teachers and students eventually cultivated pleasant learning atmospheres despite the difficulties of the classroom settings and students' nature. Some factors were significantly deemed useful for nourishing the school, the university, and the university as a whole.

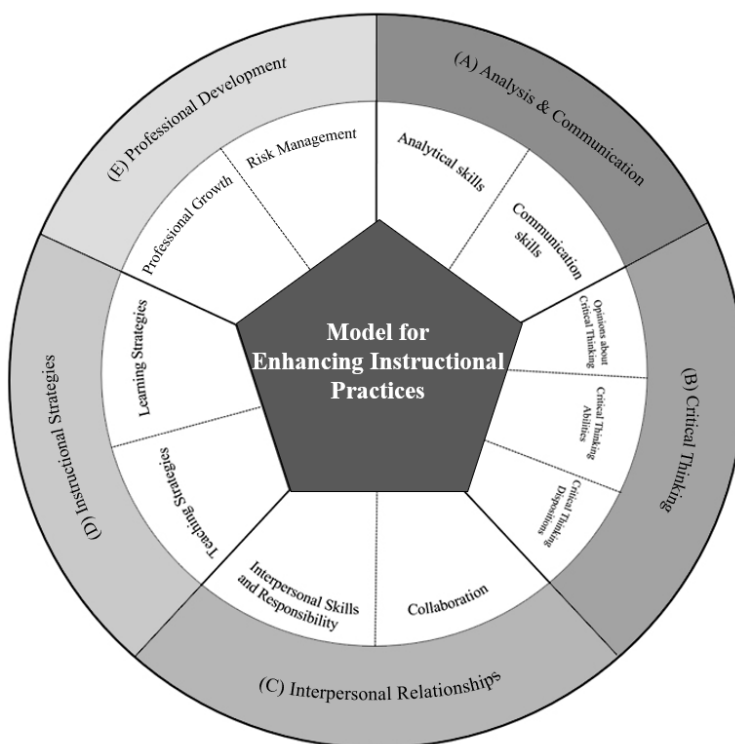
For the fourth objective of this study, the researcher proposed to develop an instructional leadership model for enhancing instructional practices in General Education courses at an international university in Thailand. The proposed model is composed of the components of a successful model as identified as a part of this research study through the findings from Objective One to Objective Three. All the constructs were ranked from average to very high, and none of the items from each construct were rated below 2.50. This score reflects the realization of critical thinking skills in higher education. The components include precise objectives for identifying and exploring instructional practices for enhancing critical thinking skills and the general education instructors and enrolling students who participated and were involved in its development. First, the components were identified from the review of the literature and the content analysis. From there, there were two sets of constructs employed in the instructor's and student's surveys with the support of the literature review. Then, the components were supported by the findings from the interviews.

The proposed model for engaging critical thinking skills in general education courses at higher education figured in this objective underlies the research findings and addresses the barriers to executing critical thinking instructional practices in general education courses. The survey observed that there were some difficulties in conducting the general education classes and cultivating a good relationship between instructors and students in higher education. Therefore, this proposed model was developed not only from the literature reviews, the incorporation of thoughts and recommendations of the research participants, including general education instructors and students, concepts, and theories identified in the literature review. From the previous research objective studies, the best motivation of the instructors are their students. The five constructs from the instructor's survey serve as guidelines for them to realize the importance of instructional leadership and a better understanding of the instructional practices and possible learning outcomes of the students; *Opinions about Critical Thinking, Instructional Strategies, Professional Development, Interpersonal Skills and Responsibility, and Analytical and Communication Skills*. In the meantime, the five constructs from the student's survey provide some guidelines for the researcher and other general education instructors to understand and be aware of the enhancement of critical thinking abilities, student learning, and the Desired Outcomes of Education (DOE) for

the benefits of the students as a whole; *Critical Thinking Abilities, Dispositions of Critical Thinking, Learning Strategies, Interpersonal Skills and Responsibility, and Analytical and Communication Skills.*

There are five major areas of components under the proposed model, as indicated in the outer ring of Figure 2. The five major areas are indicated alphabetically in the outer ring as (A) Analysis and Communication, (B) Critical Thinking, (C) Interpersonal Relationships, (D) Instructional Strategies, and (E) Professional Development. First, analysis and communication refer to analytical and communication skills. Second, critical thinking refers to the opinions about critical thinking, critical thinking abilities, and critical thinking dispositions relating to general education instructors and students at an international university in Thailand. Third, interpersonal relationships refer to interpersonal skills and responsibility as well as collaboration between the instructors and students and among them. Fourth, the instructional strategies comprise instructors' teaching strategies and students' learning strategies. Fifth, professional development refers to the risk management and the professional growth of the instructors for the benefit of students' learning and knowledge.

Critical thinking is a pentagon of learning where instructional strategy development is inextricably intertwined with the involvement of all educational parties. All major constructs indicated in this research study and their elements are intertwined and revolve of equal importance. The five-sided pentagon in equal length represents the significance of all constructs towards the contribution of enhancing instructional practices in general education courses. Critical thinking skills can be one of the conceptual foundations in students' learning as the role of its application can be versatile and applicable to accomplishing a given task. In his research study on critical thinking skills, Kettler (2012) stated that critical thinking could also be considered an outcome of learning that enhances the cognitive and practical learning efficacy. According to the Future of Jobs Report from the World Economic Forum (2020), through dramatic changes in the world, critical thinking and analysis are listed as the desirable sets of skills that all workers are required to re-skill themselves for the 2025 workplace. Good thinkers must make good judgments based on the interpretation of critical thinking, critical analysis, and evaluation of acquired information from reasonable evidence. Therefore, with strong critical thinking skills, students can learn more efficiently and make a sound judgment of perceived information anytime and anywhere.



**Figure 2. Model for Enhancing Instructional Practices**

### Discussion

Critical thinking as an effective instructional instrument requires twofold parties, instructors and students, with equal effort in all classroom and extracurricular activities. In most educational institutions, the students are free to select various elective courses to fulfill the curriculum requirement of their undergraduate degrees. Therefore, the relationship between the instructors and students can be cultivated, and the instructor's application of critical thinking can be facilitated continuously until the day the students walk out of the university. Trilling and Fadel (2009) noted that critical thinking is a lifelong acquisition of knowledge, while Metcalfe and Cohen (2007, 2010) added that the role of critical thinking acts as an equilibrium of learning possible with the cognitive development of the human mind. Consequently, higher levels of crucial thinking could enhance students' learning, academic achievement, and future endeavors. All in all, student achievement eventually intertwines and revolves in the educational cycle and latterly reflects the better reputation of the university academically as a whole.



The researcher strongly believes in the positivity of general education instructors at Assumption University in enhancing their instructional practices to increase students' critical thinking. From the research findings, the instructors strongly agree on the significance of professional development and stress the importance of interpersonal relationships and collaboration as the two prominent areas that can be employed continuously and pleasantly anytime and anywhere in educational settings. From the interviews, there are many opportunities for all instructors to enhance students' critical thinking through professional and instructional development. To provide an effective model for enhancing instructional practices in the department of general education, three more constructs also play important roles in achieving the goal of this study. Analytical and communication skills are also important for better understanding any given situation and circumstance. The realization of critical thinking abilities can be promoted to all levels of education and all educational parties and stakeholders. Instructional strategies, teaching, and learning should be equally important on all educational platforms.

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