DEVELOPING THE CONSTRUCT OF UNIVERSITY CITIZENSHIP BEHAVIOR AND TESTING THE CAUSAL MODEL: A CROSS-CULTURAL STUDY OF THE UNDERGRADUATE STUDENTS IN THAILAND AND THE U.S.

A DISSERTATION

BY

PANUPONG U-THAIWAT

Presented in Partial Fulfillment of the Requirements for the

Doctor of Philosophy Degree in Applied Behavioral Science Research,

at Srinakharinwirot University, Bangkok.

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AN ABSTRACT

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This study focused on the positive behavior of students which is referred to as university citizenship behavior (UCB). In prior research, UCB was drawn from organizational citizenship behavior (OCB). This was accomplished by replacing the context in the questionnaires with a focus on organizations to one that applies to academics. Since this variable was originally constructed for the organizational context, applying it to the university context required some further alterations.

Due to the limitations of prior research into UCB, this study developed an exploratory sequential mixed-methods design and was comprised of two phases. A qualitative method was used in phase one to develop the dimensions, definition, and to create the items for thescale of UCB. The in-depth interview technique was conducted to survey experts in order to confirm whether UCB could be reasonably developed from OCB. This was followed by interviews with undergraduate students from both Thailand and the U.S. in order to elicit which behavioral indicators reflected UCB. All indicators were subsequently analyzed and integrated as the dimensions, definition, and the items for developing the scale for UCB. After the scale was developed, the quantitative method was used to test for validity and reliability.The confirmatory factor analysis (CFA) was also used to confirm the dimensions of UCB and presented in phase two. The results showed UCB as having seven dimensions, and the definition was clarified. The developed scale for UCB was valid and reliable for measuring UCB among undergraduate students in Thailand and the U.S.

Phase two was comprised of two objectives. The first purpose was to develop a causal model of UCB among Thai and U.S. undergraduate students. Social exchange theory and the concept of OCB were applied to develop the causal model of UCB. The second purpose of this phase was to compare the differences of the causal model of UCB

between Thai and U.S. undergraduate student groups. The participants were undergraduate education majors in Thailand and the U.S. The results from phase two provided an overall model of UCB fit to the data by achieving an acceptable standard of goodness fit indices(χ^2= 714.55, **df**= 169, χ^2/**df** = 4.23, RMSEA = 0.072, SRMR = 0.035, CFI = 0.98, NNFI = 0.98).In testing invariance between the groups, the form invariance and the factor loading measurement invariance appeared to be invariant across the Thai and U.S. groups, whereas they were substantially different in the structural invariance test. There were four pathways that showed as statistically significant between the groups and significant in each group. Finally, in the latent variable mean difference test, there were three variables indicating the differences in means between the Thai and U.S groups.

The results from phase one expanded the understanding of UCB and clarified gaps of knowledge. It confirmed that UCB could be developed from OCB with some alterations and could explain UCB more in-depth with seven dimensions. The developed scale for UCB was also valid and reliable. The results from phase two supported that the model of UCB integrated from social exchange theory and the concept of OCB in the organizational context was effective. This also expanded the knowledge that organizational construct and variables could be applied in the academic context. In addition, the results also illustrated the differences of pathways and latent means across the groups of Thai and U.S. students. This confirmed that cultural differences played a vital role in affecting students in different cultures and resulted in different outcomes.

Some of the most significant variables affecting UCB are as follows: ethical climate, subjective well-being (SWB), and university engagement. Thus, universities and educators in Thailand and the U.S. should be concerned with these effective variables first when fostering UCB in students. More recommendations were also discussed.

The dissertation titled

"Developing the Construct of University Citizenship Behavior and Testing the Causal Model: A Cross-Cultural Study of the Undergraduate Students in Thailand and the U.S."

by

Panupong U-thaiwat

has been approved by the Graduate School as partial fulfillment of the requirements for the Doctor of Philosophy degree in Applied Behavioral Science Research of Srinakharinwirot University

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Panupong U-thaiwat

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CHAPTER 1
INTRODUCTION

Background

Academic institutions are the place where students' minds and behaviors are cultivated. They are the future human resource capital needed by organizations, businesses, and society. They learn a broader perspective that helps prepare them to become productive members of society, and helps prepare them for their future roles (Henslin, 2008). Hence, focusing on the positive behaviors of students at academic institutions is beneficial.

This research focused on the positive behavior of students referred to as university citizenship behavior (UCB) which was drawn from the concept of organizational citizenship behavior (OCB).For students in higher education, attainment and success in academic performance, aligned with creating positive values, ethics, and behavior are important. This type of behavior will form a foundation and framework of supporting positive habits in these students, will help students' careers, and will benefit the organizations where they will ultimately work (Khalid et al., 2013). A lack of desirable behaviors in the university setting may lead to and amplify social problems in the future because these students may go on to play significant roles at organizations and in society. Hence, during their time at university, embedding good behaviors such as UCB is important. Therefore, an effective variable that could help increase students' positive behaviors should be explored and studied.

Prior research focusing on UCB adapted OCB to be employed in the academic setting by retaining its original definition. This was accomplished by replacing the context in the questionnaires from focusing on organizations to one that applied to the academic institutions (Gore et al., 2014; Khalid et al., 2013). Organ (1988) defined OCB as a positive behavior that is an individual behavior which is discretionary and not directly or explicitly recognized by a formal reward. In other words, OCB is a behavior that encourages employees to serve their organization in positive ways without getting a bonus or extra monetary incentive. In parallel, UCB might be defined as a student behavior which is discretionary, not directly or explicitly recognized by earning extra credits or extra scores

from a university, and might therefore share the same concept as OCB. However, since this variable was originally constructed for an organizational context, applying it to a university context may require some alterations. Indeed, the roles of being an employee and of being a student vary in that employees work to get a salary while students typically study to obtain knowledge and forward their careers. In addition, the activities occurring in each context and duties of being a student and being an employee are different as well.

Due to the limitations of prior research into UCB, the purpose of this study was to explore and fill in gaps that could be beneficial to examine. The dimensions, definition, and a scale of UCB were aimed to be developed. Additionally, researchers' explorations into UCB and its antecedents are currently limited. Understanding the relationship between these variables may be useful for universities in creating policies and curricula. Thus, the causal model of UCB was investigated in this study. Moreover, this study also intended to compare the differences of the causal modelof UCB between groups of students from Thailand and the U.S.

To fill the gaps mentioned above and gain knowledge about UCB, the exploratory sequential mixed-methods design of Creswell and Clark (2007) was adapted. This research was comprised of two phases. The first phase started with a qualitative method to develop the dimensions, definition, and elicit the behavioral indicators of UCB for creating the developed scale for UCB. The first phase also used the quantitative method to test the validity and reliability of the developed scale. In the second phase, the causal model of UCB was investigated. Structural equation modeling (SEM) was conducted to test the model among Thai and U.S. students. Finally, the invariance test was conducted between both groups, and comparative cross-cultural perspective was used to describe the differences.

Lent, Brown, and Hackett (1994) suggested through the lens of social cognitive theory of career that career development and academic development are involved because during students' academic lives, the skills and interests students develop are translatable to the context of career selection. This idea illustrates that an organizational variable can possibly be adapted to, and used in the academic context.Hence, the concept of social exchange theory of Blau (1964) was employed under the premise that students perhaps return their positive behaviors in the form of UCB when they are recognized in a positive way

by their universities and significant agents such as teachers and peers. This concept was integrated with the four major categories of OCB's antecedents presented by Organ, Podsakoff, and Mackenzie (2006) and Podsakoff, MacKenzie, Paine, and Bachrach (2000) to create the research framework in the second phase. The four categories included job attitude, task characteristic, leader characteristic, and organizational characteristic. These yielded to the eight final antecedent variables in the model of UCB.

Since this study adapted variables from organizational context, this part presents them in parallel to the four major categories in organizational context for a better understanding. The first of OCB's antecedent categories, job attitude, was seen as a parallel to student attitude towards their universities in UCB. This antecedent category of UCB included subjective well-being (SWB), university engagement, and student-university fit (SU fit). The second antecedent category of OCB, task characteristic, was shaped into teaching characteristic in the university context. In the organizational context, employees are responsible for achieving the tasks assigned by their supervisors or organizations. In the university context, students are responsible for achieving their tasks assigned by their teachers as well. Thus, the teaching characteristic can be viewed as an effective teaching procedure. Learner-centered teachingwas selected to represent this antecedent category in the university context. The third antecedent category of OCB was leader characteristic. This category was transformed into the university context as teacher characteristic, which can be assessed through teacher support. This was done under the premise that the role of the teachers resembles the role of the supervisors in distributing knowledge and assessing performance. The final category of the antecedents of OCB was organizational characteristic. This category was represented in the university context through university support, peer support, and ethical climate.

This research, in the field of behavioral science, aimed to explore human behaviors by integrating knowledge from various academic fields such as psychology, sociology, and anthropology (Puengposop, 2013; Bhanthumnavin, 2002). The eight antecedent variables in the four antecedent categories mentioned earlier were further described in a perspective of behavioral science, and re-categorized as psychological and environment variables. The psychological variables included SWB, university engagement, and SU fit. The environment

variables consisted of university support, teacher support, peer support, learner-centered teaching, and ethical climate.

In considering the psychological variables, SWB is the evaluation of the students' lives as a whole. This includes how they view their lives, universities, and their moods in general (Diener & Chan, 2011; Diener & Ryan, 2009; Diener, Oishi,& Lucas, 2003; Diener, 2000). If students possess this variable they are more likely to exhibit positive behaviors and actions which contribute to the betterment of their universities. Second, university engagement is a positive state of fulfillment that leads students to regard their universities as a vital part of their life. It increases students' feelings of loyalty towards their universities (Finn, 1989; Voelkl, 1997; Newmann, 1992)and possibly influences UCB. Finally, SU fit is another positive variable which was drawn from Edwards and Shipp (2007) and Kristof-Brown, Zimmerman, and Johnson (2005). This perception is the congruence of students and universities. If students feel that they suit their universities, they perhaps engage more with their universities which could contribute them to exhibit UCB.

Support from three significant agents such as the universities, teachers, and peers were considered as environment variables. Most students attending universities are adolescents and are especially susceptible to outside pressures. The students' social support is reliant on interactions they have with others. Students with supports share and exchange their ideas or attitudes with agents at their universities. This exchange can make them feel that they are accepted and are a part of society (House, 1981; Sarason, Sarason,& Pierce, 1990). Perceiving support tends to help assist students in overcoming problems. Students also possibly exhibit more positive behaviors when they feel that they are supported and belong to their university's communities. Another environment variable mentioned earlier was learner-centered teaching. Students spend much of their time in the classroom. They spend at least one-quarter of their day at their academic institutions (Pianta, Hamre,& Allen, 2012). Learner-centered teaching is a paradigm that encourages students to gain knowledge through gathering and synthesizing information. Students learn to improve their potential for learning by developing their critical thinking abilities, communication, and problem-solving skills (Huba & Freed, 2000). Therefore, it is clear that students who experience this teaching style possibly increase their potential skills and act in

a way more conducive to learning. The last environment variable was ethical climate. This is the perception of students that an ethical concern exists for others within their universities. Martin and Cullen (2006) stated that this climate contributes to individuals in that it helps generate moral behavior. According to the literature review, it was a fair assumption that a causal model of UCB could conditionally be generated from the variables described above.

This research also compared the differences of the causal model of UCB between Thai and U.S.undergraduate student groups. The U.S. was considered because the number of Thai students choosing to study abroad has increased dramatically in recent years. The statistics from the Office of the Civil Commission of Thailand (2013) reported that the U.S. was the top-ranked foreign country in which Thai students chose to study (35 percent in 2012-2013). Moreover, the number of students from other Asian nations pursuing higher education in the U.S. has also been on the rise. According to the world economic forum report (2013 - 2014), with regards to the topic of the quality of its education system, the U.S. educational performance also ranked higher than Thai educational performance (the U.S. was ranked 25th and Thailand was ranked 78th).

The second reason that this study focused on these two countries was because the differences in teaching and learning in thase two countries may lead to different academic outcomes. Liberman (1994) stated that U.S. learning culture has the democratic structure of professor-student interaction, especially during classroom instructions and interactions, because U.S. classes often provide students considerably more opportunities to ask questions and to participate in open dialogues with their professors. In Thai culture, in general, young people are taught to restrain their feelings and doubts around authorities or elders. In contrast, U.S. people are typically taught in a way that encourages the sharing of feelings (McMarty et al., 1999). In comparing both Thai and the U.S. groups, it becomes apparent that the differences in these learning cultures possibly shape students' behavior differently and have differing effects on student learning and achievement. Therefore, UCB in both Thai and U.S. students may reveal different results.

Cheng (1998) indicated that education is a social–cultural process. Therefore, the process of borrowing educational practices from another culture implies an acceptance of those borrowed cultural values. This means that learning cultures are dynamic and can be

accepted across different cultures. So, adapting positive value over different cultures is acceptable and may in fact generate the most effective outcomes. Both countries have advantages and disadvantages so this study aimed to explore the causal model of UCB and compare the differences across both the groups. This might in turn have an improved effect on the quality of learning cultures, help to develop future educational systems, share their best practices, and generate a positive outcome such as UCB. Taking this concept into consideration, the cross cultural comparison perspective has been considered.

In conclusion, although the construct of UCB has not been clearly established, UCB has been shown as a positive behavior and it could be beneficial to cultivate this behavior in undergraduate students. Due to the limited research surrounding UCB, this study aimed to develop this variable and explore the significant antecedents which may contribute to universities in their efforts to develop policies and curriculum in both Thailand and the U.S. Thus, exploratory sequential mixed-methods design and comparative cross-cultural perspective were examined. The first phase began using the qualitative method to develop the scale of UCB, and the quantitative method to test the validity and reliability. In the second phase, SEM was used to test the causal model of UCB followed by testing for the differences across the Thai and U.S. groups.

Objectives of the Research

Developing the construct of UCB in depth is necessary in order to increase theunderstanding of this variable. This research consisted of two phases. The main objectives of this research were:

Phase 1

1. To conceptualize the dimensions, definition, and elicit the behavioral indicators for creating a developed scale of UCB
2. To develop a scale of UCB

Phase 2

1. To test the developed causal model of UCB among Thai and U.S. undergraduate students

2. To compare the differences of the causal models of UCB between Thai and U.S. undergraduate student groups

Significance of the Research

In Theory

1. Due to a research limitation on UCB, the findings could reveal an understanding of the UCB construct after investigating it in both Thai and U.S. undergraduate students. More knowledge and insight into UCB could be discovered. The dimensions and definition of UCB could be conceptualized.In addition, a scale of UCB would be developed. This developmentcould contribute to the betterment of the concept of UCB, which was drawn from OCB (Organ, 1988).

2. The causal model of UCB would confirm that the social exchange theory of Blau (1964) and the antecedents of OCB indicated by Organ et al. (2006) and Podsakoff et al. (2000) could be employed to the university context to describe UCB. The results could support that psychological and environment variables could explained UCB. This would help provide the understanding of behavioral science. Moreover, the finding could support social cognitive theory of career (Lent et al., 1994) in which some variables in the organizational setting could be employed in the university setting.

3. The results would reveal the differences in the causal model of UCB across Thai and U.S. groups which could support the perspective that different cultures cause different outcomes.

In Practice

The findings of this research could be beneficial in various ways. One advantage could be that universities in this study could focus on crucial factors that influence UCB.This could help universities and educators accurately examine how to develop procedures and activities that could be used to generate and encourage UCB in students. Also, effective antecedents could be used as a guideline to help generate a new insight into academic development. The results could be useful in helping to develop activities across cultures which could help identify, adapt, and adopt positive cultural academic behaviors. For other universities that are interested in UCB, they could apply the results from this research to

develop policies or curricula. The results from this study could also benefit educators by helping them to develop teaching styles and to create activities in the classroom that may generate UCB in students.Finally, for researchers or other parties who are interested in UCB,this study could be a guideline for the further development of UCB.

Scope of the Research

Phase 1

Key Informants

Key informants included participants in two separate groups. The first group consisted of six experts. They included three experts from Thailand and three experts from the U.S. The experts selected were educators who have worked in fields involving industrial organizational psychology, have worked involving students' behaviors, have experience in the OCB variables, have knowledge about OCB, or have published research related to this variable. The second group consisted of 12 students from Thailand and the U.S. It included five Thai students who were enrolled at a Thai university and seven U.S. students who were enrolled at a university in the U.S. Both universities are known for their strong education programs. The students chosen ranged from sophomores to seniors and were all actively engaged in volunteer groups. They all participated in out-of-class activities without compulsion and were recommended by teachers to contribute to this study. Participants were coded for anonymity.

Procedure

The objective of phase one was to develop the dimensions, definition, and elicit the behavioral indicators of UCB to create a developedscale for UCB. The purpose of this scale was to evaluate UCB in undergraduate students in both Thailand and the U.S. Also in this phase, literature on UCB was reviewed to determine what preliminary data existed. The qualitative technique, in-depth interview, was selected as another method of gathering more information to help clarify the definition and indicators representing UCB. The experts were asked about the possibility of applying OCB to the academic context to produce UCB, and to conceptualize a developed definition for UCB. Undergraduate students were then interviewed in order to gather behavioral indicators representing UCB.

After the behavioral indicators were investigated, a developed scale of UCB was created and tested for validity and reliability.

Phase 2

Population and Samples

The population of this study included both Thai and U.S. undergraduate students. Firstly, the education major was selected. Secondly, one university in Thailand and two universities in the U.S. were selected andall three universities were known for their strong education programs. The samples were categorized into two groups. The first group consisted of 323 Thai undergraduate students. The second group included 300 U.S. undergraduate students from two universities. The random sampling technique was used to select the samples from both Thai and U.S. undergraduate students, and included freshmen, sophomores, juniors, and seniors.

Variables

The variables for the causal model of UCB consisted of two categories. The first category, psychological variables, included: SWB, university engagement, and SU fit. The second category, environment variables, included: university support, teacher support, peer support, learner-center teaching, and ethical climate. Due to the SEM analysis in phase two of this study, the variables were re-categorized as:

Exogenous variables

- Ethical Climate
- Learner-Centered Teaching

Endogenous variables

- University Citizenship Behavior (UCB)
- Subjective Well-Being (SWB)
- University Engagement
- Student-University Fit (SU fit)
- Teacher Support
- University Support
- Peer Support

Procedure

SEM was conducted to test the causal model of UCB among Thai and U.S. undergraduate students, and the invariance analysis was used to test the differences of UCB across the Thai and U.S. undergraduate student groups.

Explanations

1. Experts. Educators who have worked in fields involving industrial organizational psychology, students' behaviors, have experience in the OCB variables, have knowledge about OCB, or have published research related to this variable.

2. Thai students. Thai undergraduate students majoring in education at a Thai university known for its strong education program.

3. U.S. students. U.S. undergraduate students majoring in education at U.S. universities known for their strong education programs.

4. Students. Undergraduate students majoring in education at Thai and U.S. universities known for their strong education programs.

Operational Definitions

1. University citizenship behavior (UCB). Behavior which students willingly perform to benefit their universities both directly and indirectly without negatively affecting others. Students gain skills in both academia and non-academia from the behavior they perform. Neither extra scores nor threat of punishment are explicitly involved. UCB is comprised of seven dimensions.

1.1. Altruism. Help students provide at their universities. This help can be both voluntary or in response to being asked. It includes help between students and other students, and help between students and teachers. It occurs in response to both academic and non-academic needs.

1.2. Civic virtue. The behavior that students exhibit when they are willing to embrace life at their universities and on campus. It includes the behavior based on a positive attitude towards their universities and reflects actions that show a feeling that they are a part of their communities and take pride in where they attend school.

1.3. Conscientiousness. The behavior where students are aware of and take responsibility for their role in their universities. They perform more than they are required to perform at their universities. It is comprised of the behavior where students give back to their community and take good care of their campus. Also, they are not the cause of any disciplinary concerns, which can ruin the universities' prestige.

1.4. Courtesy. The behavior where students respect and are concerned about other people and their surroundings. They are aware that what they do and how they act may affect others and their universities.

1.5. Sportsmanship. The behavior where students show in facing challenges and while persevering despite inconvenient or negative situations at their universities. When bad things occur to students they carefully examine the situation and think rationally before blaming another person or reacting without thinking.

1.6. Information seeking. The behavior where students eagerly give priority to the knowledge they are gaining. They have open minds and accept different points of views. They show interest in their studies, in improving their academic performance, and their university's lives.

1.7. Interpersonal relationships.The behavior where students place importance on relationships and interactions at their universities. They communicate in a kind and civil manner with people surrounding them. They always create and maintain good relationships with people and make connections with organizations to benefit their universities.

Students were asked to evaluate their actions based on UCB at ujiversities on a five-point Likert scale ranging from 1 = not true at all to 5 = extremely true.

2.Subjective well-being (SWB). Students' cognitive and affective evaluations of their lives. This consists of the judgment and feeling that they form in regard to satisfaction with their lives and academia, and also their affective reactions to a life event. SWB is comprised of three dimensions.

2.1. Life satisfaction. Students' subjectively evaluation the level of satisfaction in their lives,in general.

2.2. Academic satisfaction. Students' evaluation of the academic enjoyment they experience at their universities.

Positive affect (PA). Students find their surroundings pleasurable in general.

Students were asked to rate on a five-point Likert scale ranging from 1= strongly disagree to 5 = strongly agree for life satisfaction and academic satisfaction. For PA, the students were asked whether they have had positive feelings about their surroundings in general. The scale ranged from 1 = very slightly or not at all to 5 = extremely.

3. University engagement. Students' state of fulfillment and positivity towards their universities and their studies.This is comprised of three dimensions.

3.1. Vigor. Students have high energy when attending universities, studying, and gaining knowledge. They are resilient when it comes to their studies.

3.2. Dedication. The academic involvement of students in their universities. Students value and place importance on the academics at their universities.

3.3. Absorption. Students make a huge investment of time and energy into their universities and see attending universities as important. Students fully concentrate on studying and are not easily distracted by disturbances.

Students were asked to rate if they agreed or disagreed on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

4. Student-university fit (SU fit). The congruence between students and their universities. This includes SU fit in three aspects.

4.1. Interest-major fit. The congruence between students' interests and current major. Students feel that they are studying the right major.

4.2. Needs-supplies fit. The congruence between students' need of knowledge and the curriculum provided by universities. The students feel that the lessons in class are appropriate and contribute to their abilities. It includes the fit of student needs and the resources from their universities in non-academic related ways, which influences students' lives at their universities.

4.3. Demands-abilities fit. The congruence between students' skills in achieving academic goals and the tasks required by their universities. Students feel that they are able to meet the university's standards and that they are aligned with their abilities.

Students indicated the degree to which they agreed or disagreed on a five-point Likert scale ranging from 1= strongly disagree to 5 = strongly agree.

5. University support. Perceptions of students abouthow their universities value, and are responsible for motivating them to do well academically. Students perceive that their universities also provide resources that contribute and facilitate students' lives both inside and outside the classroom. They perceive that universities provide them good care in health and welfare which contributes to their well-being.

The students were asked to rate their perceptions of university support if they agreed or disagreed on a five-point Likert scale (from 1= strongly disagree to 5 = strongly agree).

6. Teacher support.Perceptions of students about how teachers are involved with them and maintain good relationships. Students perceive that the teachers care, pay attention, and provide help in solving both academic and non-academic related problems. Students were asked to evaluate their perceptions of teacher support on a five-point Likert scale ranging from 1= strongly disagree to 5 = strongly agree.

7. Peer support.Perceptions of students about how peers are helpful in assisting them to achieve academic goals, and thrive at their universities. They perceive that peers empathically understand and support when they face difficulties. They also perceive that peers contribute help to them to solve non-academic related problems.

Students assessed their perceptions of peer support on a five-point Likert scale ranging from 1= strongly disagree to 5 = strongly agree.

8. Learner-centered teaching. Perceptionsof students in the classroom about how teachers effectively encourage them to gain knowledge through gathering and synthesizing information. They perceive that teachers provide them with opportunities to voice their opinions and also listen to what students express. Students perceive a classroom

environment of cooperation, collaboration, and support created by teachers,which makes students adaptive and able to get along with others.

Students were asked to indicate the degree of their perceptions of learner-centered teaching in their classes on five-point Likert scale ranging from 1= strongly disagree to 5 = strongly agree.

9. Ethical climate.Perceptionsof students about ethic towards their universities and towards all members including teachers, students, and staff. Students perceive that an ethical environment exists at their universities. They perceive that the shared perceptions of university's members are based on justice and connected to the decision making, policies, and procedures of theiruniversities.

The students were asked to rate their perceptions of ethical climate at their universities on a five-point Likert scale ranging from 1= strongly disagree to 5 = strongly agree.

CHAPTER 2
LITERATURE REVIEW

This chapter encompasses the literature review regarding the concept of university citizenship behavior (UCB). The concept and framework of UCB and prior research into UCB are discussed. Aligning with the behavioral science research perspective, the focus is on two groups of antecedent variables consisting of psychological and environment variables. The psychological variables included subjective well-being (SWB), university engagement, and student-university fit (SU fit), whereas university support, teacher support, peer support, learner-centered teaching, and ethical climate were identified to be the environment variables.

The Theoretical Underpinnings of the Research

Attending university is an important step that prepares students for their future careers. Thus, it is important for them to attain good attributes such as positive values, ethics, and behaviors during their academic lives. These qualities effectively contribute to them performing well at their universities and at future organizations (LeBlanc, 2014; Khalid et al, 2013).

This study focused on UCB, which was developed from organizational citizenship behavior (OCB). According to Organ et al. (2006), the concept of OCB was discovered and examined in prior theories but was yet to be defined as OCB. For instance, Wayne, Shore, Bommer, and Tetrick (2002) indicated that social exchange theory (Blau, 1964) is a theory that has been applied to the organizational context to understand how organizations and managers create pro-organizational behavior such as citizenship. This was later conceptualized as OCB. In addition, Katz and Kahn (1966) mentioned extra-role behavior as a behavior not conforming to the employees' main duties but which can improve the effectiveness of organizations. This behavior, also, was later labeled as OCB.

The current definition of OCB is an individual's behavior which is discretionary and not directly or explicitly recognized by a formal reward (Organ, 1988). In other words, OCB represents an employees' behavior where they serve their organizations optimistically without

getting a bonus or extra monetary incentive. When it comes to UCB, OCB was employed for use in the university setting. UCB might be defined as a students' behavior which is discretionary, not directly or explicitly recognized by earning credits or extra money from universities, and might therefore remain the same concept. This corresponds because while applying UCB, students serve their universities optimistically without getting extra grades or extra scores. However, further clarification is needed because there are similarities and differences between organizational context and university context.

The similarities and differences between universities and organizations are discussed as follows. At universities, students pay for obtaining knowledge and universities prepare students for their careers, whereas in organizations, employees work to get a salary. Nevertheless, there were enough similarities to support the idea that OCB could be adapted to the academic context. Universities and organizations are places that cultivate and teach students and employees to be good citizens and to be productive and responsible members of society. Students and employees can typically obtain more knowledge and skills while studying and working. Also, employees and students have to follow the rules and be responsible in regards to their surroundings. It was a fair assumption that OCB could be adapted to the academic context, but it may require some changes since this variable was constructed for the organizational context. Thus, UCB would still need to be investigated and conceptualized.

Since research on UCB was limited, organizational theories and OCB in the organizational context were utilized to create a model for UCB and its antecedents. First used was the social exchange theory. This is defined as an exchange of resources between two individuals (Shumaker and Brownell, 1984). A feeling of obligation occurs after individuals get something from the other (Blau,1964). To adopt this theory in this research, the form of exchange could be seen when students are recognized in a positive way by their universities and they return by exhibiting UCB.

Second, the construct and causal relationships of OCB were presented in the meta-analytic study of Podsakoff et al. (2000) and the review of Organ et al. (2006). The authors indicated four major categories of OCB's antecedents. These four categories are individual

characteristics, task characteristics, organizational characteristics, and leadership behaviors. The results revealed that individual characteristics, task characteristics and leadership behaviors appeared to be more strongly correlated to OCB, and leader variables played an important role in influencing OCB. Although the meta-analysis did not present a strong relationship between organizational characteristics, this research also included this group of variables because there was strong evidence showing that organizational characteristic variables affected OCB. Therefore, organizational characteristic variables were also examined in this research's model and described further in this research. Finally, all variables extracted from social exchange theory were integrated with the four major groups of OCB and constructed as a model of UCB for this study.

In addition, one different viewpoint was revealed by Podsakoff et al. (2000). The researcher categorized advisory or staff support under the organizational characteristics variable. Nevertheless, this current research viewed advisory or staff support under leadership characteristics because this support is one of the exchange forms that generates a high quality-exchange relationship described in the leader-member exchange theory (Liden, Sparrowe,& Wayne, 1997). The theoretical model was created as shown in figure 1

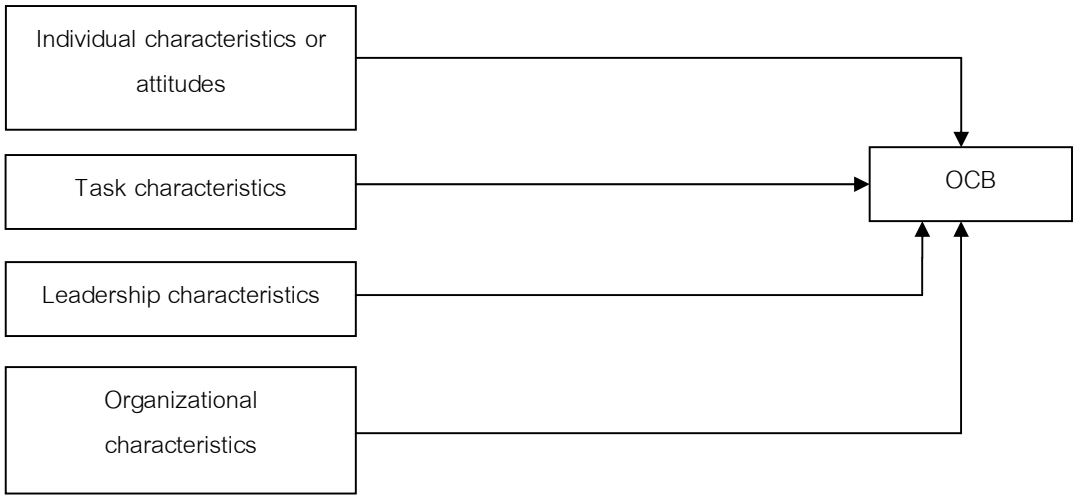


Figure 1 Theoretical Framework of OCB (Adapted From Podsakoff et al. (2000))

The reasons that this study chose to develop its UCB model from social exchange theory and the OCB concept are discussed as follows. Strong evidence illustrated that organizational variables could be adapted to the academic context as is presented by Lent et al. (1994). Through the lens of social cognitive theory of career, the authors considered that career development and academic development are involved as dovetailing. During their academic lives, students' skills and interests developed are translatable in the context of career selections. Furthermore, Lent and Brown (2006) confirmed this perspective by investigating the model of academic satisfaction with a set of social cognitive variables as antecedents, which was employed from job satisfaction's causal model (Lent et al., 2005) and the results were significant. In considering the information above, the theoretical model of OCB was developed.

In this research, universities were viewed as parallel to organizations. Members including supervisors and employees were parallel to teachers and students respectively. Supervisors were compared to teachers because they have the responsibility to provide knowledge and also assess subkrdinates' performances, similar to how teachers are responsible for providing knowledge and assessing their students' performances. Thus, the four major categories of OCB's antecedents were examined and transformed. First, individual characteristics and job attitudes were viewed as student characteristics and attitudes towards their universities. Second, task characteristic was viewed as teaching characteristic. This characteristic captured an effective teaching procedure that students are responsible to learn. Third, leader characteristics were referred to as teacher characteristics. Finally, university characteristics represented organizational characteristics.

Since this research is a study in the field of behavioral science, these four groups of antecedents were re-categorized to fit under this field. Behavioral science research is the science of studying human behaviors in order to understand, explain, predict and develop human behaviors. The research in this field does not only examine human behaviors from psychological factors and/or sociological factors but also by integrating knowledge from various educational fields such as psychology, sociology, and anthropology (Puengposop, 2013;

Bhanthumnavin, 2002). According to this concept of behavioral science, these groups of antecedent variables were re-categorized as psychological and environment variables.

Another perspective examined in this study was a cross-cultural research perspective. This is a specific method that focuses on the comparison between two or more cultures. One of the purposes of this method is to answer questions about the causes of cultural variations. The comparative method is a procedure for comparing culture patterns in multiple societies (Olatundun, 2009). In academics, comparative education focuses on persons, groups or institutions which are associated with teaching or learning in two or more educational contexts. This is done in order to discover how and why they are alike and different (Thomas, 1998). Cheng (1998) indicated that education is a social–cultural process. Therefore, the process of borrowing educational practices from another culture implies an acceptance of those borrowed cultural values. This means that learning cultures are dynamic and can be accepted across different cultures. According to the learning cultures of Thai and U.S. classrooms mentioned earlier, they are explicitly different in many aspects such as student characteristics and classroom environments. Hence, this research applied the lens of cross-cultural research perspective to discuss the differences of the causal model of UCB between Thai and U.S. student groups.

University Citizenship Behavior (UCB)

UCB in this study was developed from OCB. This research used OCB as a model to investigate the dimensions, definition, and behavioral indicators in order to create a developed scale for UCB. Moreover, social exchange theory and OCB were also preliminarily used to create a causal model for UCB.

OCB is a relatively recent approach to the relationships that exist between the members of organizations and the influence that these relationships have on the performance of the organizations. OCB is defined as an individual's behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and in the aggregate promotes the efficient and effective functioning of the organization (Organ et al., 2006). OCB is a matter of choice and

not generally understood as punishable (Organ, 1988). This approach differentiates OCB from behaviors that are considered by the employees to fall within one's job description. This variable focuses on the positive consequences and not the negative ones (Organ, 1988). Employees who exhibit OCB are acting as citizens of their organizations which in turn makes them more likely to go above and beyond what is required of them and to take actions that are notably outside of the perimeters of their job duties (Popescu & Deacounu, 2013; Kernodle & Noble, 2013).

Katz (1964) explained that OCB is composed of the following three factors and that all of these factors are required for it to be true OCB. First, employees must be hired and retained. Second, work role performance must be accomplished in a dependable manner. Finally, employees must exceed formal job requirements. In parallel, for UCB, students must be actively enrolled and have to accomplish their school tasks. Also, students must exceed academic requirements.

Throughout the decades, literature and research have revealed many aspects of OCB. The terms used by scholars to describe OCB fluctuate and vary widely. One of the most general ways to describe OCB is Organ's (1988), which proposes OCB to have 5 dimensions. First, altruism is defined as voluntary actions that help another person with an organizationally relevant task and/or a work problem. Second, civic virtue is defined as the responsible participation in the political process of the organization. This includes expressing opinions, attending meetings, and keeping abreast of larger issues involving the organization. Third, conscientiousness is defined as a pattern of going well beyond minimally required levels of attendance, punctuality, housekeeping, conserving resources, and related matters of internal maintenance. Fourth, courtesy is defined as actions including touching base with people whose work would be affected by one's decisions or commitments, passing along information, advance notice, reminders, and consultation. It also includes employees' actions that help someone else prevent a problem. Finally, sportsmanship is defined as actions where employees tolerate, avoid complaining, and avoid filing grievances about inevitable inconveniences and impositions.

OCB has been broadly studied and has rapidly grown to be accepted in the social sciences. Another popular take on OCB that researchers often cite is Podsakoff et al. (2000). According to this study, OCB is conceptualized into seven common themes. In comparison with the five dimensions of Organ (1988), altruism and courtesy are merged under the helping behavior dimension and defined as employees voluntarily helping other employees or preventing the occurrence of work-related problems. Conscientiousness is shaped into individual initiative and refers to employee willingness to enthusiastically create and improve their tasks, while still accomplishing their job efficiently. Sportsmanship and civic virtue remain the same constructs. The other three distinct dimensions are as follows. First, organizational loyalty is defined as employees spreading goodwill and protecting their organization, endorsing, supporting and also defending organizational objective constructs. Second, organizational compliance signifies employees accepting the organization's rules, regulations, and procedures, and also affecting moral adherence results regardless of whether anyone notices or monitors their action. Finally, self-development is defined as behaviors employees engage in to improve their personal skills, abilities, and knowledge.

Another empirical construct of OCB explains this concept in a two dimensional structure. Williams and Anderson (1991) suggested two broad categories of OCB as OCB-I and OCB-O. This approach is likely to focus on the unit that gets benefits from this behavior. That is, OCB-I refers to the behavior which directly benefits a specific individual, like helping others who have been absent, for instance. In addition, OCB-O is the behavior,such as giving notice when unable to come to work, that benefits organizations in general*

Although the dimensions of OCB have been presented in various ways, they reflect the same concept in that OCB is the voluntary behavior where employees serve their organizations without getting extra money or rewards. Traditionally, OCB has been studied in relation to the economic context, but the interest in studying OCB in other contexts has grown continuously over the last few years. The study of OCB has been extended from economics and its related fields to other contexts. Knowledge of OCB can be useful in many fields such as management,

psychology, sociology, academic, and ergonomics. At the moment, the academic context represents a high area of interest (Popescu & Deacounu, 2013).

There are a vast number of studies of OCB in organizations. In contrast, in the academic setting, it has not been fully explored. Due to the limited amount of research on OCB in academia, there may not be enough insight to clearly define this term. Therefore, this study focused on this gap and aimed to intensively conceptualize this behavior.

The prior research into OCB, in general, starts with a focus on employees in the workplace (Gore et al. 2014). In the academic context, OCB is investigated in two perspectives including OCB in teachers and OCB in students. These perspectives are based on the premise that this behavior contributes to organizational effectiveness such as student performance, student achievement, and other school outcomes. First, OCB in teachers seems to be adaptable with no argument about transferring organizational variables to the academic context because teachers are employees who work in academic organizations (Dipaola; & Hoy, 2005; Burns; & Carpenter, 2008). In contrast, OCB in students may require some alterations since students are not employees of their academic institution and therefore may have different goals and motivations.

In prior research,OCB in students has been given many different names such as academic citizenship behavior (Gore et al.2014; Petrella; & Gore, 2013; Gore, Kiefner; & Combs, 2012), university citizenship behavior (Zettler, 2011; Ehtiyar, Alan; & Omuris, 2010), undergraduates' organizational citizenship behavior (Khalid et al., 2013), college student organizational citizenship behavior (LeBlanc. 2014), and organizational citizenship behavior (Popescu; & Deaconu, 2013; Khalid et al., 2009; Schmitt, Oswald, Friede, Imus; & Merritt, 2008). Since this study aimed to investigate OCB in undergraduate students, the term UCB was employed.

To strengthen the viewpoint that OCB can be transferred to students in the academic context, Zettler (2011) indicated that the three dimensions of employee performance which includes task performance, OCB, and counter-productive work behavior are transferable to the academic arena. Task performance is transformed into academic task performance. This

dimension is represented first and foremost by succeeding in exams. OCB is transformed into UCB and includes behaviors such as taking extra classes voluntarily. Counter productive work behavior is transformed into counterproductive academic behavior. It covers cheating on exams. Moreover, according to LeBlanc's (2014) study, literature review suggested another aspect of OCB that could be adapted to the academic setting through the concept of in-role behavior and OCB. In-role behavior in organizations could transfer to a college setting as attending classes, writing papers and taking exams. In parallel, OCB in the college setting could be presumed as living on campus and taking honors courses. The differences of in-role behavior and OCB in both the organizational and academic settings can be concluded as shown in Table 1

Table 1

The Differences of In-Role Behavior and OCB in Organizational and Academic Contexts from Prior Research

	Organizational context	Academic context
<u>In-role behavior</u>		
Goal	Getting salary:	Earning credits by:
Behaviors	- Following job descriptions	- Attending classes - Writing papers - Taking exams

Table 1

(Continued)

OCB		
Goal	Not getting extra monetary incentive:	Not getting extra grades or scores:
Behaviors	- Altruism - Civic virtue - Conscientiousness - Sportsmanship - Courtesy	- Living on campus - Taking honors courses - Joining clubs - Running for student government - Playing sports - Working on campus - Helping fellow classmates in the classroom and dorm

The supportive evidence above reveals the possibility that OCB is transferable and usable in the academic context and can be labeled UCB, but it may require some adjustments and classifications.

The trend of researching and interest in UCB has grown continuously in the past few years. The first discovered published research on UCB is Schmitt et al. in 2008 and Khalid et al. in 2009. Since 2010, at least eight more studies have been published. A brief of UCB research is shown in table 2.2.

Table 2

Summary of OCB Concept Using in Academic Area

Author (year)	Definition of OCB adapted to the research	Underpinning concept	Sample	Measurement
Schmitt et al. (2008)	Helping fellow students academically and socially, contributing to local community service efforts and helping to recruit new students	Organ (1988)	College students in the U.S.	15 items on a five-point Likert scale adapted from Organ (1988)
Khalid et al. (2009)	Volunteer behaviors that are beneficial to universities such as active behavior involvement in social groups at universities	Organ (1988)	Public university students in Malaysia	20 items on a five-point Likert scale adapted from Podsakoff and Mackenzie (1994)
Ehtiyar et al. (2010)	Volunteer behaviors of students which ensure the improvement of their universities	Organ (1988)	Students in Akdeniz university	16 items on a five-point Liker scale adapted from Ozdevecioglu (2003)

Table 2

(continued)

Author (year)	Definition of OCB adapted to the research	Underpinning concept	Sample	Measurement
Zettler (2011)	Behaviors that contribute to the goals of the organizations by contributing to its social and psychological environment such as volunteering for additional assignments or helping colleagues.	Organ (1997); Rotundo and Sackett (2002)	Students between 18-38 years old.	27 items on a six-point Likert scale adapted from Gehring (2006)
Gore et al. (2012)	Helping of students while in an academic setting.	Williams and Shaiw (1999)	Undergraduate students from Eastern Kentucky University.	Teacher rating score from 0-100
Khalid et al. (2013)	Behaviors include helping other students with difficult course assignments, continuously support the university's core and social activities, avoid complaining when facing inconveniences on campus, and complete duties on or before the expected due dates.	Williams and Anderson (1991)	Undergraduates from an institution of higher learning in Malaysia	14 items on a five-point Likert scale adapted from Williams and Anderson (1991)

Table 2

(continued)

Author(s) (year)	Definition of OCB adapted to the research	Underpinning concept	Sample	Measures
Petrella& Gore (2013)	Based on the concept of OCB, that is the actions of employees who go above and beyond their job duties for the sake of helping others or the organization as a whole.	Williams and Shaiw (1991)	Undergraduate students from Eastern Kentucky University.	Five-point Likert scale adapted from Williams and Shiaw (1999).
Popescu& Deaconu (2013)	Did not mention the meaning of UCB as a whole but described each dimension which will be discussed later.	Organ (1988)	High school students in Romania.	24 items on a five-point Likert scale adapted from Organ (1988).
Gore et al. (2014)	Based on the concept that students go above and beyond at their universities.	Organ (1988); Williams and Shaiw (1991)	Undergraduate students from Eastern Kentucky University.	32 items on a seven-point Likert scale of Bauer, Koppes, and Palmer (2005).
LeBlanc (2014)	Behaviors involved and engaged in a more complete college experience. Behaviors not necessarily needed to graduate with a degree, nor rewarded in credits.	Organ (1988)	College students in the Northeastern United States.	24-item scale on a seven-point Likert scale adapted from Podsakoff, MacKenzie, Moorman, and Fetter (1990).

According to table 2.2, the authors seem to view UCB through the OCB lens by simply applying the model to the academic setting rather than to the business setting. However, the construct of UCB seems to diverge in definition and dimensions. Hence, this research was concerned with filling this gap of knowledge.

There are two patterns of UCB studies including UCB in each dimension based on actions (e.g., altruism, civic virtue, conscientiousness, courtesy, and sportsmanship), and UCB in how it reflects to units (e.g., UCB-I, and UCB-O). Furthermore, the definition of UCB may not have been clearly defined. Some research employed the definition of OCB by changing just the context while some defined UCB narrowly in behaviors or actions of students in each dimension. One agreeable point, given the above, is that UCB is most certainly drawn from OCB and focuses on voluntarily behavior without receiving extra benefits.

The basic knowledge of UCB may be explicitly seen from Popescu and Deaconu's (2013) research. These researchers aimed to analyze in-depth OCB among high school students. This research attempted to define a five-factor model for OCB in schools by changing the context from the organizational to the academic settings. This is similar to the study of Ehtiyar et al. (2010), but the author examined the role of OCB on university students' academic success. These two studies gave parallel examples of actions in the five dimensions of OCB in school and university contexts as shown in table 3

Table 3

Five Dimensions of OCB in Academic Settings

Dimension	Ehtiyar et al. (2010)	Popescu and Deaconu (2013)
Altruism	Helping fellow students with their school work (e.g., complete assignments, preparing for examinations, writing papers, running computer programs).	Helping mates to understand new subjects and complete papers on time. Practically, all helping action between mates to support the education process.
Civic virtue	Volunteering to help organize and participate in school activities such as student government, campus social events, athletic team pep rallies, speakers' series, philanthropic activities (e.g., food drivers) and school club duties.	Encompassing a series of social and educational activities. Volunteering participation in different artistic, sports, education, and communal activities, being conscious of the importance of their activities for their school's reputation.
Conscientiousness	Attending class on time, turning assignments in early, participating in class discussion and activities with enthusiasm, and volunteering to do more work than is required, encouraging other students to do the same.	Coming day by day at school, doing homework, participating in class discussions and activities and so on.

Table 3

(Continued)

Dimension	Ehtiyar et al. (2010)	Popescu & Deaconu (2013)
Courtesy	Informing instructors when unable to attend classes, informing team members when unable to attend meetings, obtaining feedback from team members before making changes to team projects, or refraining from actions that would be disruptive to others during lectures.	Informing their mates and teachers when unable to participate in class lessons or meetings, having a civilized behavior during the lessons and outside them, cooperating without trying to impose themselves, or their ideas at all costs, being polite.
Sportsmanship	Refraining from complaining about instructors' delays in grading assignments, classroom equipment malfunctions, or when class members do not contribute equally to team projects.	Not reacting violently to mates' cavils, not behaving inappropriately with the teachers when they get low grades even if they did not deserve them, avoiding team mate quarrels even when mates contribute unequally to projects.

Popescu and Deaconu (2013) and Ehtiyar et al. (2010) presented OCB in the academic setting as having five dimensions while Gore et al. (2014) presented this differently by only assigning four dimensions. Academic consideration resembles altruism because it involves the behavior where students assist each other in doing homework, lecturing, and studying for exams without hope of extra rewards. Conscientiousness remains a similar concept and is defined as attending class and keeping up with workload. Sportsmanship reflects students' behavior such as being adaptable to inconvenient situations without complaining. The highlight of this research is presented in academic civic

virtue. Gore et al. (2014) seems to specifically shape this dimension as a morally concerned behavior which overlaps courtesy. This dimension consists of following rules regarding cheating and plagiarism, and following the classroom policies about assignments and exams. This is also distinct from the prior research's concept of civic virtue. Moreover, the voluntary behavior regarding participating in institutional activities is not found.

Second, the research following the two-factor structure of OCB, defined as OCB-I (individual) and OCB-O (organization), was presented by Khalid et al. (2013). The behaviors that benefit specific individuals are referred to as OCB-I. The behaviors that benefit the entire organizations are referred to as OCB-O. The examples of OCB in an academic setting that are derived from this research are helping other students with difficult course assignments, continuously supporting the university's core and social activities, avoiding complaining when facing inconveniences on campus, completing duties on or before the expected due date.

In previous research, OCB was studied in the academic setting in various ways. The researchers previously mentioned used many different terms to define and clarify OCB but after close examination the similarities become apparent. After reviewing this body of knowledge as a basis for investigating the dimensions and definition of UCB, this research considered UCB to have five themes as an initial starting point. First, students help classmates in academic activities. Second, students participate in activities which may positively affect their universities. Third, students follow and respect the rules and policies both in and out of the classroom. Fourth, students are morally responsible in actions which may influence others at their universities. Finally, they are adaptable and avoid complaining about inconvenient situations on campus.

Focusing on a scale for UCB, most of the research adapted OCB scales to explore in the academic area by changing the context in each item which may not be specific enough to measure UCB in students. The samples of items in prior scales of UCB are presented in Table 4

Table 4

Sample of the Scales of UCB in Prior Research

Author (year)	Sample of items	Cronbach's alpha
Schmitt et al. (2008)	- Gone out of your way to make new friends feel welcome at school. - Defended your school when others tried to criticize it. - Participated in student government or other clubs that try to make your school a better place.	0.85
Zettler (2011)	- I take advantage of additional learning possibilities offered at my university (e.g. foreign language courses).	0.80
Khalid et al. (2013)	- I help others who have heavy workloads. - I pass information to others students. - I give advance notice when unable to come to class.	0.78 – 0.84
Petrella & Gore (2013)	- I try to avoid creating problems for fellow students.	0.71 - 0.85
Gore et al. (2014)	- I willingly give of my time to help others students who have school-related problems.	0.80

Although the Cronbach's alpha coefficients of all these scales are high, they might not specifically represent the definition or behavior of UCB since the construct has not been thoroughly investigated. This research was concerned with this gap. Therefore, one purpose of this study was to create a more accurate scale of UCB.

In conclusion, employees' goals are to earn salaries by doing their work at their organizations. In contrast, students typically pay money to receive an education. The situations and activities occurring in the workplace and the classroom are explicitly different. In the above mentioned studies, one point neglected by the authors of prior studies on UCB, is that merely changing the wordings in questionnaires may not be enough to ensure that

they cover the entire spectrum of UCB. The objectives of this study were concerned with what OCB in an academic setting really means and how it can be measured. When applying OCB to an academic context, care must be taken in the definition, dimensions, and scale since organizations and universities have differences. Therefore, the purpose of this research was to investigate the developed dimensions, definition, and scale of UCB in the first phase of the study.

University Citizenship Behavior and Its Antecedents

The purpose of the second phase of this research was to test the causal model of UCB in undergraduate students in Thailand and the U.S. The antecedents were categorized as psychological and environment variables. This section intensively explains how all antecedent variables were selected.

Psychological variables, also known as individual characteristics, were selected for the models. These psychological variables included subjective well-being (SWB), university engagement, and student-university fit (SU fit). According to Organ et al. (2006) and Podsakoff et al. (2000), individual characteristics are comprised of employee attitudes, dispositional variables, employee role perceptions, employee abilities, and individual differences. Of these variables, this research only focused on attitude variables because these variables are adjustable in humans and universities may be able to improve them in students. First, SWB was selected to represent the attitude variable. SWB is an evaluation of students about their life and academics parallel with their mood (Diener; & Chan, 2011; Diener; & Ryan, 2009; Diener et al., 2003; Diener, 2000). Gore et al. (2014) suggested that students who have a high degree of SWB are likely to be more engaged in UCB than students who have a lower degree of SWB. SWB in students seems to contribute to their acting positively and serving the betterment of their universities. Second, university engagement was chosen as another variable. This variable seems to be important in generating UCB as well. University engagement is the state of fulfilling and state of positive of students towards their universities. Students with university engagement tend to regard their universities as a vital part of their lives, and it typically increases students' feelings of loyalty towards their universities (Finn, 1989; Voelkl, 1997; Newmann, 1992). Lee (2013)

mentioned that students with a lack of engagement could cause problems such as inappropriate behavior and dropping out of school. It is reasonable that engaged students typically are willing to perform more positively in their societies and contribute to the betterment of their universities. Finally, SU fit was chosen. This variable is drawn from the person-environment fit (PE fit) theory and is defined as congruence, match, similarity, or correspondence between the person and the environment (Edwards & Shipp, 2007; Kristof-Brown et al., 2005). In this research, SU fit is the perception of students about the congruence of their academic lives and universities in many aspects. If students feel that they fit their universities, they will perhaps be more engaged with their universities. According to the reviews above, it is a fair assumption that UCB can conditionally be generated from the psychological variables both directly and indirectly as described earlier.

Focusing on environment variables, another concern of this research was to make the results more utilizable. The applications of this study may benefit universities in creating policies and teaching procedures for generating UCB. Therefore, variables associated with academic areas such as university support, teacher support, peer support, learner-centered teaching, and ethical climate were selected for the models.

According to social exchange theory, the basic structure of human reaction is the exchange. Individuals support others with an expectation of future returns for their contribution. In other words, the relationship which conducts a feeling of obligation is an exchange (Blau, 1964). Sarason, Levine, Basham, and Sarason (1981) suggested that support from societies contributes to positive adjustment and personal development. Thus, individuals with support are likely to serve and perform well in their societies. The students' social support is reliant on interactions they have with others. Students with supports share and exchange their ideas or attitudes with agents at their universities. Perceiving support from significant agents such as universities, teachers, and peers tends to assist students in overcoming problems. Besides, students tend to exhibit more positive behaviors when they feel that they are supported and are a part of their universities' communities. Hence, university support, teacher support, and peer support were selected. Another environment variable selected was learner-centered teaching because students spend most of their time in the classroom. Learner-centered teaching is a technique of encouraging and developing

an environment of maturity and mutual respect in the classroom for students (Huba & Freed. 2000). Therefore, it is possible that students who receive this teaching style typically carry potential skills which affect their happiness and are more engaged at their universities. Finally, ethical climate in this study was drawn from ethical climate in organizations of Martin and Cullen (2006). Ethical climate is a climate type with an ethical basis. This is the perception of members about what generates right behaviors. In this research, it is the perception of students that an ethical concern exists for others within their universities. Thus, this variable was selected.

In conclusion, the second phase of this research investigated the antecedents of UCB by developing the social exchange theory and the causal construct of OCB as described earlier. The set of variables from social exchange theory and four domains were applied under psychological and environment variables. First, psychological variables represented the student characteristics domain. This domain includes SWB, university engagement, and SU fit. Second, environment variables included three domains. The teaching characteristic domain was assessed through learner-centered teaching. The teacher characteristic domain referred to teacher support. University support, peer support, and ethical climate represented the organizational characteristics domain.

Psychological Variables

Psychological variables are crucial in predicting students' behaviors because students seem to act in a positive way if they generally evaluate themselves as positive. Hence, this study focused on the positive antecedents which may influence UCB both directly and indirectly. Psychological variables in this study were comprised of SWB, university engagement, and SU fit. The convincing evidence that these three variables perhaps influence UCB is described as follows.

Subjective Well-Being (SWB)

In general, having a good life is important in that individuals can see their lives as worthwhile. It is desirable for individuals to think that they are living good lives. Later on, this term evolved into SWB or is sometimes referred to as happiness (Diener, 2000). SWB is the idea of how individuals evaluate their lives. This can be positive or negative. These evaluations consist of the judgments and feelings that individuals form in three

domains: (1) their life satisfaction,(2) their satisfaction with important domains such as work or study, and (3) their affective reactions to life events such as joy and sadness. These affective reactions are part of SWB because when individuals are in a joyful or a sad mood, it can be a reflection that their lives are going well or badly (Diener; & Chan, 2011; Diener; & Ryan, 2009; Diener et al., 2003; Diener, 2000). Diener and Ryan (2009) mentioned that individuals with high SWB tend to engage more in altruistic or pro-social activities. This could indicate that SWB can benefit society because individuals with high SWB perhaps help each other and volunteer more.

In this research, the SWB of undergraduate students was considered in three aspects parallel with this concept. Life satisfaction remained the same concept. Satisfaction with important domains was reflected by academic satisfaction. Finally, the affective reaction was represented by positive affect (PA).

First, life satisfaction is a cognitive judgmental process (Diener, Emmons, Larsen; & Griffin, 1985). It can be described as the distance from individuals' aspirations that they perceive (Campbell, Convarse; & Rodgers, 1976). In other words, it is individuals' global judgments of their lives (Diener, 2000).

The second dimension was academic satisfaction. This aspect focuses on how students subjectively evaluate emotional experiences in their lives. It also focuses on their perceptions of the value of the educational experience they have gained during the academic year (Sun, Jiang, Shu; & Qian, 2014). Lent, Singley, Sheu, Schmidt, and Schmidt's (2007) defined academic satisfaction as the enjoyment of individuals' roles or experiences as a student. This definition seems to be more consistent with the purpose of this research. Hence, it was developed in this study.

The last dimension of SWB in this study was PA. This dimension is the affective state dimensions which reflect dispositional dimensions across time and situations. PA refers to experiencing pleasure with one's surrounding, being happy, feeling enthusiastic, active and alert (Watson; & Clark, 1994; Watson, Clark; & Tellegen, 1988). High PA represents a state of energy and full concentration, whereas low PA represents a state of sadness and lethargy (Watson et al.1988).

Measurements of Subjective Well-Being

The measurements of SWB were found separately in each dimension. First, to measure life satisfaction, the satisfaction with life scale (SWLS) of Diener et al. (1985) is most likely to be most employed in prior studies. This scale consisted of five items and participants were asked to rate their feelings from strongly agree to strongly disagree on a five-point Likert scale. This scale has been broadly used in many contexts and countries. For instance, Cha (2003) examined life satisfaction among Korean college students. The presented Cronbach's alpha coefficient was 0.77. Wang, Zhao and Wang (2014) assessed this variable in Chinese college students. The Cronbach's alpha coefficient was 0.81. Wei, Liao, Ku, and Shaffer (2011) evaluated college students' life satisfaction in a U.S. university. The scale had a coefficient alpha of 0.87. Another example can be seen from the study of Gore et al. (2014). College students in Kentucky, the U.S., were asked to rate their life satisfaction by using SWLS. The Cronbach's alpha coefficient was 0.87. There is another scale of life satisfaction in the academic context. This scale, the students' life satisfaction scale (SLSS) of Huebner (1991), was employed in Danielsen, Samdal, Hetland, and Wold's (2009) research. However, the researcher suggested that this scale was designed for students in grade six to twelve. Students were asked to rate on a four-point scale from never to almost always. The Cronbach's alpha coefficients of each item varied from 0.53 to 0.74.

Another dimension of SWB in this study was academic satisfaction. There are many scales investigating this variable. For instance, multidimensional students' life satisfaction scale (MSLSS) of Huebner (1994). This scale was created to measure students from grade three to twelve and also could measure students' satisfaction in various dimensions. This scale was comprised of five domains of satisfactions; family, friend, school, living environment, and self. The normal scale contained forty items on a six-point Likert scale ranging from strongly agree to strongly disagree. Danielsen et al. (2009) employed this scale to assess high school students and the result revealed the Cronbach's alpha coefficient from 0.70-0.90. Zullig, Huebner, and Potton (2011), as well, measured students from grade six to twelve in school. The Cronbach's alpha coefficient was 0.84. In addition, the academic satisfaction scale of Lent et al. (2007) is likely to be accurate in measuring university students. This scale aimed to measure students in two domains:

overall student life satisfaction and satisfaction with academic experience by using seven items. Lent et al. (2007) examined academic satisfaction among undergraduate students on a five-point Likert scale. This scale revealed the Cronbach's alpha coefficient of 0.94. Moreover, Duffy, Allan and Dik (2011) employed this scale on university students in their study. The results presented a Cronbach's alpha coefficient of 0.93. Another academic satisfaction scale was created by Schmitt et al. (2008). The scale contained five items on a five-point Likert scale and assessed undergraduate students. The Cronbach's alpha coefficient was 0.81. Chen and Yao (2014) adapted this scale to evaluate college students on a seven-point Likert scale ranging from strongly agree to strongly disagree. The Cronbach's alpha coefficient was 0.89.

PA's measurement, itself, is mostly developed from the measurement of Watson et al. (1988). This scale can be adapted to measure mood as a trait or state. The scale generally consists of twenty items. Ten items reflect PA and the other ten reflect negative affect (NA). Participants were asked to evaluate themselves on a five-point Likert scale ranging from very slightly or not at all to extremely. The authors suggested that this scale can also be used by specifying a period of time such as moment, today, past few days, or week. Gore et al. (2014) assessed PA and NA among college students in Kentucky. The Cronbach's alpha coefficient was 0.86.

This study intended to measure SWB in three dimensions including life satisfaction, academic satisfaction, and PA. The SWLS scale of Diener et al. (1985) was adapted to measure the perception of students about how satisfied they are with their lives as a whole. The reason that SWLS was selected was because this scale seems to be reliable and valid in various contexts and this scale best represented the definition of life satisfaction for this research. For academic satisfaction, this study adopted the scale of Schmitt et al. (2008). In adopting this scale, some of the statements were adjusted to make them more suitable for the context of this research. This scale was adopted because the statements included did not specifically reflect only satisfaction with coursework or knowledge like the scale of Lent et al. (2007). They were also concerned with others units which possibly affected students at their universities as well. Finally, the scale of Watson et al. (1988) was adapted to evaluate PA since this scale was commonly acceptable and

effective in most studies. The items were straight forward and represented what needed to be assessed.

Research Evidence for Subjective Well-Being

SWB has been broadly examined in the academic context. Gore et al. (2014) investigated the effect of SWB on UCB. The researchers suggested that three-dimension SWB consisting of lif e satisfaction, PA, and NA in their research was the most common form of SWB studied in the area. The study was categorized into two parts. The first part investigated the relationship between both PA and NA and UCB. The second part examined the relationship between life satisfaction and UCB. The findings showed that PA and NA predicted UCB in different dimensions but life satisfaction affected all dimensions of UCB.

Due to the limited research on UCB, in order to strengthen the premise that SWB influences UCB, the relationship between SWB and OCB was employed. As stated above, academic satisfaction was one of the dimensions of SWB in this study. Hence, job satisfaction was selected as a representative of academic satisfaction to discuss the effect on UCB. This was done because they both fell under the concept of satisfaction with specific domain. Siddal,Huebner, and Jiang (2013) suggested that school satisfaction in students is similar to job satisfaction in employees in many aspects. There were a large number ob studies focusing on the relationship between these two variables. For instance, Arasli and Baradarani (2014) tested the hypothesis that job satisfaction affected OCB in hotel employees. Job satisfaction in this research was defined as the pleasant feelings that results from the appraisal of the job or by the job facilities. The results revealed that job satisfaction positively related with OCB. Talachi, Gorji, and Boerhannoeddin (2014) examined the relationship between job satisfaction and OCB as well. Job satisfaction was viewed as individuals' evaluations of their jobs and work context. The results revealed that job satisfaction significantly positively related with OCB. Furthermore, job satisfaction was found to have an effect on OCB in various types of organizations. According to Swaminathan and Jawahar (2013), this study was conducted at academic institutions and the information was gathered from faculty members. In this research, OCB was drawn from

Organ (1988) and included five dimensions. The results demonstrated a positive relationship between Job Satisfaction and OCB.

PA was another dimension of SWB in this study. Williams and Shiaw (1999) examined the effect of mood on OCB. Mood was viewed as a state of emotion. This was consistent with PA in this current research. The findings indicated that employees who rated themselves as being in a good mood seemed to perform more OCB.

H1: SWB has a positive effect on UCB.

In conclusion, SWB in this study highlighted students' evaluations of their lives and affective reactions to life events in three domains. SWB included life satisfaction, academic satisfaction, and PA. Life satisfaction referred to the level of students' satisfaction in their lives during the university year.Academic satisfaction specifically focused on the students' academic enjoyment of their experiences at their universities.PA was the pleasurable experiences of students with regards to their surroundings in general. According to prior research, there was a possibility that SWB may affect UCB. Individuals with high SWB tend to perform in a manner that contributes to a betterment of their universities. Therefore, this research deduced that SWB could have a positive direct effect on UCB.

University Engagement

Students spend most of their time at universities taking part in both academic and non-academic activities. It can be implied that the universities are a key and integral part of students' daily life. The university setting is central to both their academic and social lives. It is a place where students attend class and attain knowledge. It is a hub of activity and excitement, brimming with energy and teaming with their peers. It is an essential location in meeting and building relationships with both professors and other students. It is a place to start and build on relationships that typically last a lifetime and help forward the student's careers.

The term university engagement in this research was adapted from many concepts of engagement. Researchers have recently used the term engagement to describe various differing concepts. The variations across the concept of engagement that many researchers primarily draw from is shown in table 5

Table 5

The Variations Across the Concept of Engagement in Academia

Name	Research citation	Definition
Identification with school	Finn (1989) (U.S.A.)	Students who identify with school have an internalized conception of Belongingness. Students are discernibly part of the school environment and that school constitutes an important part of their own experience. Valuing. These individuals value success in school-relevant goals.
Identification with school	Voelkl (1997) (U.S.A.)	Students have bonded with school and incorporated it as a significant part of their self-concept and lifestyle consisting of Belongingness. Feeling of being a significant member in the school community, being accepted and respected in school, having a sense of inclusion in school, feeling proud to be a member of the school, and including school as part of students' self-definition. Valuing. Students regard school as a central institution in society and feel that what is learned in class is important in its own right and that school is instrumental in obtaining his or her personal life objectives.

Table 5

(continued)

Name	Research citation	Definition
Student engagement	Newmann (1992) (U.S.A)	Students make a psychological investment in learning and try hard to learn what school offers and also invest themselves in the mastery of school. Students take pride in studies not simply tasks in earning the formal indicators of success (grades), but in understanding the material and incorporating or internalizing it in their lives.

Engagement in the academic context from the concept called identification with school appeared to be used most often in earlier research. Finn (1989) fundamentally proposed the idea that identification with school consists of two dimensions. First, students who identify with school have a strong sense of belongingness. They feel themselves to be part of the school environment. School constitutes an important part of their daily experience. Second, these individuals value success in school-relevant goals.Therefore, identification can be seen as a state with two components: belonging and valuing. Voelkl (1997), then, expanded on this concept of identification with school. Belongingness was represented by the feeling of being a significant member in the school community, being accepted and respected in school, having a sense of inclusion in school. The concept of valuing was also expanded to include the recognition of the value of school as both a social institution and a tool for facilitating personal advancement. Moreover, students regard school as a central institution in society and feel that what is learned in class is important in its own right. To them, school is instrumental in their personal life objectives, not just formal indicators such as grades (Newmann, 1992).

Many recent studies and research use the concept of engagement adapted from the reviews above. An example is Willms (2003), who used the term engagement to

refer to the extent to which students identify with and value school outcomes, and participate in academic and non-academic school activities. Its definition is usually comprised of a psychological component pertaining to students' sense of belonging at school and acceptance of school values, and a behavioral component pertaining to participation in school activities. As thorough as these studies are, they tend to see this concept in the same way which can be seen in Appleton, Christenson, and Furlong (2008). Their research compiled the variations across the conceptualizations of engagement which were defined as engagement in school work, academic engagement, school engagement, student engagement, student engagement in academic work, student engagement with school, and participation identification.

Additionally, Fredricks, Blumenfeld, and Paris (2004) reviewed and clarified the definition of school engagement into three types. First, behavioral engagement draws on the idea of participation. It includes involvement in academic and social extra-curricular activities and is considered crucial for achieving positive academic outcomes. This engagement consists of behaviors that illustrate effort, persistence, concentration, attention, asking questions, contributing to class discussion, following rules, studying, completing homework, and participating in school related-activities (Finlay, 2006). Second is emotional engagement. This engagement is defined the same as identification with school by Finn (1989) and Voelkl (1997) described above. It contains positive and negative reactions to teachers, classmates, academic and school and also includes interests, values, and emotions. Moreover, emotional engagement is presumed to create ties to an institution and influence willingness to do work, feelings of belonging, and appreciation of success in school (Finlay, 2006). Last is cognitive engagement. This engagement comes from the literature on school engagement which stresses investment in and effort directed toward learning. It also comes from literature on learning and instruction which involves self-regulation, or being strategic. It also includes a desire to go beyond the requirements and challenges (Finlay, 2006).

One point that stands out is a lack of differentiation in definition across various types of engagement in academia and that there is no distinction made between effort in behavioral and cognitive engagement because effort is included as a part in these

two dimensions (Fedricks et al., 2004). This idea conforms to Finlay (2006) which stated that engagement is typically described as having two or three components. The two-component model includes a behavioral (e.g., positive conduct, effort, and participation) and emotional (e.g., interest, identification, belonging, and positive attitude about learning) element. The three-component model additionally includes a cognitive (e.g., self-regulation, learning goals, and investment in learning) element.

Another new approach of engagement was investigated by Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002a). In this approach, engagement is categorized into three dimensions: (1) vigor,(2) absorption, and(3) dedication. The researchers defined engagement as a motivational construct, which is positive and fulfilling work-related. Vigor is high energy at work, such as mental resilience and persistence when facing difficulties. Dedication relates to an involvement between members and organizations, which illustrates significances, challenges, enthusiasm, and pride. The authors argued that dedication in this construct is one level aboveidentification because it is embedded deeper in individuals and also includes the affective dimension. The last domain is absorption, which is exemplified as concentrating fully, being difficult to be detached from work, and beingunaware of time when being strongly engrossed in work. This approach is not only constructed for organizations but also academic areas. According to the study of Schaufeli et al. (2002a), after the three dimensions of engagement were defined, the researchers suggested that this construct also reflects a sense of engagement in undergraduate students.

Measurements of University Engagement

The measurements of engagement in the academic context have been created in various ways due to differing research purposes. The academic engagement scale of Skinner, Zimmer-Gembeck, and Connell (1998) consisted of 18 items and reflected two domains: emotional and behavioral. Zimmer-Gembeck, Chipuer, Hanisch, Creed, and McGregor (2006) adapted this scale and transformed it into three dimensions: positive behavior and emotion, negative emotion, and boredom. The participants in their study were high school students. They were asked to rate on a five-point Likert scale ranging from not all true to very true with an overall Cronbach's alpha coefficient of 0.86.

Another scale which has been widely used is the Ultrecht work engagement scale-student (UWES-student) of Schaufeli, Martinez, Pinto, Salanova, and Bakker (2002b). This scale was used to evaluate undergraduate students with a seven-point Likert scale from never to daily, for instance, in the U.S. and China. The Cronbach's alpha was 0.71 to 0.86 for each dimension in U.S. students and 0.92 for overall engagement in Chinese students (Zhang et al., 2015; Alarcon & Edwards, 2011). In addition, the prior research in China adapted an employee version of UWES to measure undergraduate students and replaced the wordings from work or job to study or class. The Cronbach's alpha coefficient was presented ranging from 0.742 to 0.795 (Zhang, Gan & Cham. 2007).

The scale of Schaufeli et al. (2002b) was considered in this study because it is likely to capture the definition of university engagement in this research. Moreover, this original scale was used in many countries including Spain, Portugal, and the Netherlands. The variety of settings this scale had been successfully used in supported the viewpoint that this scale could possibly be applied across many countries. Therefore, this study slightly modified this scale by adjusting some statements of items in order to accommodate the context of this study.

Research Evidence for University Engagement

Since UCB has not been broadly investigated, the effect of university engagement on UCB has not been found in prior research. However, there was evidence showing that engagement in school can generate other positive school outcomes. Lee (2013) examined the effect of student engagement consisting of emotional engagement and behavioral engagement on reading performance. The results revealed that behavioral engagement affected students' reading performance. In examining the previous studies of engagement in the academic context, one thing becomes evident. These concepts show that engagement does not just refer to grades and formal academic outcomes. According to these ideas, engagement also influences students' entire self-concepts. Also, it is a major factor molding many aspects of students' lives.

Due to the limited research on the relationship between university engagement and UCB, the brief of organizational engagement is further discussed to show

the similarity of the engagement construct in both contexts and possibly supports this presumption about the relationship between university engagement and UCB.

In parallel, in the organization context, one significant approach of organizational engagement is drawn from the personal engagement concept of Kahn (1990). This concept states that personal engagement is the simultaneous employment and expression of a person's preferred self in task behaviors that promote connections to work and to others, personal presence (physical, cognitive, emotional), and active, full role performances. When employees are engaged in their work, they increase occurrences of behavior that promote efficiency and affect the function of the organization (Ariani, 2013).

There is a concept which is close to one dimension of university engagement (emotional engagement) called organizational identification. This variable is defined as a perception of oneness with or belonging to an organization. It relies on the direct or vicarious experience of its successes or failures. This variable also induces the individual to engage in and derive satisfaction from activities congruent with their identity. It encourages individuals to view themselves as an exemplar of the organization and reinforces factors conventionally associated with group formation. In addition, this variable provides a mechanism whereby individuals gain a feeling of trust towards their organization and this in turn establishes feelings of loyalty and commitment to one's organization. This also provides an indirect path through which socialization may increase the internalization of organizational values, beliefs, and corporate cultures (Ashforth; & Mael, 1990).

When considering the similarities of organizational identification and emotional engagement, these concepts are the positive psychological terms between person and institution which can affect their performance and lives.

Table 6

The Similarity in Concept of Emotional Engagement and Organizational Identification

Institution	Belongingness	Valuing
University (emotional engagement)	Students feel a part of their university.	Students regard university as an essential step towards their career goals. University is a central part of their life.
Organization (organizational identification)	Employees have a feeling of belonging to their organization.	Employees feel they can rely on their organization and in turn feel loyal and committed.

According to the review of engagement in organizations, they are likely to emphasize the bond between members and the organization. This perspective is shown in engagement in the academic context as well.

The relationship between organizational engagement and OCB has been found in many studies. Convincing evidence was revealed by Rurkkhum and Barlett (2012). This research aimed to examine the relationship between employee engagement and OCB. Engagement in this research was drawn from Kahn's (1990) approach and the UWES scale was applied to measure employees in Thailand. Three dimensions of engagement including vigor, dedication, and absorption were explored. Turning the attention to OCB, the authors focused on the five-dimension model of Organ (1988). The result revealed a significant relationship between engagement and OCB in all dimensions. In addition, Babcock-Roberson and Strickland (2010) studied the mediation model of charismatic leadership to UCB via work engagement. The result revealed a full mediation of work engagement between the relationship of charismatic leadership and OCB. Another supportive research was shown inthe study of Sulea et al. (2012). The job-demands resources model was used to study OCB. The result indicated that work engagement partially mediated the effect of interpersonal conflicts at work, conscientiousness, and perceived organizational support on OCB.

In order to capture the relationship between university engagement and UCB, another set of relationships which is determined to support the research assumption is the relationship between organizational identification and OCB. Although there has been limited research examining the specific relationship between organizational identification and OCB, this variable has received attention as a unique research topic compared with other psychological variables thought to be relevant to work behavior. There is a meta-analytic study focusing on organizational identification that showed there was a moderate correlation between organizational identification and OCB (Riketta, 2003). Moreover, organizational identification was used to study OCB in many types of organizations such as hospitals and universities. The findings revealed a positive correlation between both variables (Dick, Wagner, Stellmacher,& Christ, 2005; Bellou, Chitiris, & Bellou, 2005; Mayfield, 2008). Not only testing between these two variables, Choi, Moon, Ko and Kim (2014) tested the mediating effect of organizational identification in relationship with organizational justice and OCB as well. This study also examined the moderating effects of transactional and relational contracts in the relationship between both variables in employees of a South Korean company. The results showed that organizational identification mediated organizational justice and OCB.

H2: University Engagement has a positive effect on UCB.

In conclusion, the university engagement presented by Schaufeli et al. (2002a) is likely to be the most effective concept in assessing students because this concept captures the sense of engagement that this study aims to investigate. This approach combines sense of belonging, valuing, affective, and behavioral engagement. Also, the authors claimed that it potentially measures engagement more deeply than the prior concepts. Thus, this study viewed university engagement in three domains: vigor, dedication and absorption. However, the relationship between university engagement and UCB has not been found. Thus, this current study presumed that the significant relationships between organizational engagement and OCB and between organizational identification and OCB show the possibility that university engagement and UCB relate to each other. Hence, this research theorized that university engagement has a positive effect on UCB.

Student-University Fit (SU fit)

Undergraduate students in universities are typically in the transition between adolescence and becoming an adult. They may therefore bemore easily affected by the circumstances and environments surrounding them. That is, if universities provide them a good fit, they possibly remain at their universities and perhaps become responsible, productive, and/or morally accountable adults and employees in the future. Thus, this study was concerned with the congruence between student and university.

SU fit in this research was drawn from person-environment theory (P-E fit). P-E theory historically arose out from Lewin's (1935) study that explored why, in a giren momentary situation, with a given person (P) in a certain environment (E), does precisely this behavior (B) result. The researcher confirmed that the behavior is a function of the momentary total situation ($B = f(P, E)$). This theory has been conceptualized in various ways but in the most general sense it is defined as congruence, match, similarity, or correspondence between the person and the environment. The fit occurs when theircharacteristics are well matched (Edwards & Shipp, 2007; Kristof-Brown et al., 2005).

Types of P-E fit have been applied broadly. One aspect applied is the compatibility between an individual and their job, organization, work group, and supervisor. Each aspect of fits hasbeenlabeled as person-job fit (PJ), person-organization fit (PO), person-group fit (PG), and person-supervisor fit (PS). PJ is the relationship between individuals' characteristics and jobs or tasks which are performed at work, while PO focuses on the entire organization. PO is defined as the compatibility between the norms and values of an organization and the values of persons(Chatman, 1989). PG is the interpersonal compatibility of individuals and their work groups, and PS addresses the dyad of individuals and others in their organization (Kristof-Brown et al., 2005).

Two other aspects of P-E fit are complementary and supplementary fit. Complementary fit consists of demands-abilities fit, which is defined as the match between abilities and job requirements (Edwards & Ship, 2007), and needs-supplies fit is the congruence of individuals' need and environmental supplies (Kristof, 1996). Meanwhile, supplementary fit occurs by the similarity of the individual and the organization (Kristof-Brown et al., 2005).Likewise, these aspects of fit can be concurrently described;

complementary fit has dominated the PJ, while supplementary fit has governed the PO, PG, and PS.

In academia, P-E fit has been employed and defined as student-university fit (Gilbreath, Kim; & Nichols, 2011), student-institution fit (Bowman; & Denson, 2014) or remained as person-organization fit or person-environment fit in the academic context (Schmitt et al., 2008; Roberts; & Robins, 2004). Wintre et al. (2008) aimed to investigate the meaning of match between student and university by interviewing students who deregistered from and those who continued at their university during the first academic year. The interview responses were coded and classified as themes. The findings indicated that the match between student and university included nine themes; environment, achievement, social, attachment, personal autonomy, travel, proximity to home, size of campus, and no theme. It is apparent that the study of Wintre et al. (2008) provided results that parallel the P-E fit theory in which all themes can be categorized under the same umbrella. Environment, travel, proximity to home, and size of campus themes are consistent with PO, while PJ dominates the achievement theme. PS connects to the social theme, and PG is comprised of the attachment and personal autonomy themes. The reason that no theme is not assigned under any type of fit is because it was defined as the match in general with no clearly explanation. These findings presented an idea that SU fit can be carried over from P-E fit in organizations and still remain the same concept.

To measure the fit, this research focused on what is distinct between the objective and subjective representations of the person and the environment presented by Edwards, Caplan, and Harrison (1998). Objective P-E fit refers to the fit between the objective person and the objective environment. Subjective P-E fit, refers to the fit between the subjective person and subjective environment. Objective fit, by definition, is free of the bias of human perception because it refers to what actually exists in both the person and environment. It can include facts about the person and environment that are not perceived by the person. To measure the objective element can cause bias since using another person to rate a subject's personal characteristics is likely to represent another set of subjective views. This problem with objective measurements remains an important issue for all behavioral science (Caplan, 1987). To avoid this bias, this research focused on the

subjective P-E fit. Subjective fit is what is perceived by individuals. In other words, the subjective person means the person's perception of his or her own attributes, and the subjective environment signifies the situations and events as encountered and perceived by the person (Edwards et al., 1998).

Moreover, measuring fit can be considered as direct and indirect. Direct refers to the perception where individuals think their characteristics match or fit their perceived accrue to organizations, whereas indirect requires the participants to rate themselves and environments separately, and they can be difference sources. For instance, employees rate their needs, and supervisors or external observers rate supplies provided by organizations. In order to select the method for measuring fit, there is disagreement about which approach is best suited. Cable and Judge (1997) suggested that both approaches of measuring are weakly related. Indeed, it depends on each research perspective. This research specifically focused on the perceptionthat students have about how fit they perceive. Therefore, subjective fit from single sources was selected.

According to the review above, this research shed light on the congruence between students and universities through students' perceptions and defined it as student-university fit (SU fit). SU fit referred to the match between students and universities and focused on supplementary fit and complementary fit. Supplementary fit is the congruence between students and universities. This research took an interest in the academic interests of students and majors they study. Complementary fit was comprised of two aspects: demands-abilities fit and needs-supplies fit. Demands-abilities fit was the match between students skills in achieving academic goals and the tasks required from universities. Ultimately, needs-supplies fit reflected students' need for knowledge and the curriculum provided by universities.

Measurements of Student-University Fit

As stated earlier, this study gave attention to directly assessing a feeling of a good fit from students' views. A large number of studies employed the academic fit scale presented by Schmitt et al. (2008) to evaluate fit between students and institutions. Originally, this scale was created to measure students by asking them to indicate how well they think their characteristics match what they perceive from their university. It was

comprised of 6 items with a Cronbach's alpha coefficient of 0.75. Undergraduate students were asked to report on a five-point Likert scale. Sawitri and Dewi (2015) also adapted this scale to assess university students. The coefficient reliability was presented as 0.75. Another scale isthe student university match questionnaire (SUM) of Wintre et al. (2008). This scale was created by gathering data with a qualitative technique and was comprised of 17 items reflecting five domains: social dynamic of university, aspects of university relate to academic achievement, vocationally relevant, and general characteristics of the university environment. Respondents were asked to rate on a five-point Likert scale from absolutely no fit to a great fit. The Cronbach's alpha coefficient was 0.87. Another scale which is likely to be usable is the perceived academic fit scale. Li, Yao, Chen and Wang (2012) developed this from the personal subjective fit scale of Cable and DeRue (2002) and the academic fit scale of Schmitt et al. (2008). The new scale removed some items from Schmitt et al. (2008) and changed the wordingof Cable and DeRue (2002) to suit the academic context. It consisted of nine items and reflected three dimensions: interest-major Fit (IM fit), demands-abilities fit (DA fit), and needs-supplies fit (NS fit). This scale was used to evaluate freshmen on a seven-point Likert scale ranging from strongly agree to strongly disagree. It introduced a Cronbach's alpha coefficient of 0.86. Etzel and Nagy (2015) adapted this scale but all items remained from Schmitt et al (2008). The authors assessed university students on a five-point Likert scale ranging from strongly agree to strongly disagree. The Cronbach's alpha coefficient was presented as 0.85.

This research employed a scale of SU fit developed by Li et al. (2012). This scale was selected for this study because it was created to evaluate the perceptions of students and it also reflected both complementary fit and supplementary fit of students in universities. The wording of items was slightly adjusted and more items were added to accommodate the definition of SU fit in the present study.

Research Evidence for Student-University Fit

SU fit was presumed to have a positive effect on university engagement. The relationship between these two variables in the academic context was presented by the study of Zimmer-Gembeck et al.(2006). The authors studied grade 10 to 11 students by examining the relationship of school fit and academic engagement under the

self-determination theory's umbrella. School fit was defined asthe perception of students of autonomy support, involvement, and structure within the school context. The results revealed a strong relationship between both variables. Since the research on the relationship between fit and engagement in universities has not been found, in order to strengthen the relationship between SU fit and university engagement, research on fit in organizations was employed due to the inadequate evidence of fit in universities. Biswas and Bhatnager (2013) studied PO fit as an antecedent of employee engagement. The information was gathered from employees in India, and the finding indicated PO fit predicted employee engagement. Convincing evidence was presented by Shuck's (2010) study as well. This research aimed to examine the effect of job fit on employee engagement among employees in diverse contexts such as service, nonprofit, and hospitality organizations. Job fit in this study was defined as the same concept as PO fit, which reflected the congruence between persons and organizations. The results demonstrated the effect of job fit on employee engagement as predicted.

H3: SU Fit has a positive effect on University Engagement.

In conclusion, SU fit in this study was examined under supplementary and complementary fit. Supplementary fit was assessed through the congruence between selected majors and students' interests. Complementary fit was viewed as needs-supplies fit and demands-abilities fit. The studies illustrated above reveal the significance that SU fit possibly contributes to encouragingstudents to engage in their universities.

Environment Variables

The environments at universities are important in cultivating students' behaviors. Universities are the institution where students gain knowledge and learn how to interact and create relationships with people.If students perceive this environment to be moral, ethical,and supportive, they are likely to perform as moral, ethical, and supportive studentsand are more willing to reward their universities by exhibiting UCB both directly and indirectly.

Social Support

Support is the idea that individuals are valued and have other individuals caring for and about them. Individuals may get help and support in the form of material objects, information, mentoring, and social relationships, that positively impact their health and well-being (Berrara, 1982; House& Kahn, 1985; Sarason et al., 1990; Shumaker & Brownel, 1984). Social support is crucial to an individual's livelihood because individuals need help from others to make them feel secure and give them a feeling of spiritual stability. Social support also relies on interactions with others such as sharing and exchanging ideas or attitudes with others. This can make individuals feel that they are accepted and are a part of society. Furthermore, social support acts as a moderator between negative feelings such as stress, anxiety, or pressure and wall-being because people with a perception of social support tend to have a greater potential of coping abilities (House, 1981; Sarason et al., 1990).

House (1981) described the four categories of social support. First, emotional support is the expression of empathy, concern, caring, trust and love. Second, instrumental support is a helping hand consisting of tangible assistance and services such as helping with money, and time. Third, informational support consists of suggestions, beneficial information, and advice that may assist individuals in responding to an issue effectively and wisely. Finally, appraisal support is information or feedback that is useful for individuals to help evaluate themselves.

In applying this to the university context,it is important to remember that students spend a very important period of growth in the universityenvironment. Students may have significant opportunities of growth and change, and may be faced with various problems including social, academic, and personal adjustment. Universities also offer a new environment for students to try out new identities and social ties, and to experiment withactivities, interests, and social relationships (Duru, 2008). Thus, social support affects students during their whole university tenure. There are various sources such as peers, teachers, and universities which affect and assist students to do well in their universities (Bejerano, 2014). Students with social support may adjust better than students without it. Social support relates to how successful students are able to establish connections with

others and social support is a communication phenomenon (Bejerano, 2014; Duru, 2008). Therefore, it may create motivation for students to achieve and create bonds between students and universities which may drive students to serve their universities well.

Social support in the university context refers to a relationship that students have with people and universities both inside and outside the university setting. This research addressed three units which students at universities interact with and are typically affected by: universities, teachers, and peers.

University Support

To strengthen the idea that support from the university is crucial in students' academic lives, university support in this research was deduced from perceived organizational support theory (POS). Since POS is an organizational theory, this research illustrated universities as organizations and students as the members ofthose organizations to assess the similarity of organizations in general, which have employees as their members.

In accordance with POS, this theory was drawn from social exchange theory, which indicates that the basic structure of human reaction is the exchange. Individuals support others with an expectation of future returns for contribution. In other words, the relationship which conduce a feeling of obligation is an exchange (Blau, 1964). In organizations, employees perceive support when the organizations value their contributions and care about their well-being. Employees expect to get support differently in various situations. Support can be seen in terms of a response of organizations to employees' illness, mistakes, and superior performance. Moreover, another aspect that cannot be neglected is the actions of an organization to make the employees' job meaningful and interesting (Eisenberger, Huntington, Hutchison,& Sowa, 1986).

The advantages of getting support in psychological processes were addressed by Rhoads and Eisenberger (2002). First, POS produces a feeling of obligation; therefore, employees are willing to help their organizations to reach goals and also care about their organizations' welfare. Second, since emotional needs are fulfilled, employees should incorporate as a member of their organizations. Third, the beliefs of employees are that if they increase their performance, they will be rewarded and recognized are strengthened.

In the university context, there is an interaction between students and their institutions. Both units support each other and are a driving force to generate their benefits. Students study with an expectation to get knowledge for their careers, and universities gain money and a reputation from students to propel the organizations in the future. Drawing under the POS umbrella, it may indicate to universities that students need support from universities to fulfill their needs. Universities are not just the institutes that provide students an education but are responsible to motivate students to do well in academia and provide good care for students' health and welfare. For example, universities may promote or provide a scholarship for students who perform well, which makes students' academic lives meaningful and more interesting. These contributions may lead students to develop themselves and experience well-being. Moreover, students may possibly serve their universities well in the future.

Measurements of University Support

Generally, some of the research on social support in the academic area blended teachers and institutions as the same agent (Cole & Espinoza, 2008). Since the purpose of this research was to examine the support from universities and teachers as separate agents, POS was employed to illustrate the role of universities. Therefore, POS'scale was considered. Eisenberger et al. (1986) created the survey of perceived organizational support (SPOS), which is likely to be useful. The scale was comprised of 36 items for assessing perception of employees that their organizations supports them in many domains such as goals, talents, well-being, and performance. The short version of SPOS was revealed by Rhoades, Eisenberger, and Armeli (2001). This scale consisted of 8 items, and participants were asked to rate on a seven-point or five-point Likert scale ranging from strongly agree to strongly disagree. Both versions of SPOS have been adapted to various types of organizations such as business, academic, and health. The studies that used SPOS presented coefficient reliabilities from 0.70 to 0.95 (Hashis, 2015; Muhammad, 2014; Chiang & Hsieh, 2012; Gutierrez, Candela,& Carver, 2012; Sulea et al., 2012; Liu, 2009).

The adapted version of SPOS introduced by Rhoades et al. (2001) was considered because it was extensively used in previously published research about

support from organizations. The wording of the original scale was slightly modified in order to fit the participants since the prior scale was intended for employees.

Research Evidence for University Support

Due to limited studies on UCB and university support, the relationships between these two variables were employed from another variable with moral concern being used to represent UCB. For instance, Saengcharoen (2013) conducted research on the causal relationship of the public mind among undergraduate students. Public mind in this research was defined as a psychological attribute that involves valuing social interaction and public property in society. This consisted of three domains: avoiding destroying public property, taking care of public property, and respecting others in using and sharing public property. The findings revealed that university support significantly predicted public mind. To strengthen the relationship of university support and UCB, convincing evidence may be deduced from variables in the organizational context as well. That is, the relationship between POS and OCB was chosento represent the relationship between university support and UCB. The relationship of POS and OCB has been studied using many methods. Kaewmanee (2011) aimed to examine the relationship between POS and OCB among nurses by using multiple regression analysis. The result revealed that POS had a positive effect on OCB. Cheung (2013) examined the effect of POS on OCB in engineers in Hong Kong. The author viewed OCB in two dimensions as OCBI and OCBO,which aligned with Williams and Anderson (1991). The results indicated the significant effect of POS on both OCBI and OCBO. Duangpratum (2012) used the canonical method to investigate the relationship between POS and OCB of employees in private organizations in Thailand. The findings confirmed the set of relationships with two types of canonical weight loading on different dimensions of both variables. The longitudinal study with a cross-lagged panel design was also employed to confirm the leading effect between POS and extra-role behavior. Chen, Eisenberger, Johnson, Sucharski, and Aselage (2009) presented the relationship between POS with the change in extra-role performance, whereas the relationship between extra-role performance and change in POS was not significant. This finding could indicatethat POS was an antecedent of extra-role performance. Since a large number of studies have found a relationship between POS and

OCB in the organization context, the relationship between university support and UCB is presumed.

H4a: University Support has a positive effect on UCB.

Another consequence of POS that this research was concerned with was SWB. Social cognitive career theory (SCCT) seemed to be useful in explaining academic satisfaction and antecedents. According to SCCT (Lent et al., 1994), the researchers stated that work and academic domains are overlapped and may be adaptable over these two contexts. The first investigation was by Lent and Brown (2006). The researchers constructed a theoretical social cognitive model of work satisfaction. Later on, this causal model was tested with academic satisfaction by Lent et al. (2007). This research examined academic satisfaction as a dependent variable in with goal progress, outcome expectations, self-efficacy expectations, and environmental supports and resources. The results revealed that the model fit to the data well and could explain unique variations in students' academic satisfaction. Environmental supports and resources positively affected academic satisfaction. Lent's model has been broadly studied to investigate a causal relationship of satisfaction. For instance, Feldt (2012) adapted Lent's model to study college satisfaction. The researcher defined college satisfaction focusing on the career development domain in two dimensions. The first dimension was the satisfaction students have with personal career development (personal satisfaction). The second was satisfaction when universities provide adequate resources to facilitate successful career development (institutional satisfaction). The results highlighted that perception of resources significantly affected personal and institutional satisfactions.

H4b: University Support has a positive effect on SWB.

Turning our attention now to the engagement variable, the relationship between POS and engagement was one of Saks' (2006) study perspectives. Employees from various types of organizations were assessed, and the results revealed that POS had a positive effect on engagement. Sulea et al. (2012) examined POS as one of the antecedents of work engagement. The authors employed Eisenberger, Cummings, Armeli, and Lynch's (1997) scale to facilitate POS, and work engagement was assessed through Schaufeli,

Bakker, and Salanova's (2006) scale. The finding indicated that POS predicted engagement as well.

H4c: University Support has a positive effect on University Engagement.

Teacher Support

Teachers are another agent who possibly creates strong bonds with students in universities because teachers spend the majority of the day in the classroom. Teacher support is the need of students to feel that teachers are involved with them, know and care about them. Students need to feel that they can make important decisions for themselves. When they desire respect and the opportunity to make a decision, they need a clear sense of ideas to make a decision. Moreover, when students' work is assigned, they need a clear understanding that the work has relevance to their present or future lives. They also need to know what teachers expect and that those expectations are fair (Klem & Connell, 2004). Teachers may take action in giving students support by providing individual care, attention, and help to students (Lee, Smith, Perry,& Smylie, 1999), because teachers always see and interact with students in class. Teachers can observe and notice abnormalities in students during teaching process. Jones (2008) states that out-of-class support is as important as in-classroom support. Students will be more satisfied if teachers provide them out-of-class support. Moreover, teachers can use this kind of support to help students cope with stress they face during their academic lives (Jones, 2008).

Measurements of Teacher Support

Teacher support scale has been identified as a sub-scale in perceived social support revised measurement (PSSS-R) (Yildirim, 2004). Yalcin (2011) assessed undergraduate students and the Cronbach's alpha coefficient was revealed as 0.93. Goodwill and caring's scale of McCroskey and Teven (1999) was another questionnaire for assessing teacher support. Bejerano (2014) adapted it by using 6 items on a seven-point bipolar scale to evaluate first year college students. The Cronbach's alpha coefficient was reported as 0.81. Metheny, McWhirter, and O'Neil (2008) adapted the teacher support scale with 21 items. The participants were asked to rate on a five-point Likert scale which ranged from strongly agree to strongly disagree. This scale was used to assess high school students with a 0.96 Cronbach's alpha coefficient in Perry, Liu, and Pabian's (2010) study.

Another instrument that seems to be utilized in much research is the what is happening in class scale (WHICH) of Aldridge, Fraser and Huang (1999). This scale consisted of 8 items for assessing support from teachers via communication on a five-point Likert scale ranging from strongly agree to strongly disagree. Moreover, it has been widely used to evaluate students in colleges, universities, and also high schools in many countries. The scale presented high Cronbach's alpha coefficientsof around 0.90 (Afari, Aldridge, Fraser,& Knhine, 2013; Aldridge, Afari,& Fraser, 2013; Fraser, Aldridge,& Adolphe, 2010; Wolf & Fraser, 2008; Kim, Fisher,& Fraser, 2000).

The instrument created by Metheny et al. (2008) was used in this research because this scale capably captures the definition of teacher support in this present research. This measurement needed a few changes to fit the perspective of this study. Some wordings in certain scales were slightly changed to accommodate the participants in this study.

Research Evidence for Teacher Support

The relationship between teacher support and UCB may be indicated from the relationship of perceived supervisory support (PSS) and OCB. According to leader-member exchange theory (LMX) (Liden et al., 1997), teachers can be viewed as supervisors who advise or give students knowledge and also give students support. Moreover, teachers are responsible for assessing students' performance, but instead of getting a salary or bonus, students get grades, which may impact their ability to get a job or to study at a higher level. Ladebo (2008) investigated the relationship of PSS, job satisfaction, and OCB. The author suggested that when employees evaluated leader actions positively, they tended to reward the organization or leader back through OCB. The results revealed that job satisfaction partially mediated the relationship between PSS and OCB. In the university context, it is a fair assumption that students who get support provided by teachers may evaluate this action positively, and are likely to have a good relationship. Hence, students may reward their universities by performing UCB.

H5a: Teacher Support has a positive effect on UCB.

SWB was examined as one consequence of teacher support. Danielson et al. (2009) and Danielson, Breivik, and Wold's (2011) studies examined the role

of teacher support on school satisfaction. The participants were high school students in Norway. Structural equation modeling (SEM) analysis was used to test the causal relationship of variables. The finding revealed a strong relationship between teacher support and school satisfaction in both studies. Yalcin (2011) examined the effect of faculty support in determining life satisfaction of college students. Faculty support in this research reflected support from teachers and peers. The results revealed perceived support from faculty was a statistically significant predictor of life satisfaction. There is more convincing evidence presented in the organizational context. Ladebo (2006) aimed to study the relationship between PSS and job satisfaction. PSS in this research was shaped under social exchange theory. The author indicated that supervisors were agents who were responsible for providing values, scheduling work, and setting performance standards. The relationship between these two units contributed to encouraging employees to achieve higher performance and attitudes. In parallel, the responsibilities of supervisors in this research are likely to be similar to teachers' responsibilities in general. The findings revealed that PSS significantly affected job satisfaction. Accordingly, this may be useful in supporting the causal relationship of teacher support and SWB.

H5b: Teacher Support has a positive effect on SWB.

Research on teacher support and university engagement is limited. Therefore, this relationship was deduced from other contexts such as high school. For instance, according to Chen's (2005) study, the research purpose was to test the model of student perceived academic support among adolescents. Support in this research was assessed in three domains: interpersonal, emotional, and cognitive support. The findings showed that support from teachers as well as peers predicted academic engagement. In addition, Klem and Connell (2004) researched teacher support and school engagement. From the results, the researchers stated that teacher support was important to student engagement in school. Students who perceived teachers as creating a caring, well-structured learning environment in which expectations are high, clear, and fair were more likely to report engagement in school. As well as the finding revealed by Brewster and Bowen (2004). This study was conducted on Latino high school students. The authors illustrated that teachers were an important agent in generating students' school engagement

by providing support. Moreover, Perry et al. (2010) found a significant relationship between teacher support and school engagement as well.

H5c: Teacher Support has a positive effect on University Engagement.

Peer Support

Peer groups are another context of society which impacts students' lives because adolescents spend most of their time with their peers in both academic and leisure time. Peers are another source in societies to socialize students' attitudes, emotions and actions (Steinberg, 1996).

A peer group is defined as a group of people who have similar interests. Thus, some groups may be closer to each other than other groups if students have different interests (Berns, 2010; Rogers, 1962). Peer support is a system of giving and receiving help in terms of respect, shared responsibility, and mutual agreement of what is helpful. This support is about understanding another's situations empathically through the shared experience of emotional psychological pain (Mead, Hilton,& Curtis, 2001). Peer support allows students to establish new social ties with fellow students who are facing the same novel environment and increased academic demands (Mattanah, Ayers, Brand, & Brooks, 2010). Peers can lead to student growth in spiritual emotion. Students can freely express their feelings when they feel fear or anxiety. Moreover, peers are important in teaching students to adapt interpersonal skills in universities and to motivate students to perform acceptably. This idea was confirmed byDuru's (2008) study. The researcher revealed that a high level of social support in universities could provide opportunities for students to interact with others and increase their social connections with social and academic environments that may help them cope with the adjustment process at universities. Henslin (2008) gave an example that if their peers are college-bond and upwardly striving, that is most likely what students will be.

Measurements of Peer Support

The measurements which facilitate support from peers in higher education have been presented in many studies. The sub-scale of the multidimensional scale of perceived social support (MSPSS) investigated by Zimet, Dahlem, Zimet, and Farley (1988) was mostly used to assess undergraduate students' perceived peer support

with 12 items.Students were asked to indicate their perception of peer support from strongly disagree to disagree on a seven-point Likert scale. The Cronbach's alpha coefficientsfrom many studies were presented from 0.87 to 0.90 (Sun et al., 2014; Zhao, Wang,& Kong, 2014; Kong, Zhao,& You, 2012). Another scale was the perceived social support scale revised (PSSS-R) of Yildirim (2004). This scale was used to assess college students on a three-point scale ranging from strongly disagree to strongly agree. This scale consisted of family, friends, and teacher dimensions. The Cronbach's alpha coefficient of friends sub-scale was presented as 0.89 in Yalcin (2011) study. The student academic support scale (SASS) of Thompson and Mazer (2009) was a new scale for measuring peer support in academic aspects. It was comprised of 15 items. Bejerano (2014) employed this scale to assess first year college students on a five-point Likert scale ranging from not at all to every day. The test of reliability revealed a Cronbach's alpha coefficient of 0.90.

The adapted version of Thompson and Mazer's (2009) scale was considered in this study. Although, this scale has not been broadly used, it was likely to be effective because it overarched the meaning of peer support in this research. This scale was adapted by modifying wordings to conform to this research.

Research Evidence for Peer Support

Due to limited studies on UCB, the research evidence to support the relationship between peer support and UCB has not been found. However, the significance of peer support has been revealed. For instance, Jaroenvongrayab (2009) aimed to construct the causal model of sustained volunteerism of undergraduate students, and social support was illustrated as one of the antecedents. Support in this study was comprised of emotional, informational, evaluation, and material support provided by families, peers, teachers, and members in the community. The findings revealed that social support significantly affected sustained volunteerism. This study did not present directly the link between peer support and UCB. However, in considering the meaning of volunteerism, it could be deduced that UCB may be affected by peer support in the same way since they both are behaviors with moral concerns.

H6a: Peer Support has a positive effect on UCB.

The reviews above showed that peer support is crucial in helping students interact well at their universities and also help students to face problems that may occur in those universities. The implications of this concept possibly suggest that peer support would affect happiness of students. For instance, Lee, Srinivasan, Trail, Lewis, and Lopez (2011) examined the role of support on learning outcomes of online undergraduate students. Peer support was stated as a crucial factor which contributed to student satisfaction with their courses and support from peers also created collaborative work. Patterns of peer support were illustrated by students helping each other in academic and non-academic works, students encouraging each other to achieve goals, and students answering the questions. The results revealed that peer support had a positive effect on course satisfaction as predicted.

H6b: Peer Support has a positive effect on SWB.

The importance of social support in academia has been studied and reviewed recently in other aspects. Most of the results showed that social support positively related to good outcomes in academia. Although there has not been much research about peer support and university engagement, some studies may indicate the relationship of these variables. For instance, Mattanah et al. (2010) aimed to determine if peer-led social group support facilitated the adjustment of students making the transition to a large metropolitan university. The results suggested that peer-led intervention programs could positively affect students' social adjustment to universities at a large 4-year institution. The results from this research were consistent with Dennis, Phinney, and Chaiteco (2005). The authors investigated peer support and academic success of freshmen. The results revealed that lack of peer support negatively affected college adjustment. There was convincing evidence in Appleton, Christenson, Kim, and Reschly's (2006) study. The authors created a framework of engagement. Peer support referred to the inspiration of students in learning and also the sharing common school values. This type of support significantly influenced students' sense of belonging, identification with school, and feeling like a member of their school. Also, the qualitative research of Wilcox, Winn, and Fyvie-Gauld (2005) yielded supportive evidence. This study aimed to understand retention in higher education students.

The strong influence of peer support on retention was displayed. The results revealed that in transition to universities, students urgently needed to belong with others. If they could create bonds, they tended not to leave university and did better in their academic work. Moreover, the authors stated that support from peers provided a greater sense of belonging and was helpful when students faced to difficulties. According to the findings, this could signifythat peer support influences engagement because sense of belonging reflects the feeling of engagement. In addition, Jacobs and Dodd (2003) studied the burnout of undergraduate students. Burnout in this research was adapted from the organizational context and defined in three dimensions: emotional exhaustion, depersonalization, and reduced personal accomplishment. The findings revealed that social support negatively correlated with burnout in all three domains and support from peers showed the strongest relationship.

H6c: Peer Support has a positive effect on University Engagement.

In conclusion, social support for students can be provided by many agents such as universities, teachers, and peers because these agents play an important role in students' academiclives. Students with support are typically fulfilled in what they need and tend to perform in a positive way. The convincing evidence indicated above presumably illustrated that support from significant agents positively influences SWB, university engagement, and also UCB.

Learner-Centered Teaching

Learner-centered teaching was highlighted in this research due to the problematic situation in classroom. Students nowadays are less prepared for coursework. Moreover, they make responsible and learning decisions less compared to students in the past. In other words, they lack basic skills and confidence as learners (Weimer, 2002). The best approach that may help shape students and develop their abilities is creating learner-centered classrooms. Also, this type of classroom typically facilitates students in learning; they are possibly more engaged and experience less stress. This type of classroom may increase desirable traits and interests of students, which may possibly increase a sense of obligation to their universities.

A learner-centered classroom is rooted in the paradigm called learner-centered teaching. It involves introducing students to knowledge and learning practices and techniques that will make students into lifelong learners. This paradigm encourages students to gain knowledge through gathering and synthesizing information. Students learn to improve their potential for learning by developing their critical thinking, communication, and problem-solving skills (Huba & Freed. 2000). Students that adopt these practices are more likely to have success in post-university lives (Wolhlfarthet al., 2008). Furthermore, this type of learning also creates a culture of cooperation, collaboration, and support (Huba & Freed, 2000) which encourage students to get along well with others at universities. In learning-centered teaching, the university still evaluates and grades student work and also evaluates activities in which students are involved. Students learn how to assess their own work and participate in the evaluation of work done by their peers. Taking this into consideration, it is reasonable to assume that students involved with this learning possibly have greater development of their social skills and interact with others at their universities more positively and on a more advance and meaningful level. When faced with problems academically and socially, they have the tools to not just triumph but to excel.

Huba and Freed (2000), examined eight hallmarks of learner-centered teaching which focuses on both students and teachers. For learners, the researchers described how students spend their time in ways that promote learning. Other hallmarks focus on teachers and the activities that they can employ in order to maximize student learning. Finally, learning was viewed as interpersonal activity. The eight hallmarks of learner-centered teaching are shown as follows: (1) learners are actively involved and receive feedback, (2) learners apply knowledge to enduring and emerging issues and problems, (3) learners integrate discipline-based knowledge and general skills, (4) learners understand the characteristics of excellent work, (5) learners become increasingly sophisticated learners and knowers, (6) professors coach and facilitate, intertwining teaching and assessing, (7) professors reveal that they are learners too, and (8) learning is interpersonal, and all learners-students and professors are respected and valued.

It is clear that the learner-centered teaching approach benefits both students and teachers and also improves students' social skills. This is aligned with Weimer (2002), who indicated that, students must accept the responsibility for learning. This involves developing the intellectual maturity, learning skills, and awareness necessary to function as independent, autonomous learners. At the same time, the universities have a responsibility to create and maintain conditions that promote student growth and movement towards autonomy.

Weimer (2002) explained why it is important to create climates for learner-centered teaching. Policies and practices that create climates are crucial in having a positive impact on learning outcomes. Policies and practices that guide students to take the necessary actions if they are to learn well and develop as learners are needed as well. Therefore, teachers are responsible for creating and maintaining climates conducive to learning. Having discussions with students on the first day of class discussions to create sets of conditions and guidelines for learning is a productive idea. Teachers should always encourage and accept feedback gracefully and never be resentful towards students' opinions or act above this important process. Moreover, developing an environment of maturity, mutual respect, and responsibility in the classroom is needed as well. For example, after an exam is complete, students who earned poor scores may be invited to talk individually to the teachers. The teachers have the right and responsibility to question the students about bad performance, but the question should be presented in a way which encourages and helps motivate the students to focus on future. The teachers should clarify what the students' responsibilities are in regard to assignments. This important piece of information is needed to help avoid the climate of control afterward and possible conflict and misunderstandings. Moreover, empowering students to fix problems can create a learner-centered climate effectively. In addition, assessing learner-centered classroom from students' perception is an option to improve teaching procedure because students' perception is a reflection of how successfully a teacher teaches. It benefits teachers or universities to be active in improving teaching skills.

McCombs (1999) stated that students' perceptions should be measured because it may help promote positive relationships between teachars and students, honors students' values, high-ordering thinking, and helps adapt to the individuals level. It can be useful for universities when creating a curriculum or procedure. Therefore, this study intended to assess learner-centered teaching classroom through students' perception.

Measurements of Learner-Centered Teaching

There were two types of the measurement for facilitating learner-centered classrooms consisting of teacher assessment and student self-report. This research perspective was to investigate how students perceive the classroom environment of students study as centered. Hence, the students' self-report scale was discussed. The assessment of learner center practices (ALCP) surveys, which has been widely used, was created by McCombs (1999). The author aimed to evaluate students' perceptions of their teachers' learner-centered practices. The scale consisted of 25 items and reflected four domains as follows:(1) encourages positive relation, (2) honors student voices, (3) promotes higher order thinking skills, and (4) adapts to individual differences. Students were asked to rate their perception about learner-centered class ranging from zero to ten scores. McCombs, Daniels and Perry (2008), Meece, Herman and McCombs (2003), and Moore (2002) developed this scale to assess high school students. The Cronbach's alpha coefficients were presented from 0.64 to 0.92 in each dimension. In addition, this scale was adapted to evaluate college students as well. Mango and Sembrano (2009) and Mango and Sembrano (2007) reported the Cronbach's alpha coefficient as 0.99 and 0.94 respectively.

Due to the limited scale for assessing students' perception of learner-centered teaching in classroom, ALCP surveys of McCombs (1999) was examined. The wording of items in the original was modified in order to conform to the definition of learner-centered teaching in this study. Some items in some dimension such as promote positive relations was slightly changed in order to make sure it does not overlap another variable in this research.

Research Evidence for Learner-Centered Teaching

This teaching style helps promote critical thinking in students and assists them in becoming life-long learners. Smimou and Dahl (2012) used a qualitative technique to investigate what represented quality of teaching. In this research, teaching quality had many attributes, such as centered on learning and interaction with students. The authors suggested that when student perceived the quality of teaching, they would feel satisfied. According to the results, it could be deduced that perceived learner-centered teaching influenced students' satisfaction as well. There was convincing evidence on quantitative research of Kongthanaitthi (2011). The author aimed to examine the causal model of undergraduates' SWB under the self-determination theory umbrella. In regard to the model, perceived positive feedback was one of antecedent variables. Positive feedback in this study referred to the suggestions or compliments from teachers which was consistent with the hallmarks of learner-centered classroom by Huba and Freed (2000). The results revealed that this variable had a positive effect on SWB. In addition, the results of Wongsupaluk, Sirisophon, and Suksawang (2014) presumably provided supportive evidence. The authors aimed to investigate the causal model of happiness among nursing science students. Student-centered learning was demonstrated as an antecedent and defined as the learning technique that encourages students to participate in learning, to work with peers to integrate knowledge, and to practically apply in students' lives. The results indicated that student-centered learning significantly affected the happiness of students.

H7a: Learner-Centered Teaching has a positive effect on SWB.

Stephenson, Peritore, Webber, and Kurzynske (2013) created a sport nutrition course based on the learner-centered teaching paradigm for university students. The results revealed that at the end of the course, students reported that their project planning, team building, interpersonal communication, and profession proposal skills were all enhanced through their experience. They recognized that solving problems in a group was an effective way to learn, and that group decisions are often better than individual decisions. According to this perspective, it could be deduced that a learner-centered classroom motivates student to participate more with their surroundings, and it could affect

students to create a sense of obligation. In addition, Umbach and Wawrzynski (2005) examined the role of college faculty in student learning and engagement. The authors indicated course-related interaction and active and collaborative learning activities were likely to be positively related to student engagement. Moreover, the researchers provided the information that students who are taught with active and collaborative learning techniques reported greater gains in personal social development, general education knowledge, and practical competences on campus.

H7b: Learner-Centered Teaching has a positive effect on University Engagement.

In conclusion, learner-centered teaching is a procedure created by universities and teachers, which associates with students' behaviors. Therefore, increasing understanding of learner-centered teaching through the students' perspective was considered. Although, the evidence indicating a relationship between perceived learner-centered teaching and outcomes may not yet be obvious; in looking at the supportive evidence above, learner-centered teaching is an active teaching technique which could contribute students to be active in learning. This paradigm typically leads students to gain their skills in both social and academic. Moreover, the activities during an active class also encourage students to participate more in their environment, which could generate a sense of belonging. Of course, students with high skills possibly achieve their goals and feel satisfy with their academic lives. Therefore, this research deduced the idea that the learner-center classroom could generate SWB and university engagement in students.

Ethical Climate

This research focused on ethical climate as an independent variable. Climate,in general,is a factor that demonstrates a view of the universities from the students' perceptions. Climate is advantageous to the universities in that it is associated with policies or procedures that are adaptable.

Ethical climate in university context was drawn from ethical climate approach in organizational context. Generally, climate is an organizational concept that is defined as members' shared perception of and the meaning attached to the politics, practices, and procedures, both formal and informal. Members are bound to develop collective perceptions and are taught to feel and think similarly by shared basic assumptions, values

and beliefs which they learn from others (Schneider, Ehrhart,& Macey, 2013; Reichers & Schneider, 1990; Schneider, 1975). Therefore, climate is generated from and sustained by organizational practices and represents members' generalizations about their organization (Koerschen, 1987).

Researchers who studied climate generally investigated specific work climate types such as innovation, creativity, and warmth, or focused on a broader prospective of climates (Martin & Cullen, 2006). This research considered a specific type of climate called ethical climate. The primary reason for choosing to focus on ethical climate was that it relates to moral behavior.

Ethical climate is a climate type with an ethical basis and is a perception of members about what generates right behavior. In other words, members will perform based on organizational values. Moreover, this climate reflects the organizational procedures, policies and also practices with moral outcomes (Martin & Cullen, 2006). Accordingly, if students perceive a high level of ethical climate in their universities, they tend to realize that all agents at their universities provide them with hope, and it would increase their happiness and engagement, which may indirectly affect UCB.

According to Victor and Cullen (1988), types of ethical climate are classifications of organizations and are investigated from two approaches that consist of the ethical philosophy approach and the sociological theories of roles and reference groups. Under the ethical philosophy approach, three constructs are considered. First, egoism refers to a behavior that is concerned with self-interest. The other two are the behaviors that are concerned with well-being. A utilitarian (benevolent) is what individuals seek to accomplish. This is attempted by making decisions and taking actions that aim to result in the greatest positive outcomes for the greatest number of people. The final construct, the deontology (principle), is described as rules, laws, codes, and procedures specifically for the good of others. In organizations with benevolent climate, employees are mainly concerned with others' well-being in identifying and solving problems. In a principle climate, the solutions may be based on rules or law, while self-interest is the main reason for decision makings regarding employees in egoistic climate.

Under the sociological theory umbrella, the researchers view ethical climate as a unit of analysis consisting of three types as follows: (1) the individual, (2) local locus, and (3) cosmopolitan locus. The individual refers to the individual itself. The local locus refers to the organizations themselves. The cosmopolitan locus refers to things external from the organizations,such ascommunities or societies at large. Thus, a 3 x 3 matrix of nine theoretically ethical climate was generated. The theoretical ethical climate type is shown in figure 2.2.

Ethical criteria	Locus of analysis: Individual	local	Cosmopolitan
Egoism	Self-interest	Company profit	Efficiency
Benevolence	Friendship	Team interest	Social responsibility
Principle	Personal morality	Company rules and procedures	Laws and professional codes

Figure 2 Theoretical Ethical Climate Type (Victor & Cullen, 1988)

According to figure 2 the egoism row, considerations of the needs and preferences of one's own self, organizations interest, and the larger social or economic are defined as self-interest, company profit, and efficiency, respectively. The second row is benevolence. Friendship, team Interest and social responsibility are constructed and refer to considerations of the people with reference to organizational membership, organizational collective, and other constituencies outside the organization. The principle row, in personal morality, one is expected in this climate to be guided by personal ethic. Company rules and

procedures are the source of principle that lies within the organization. Laws and professional codes is defined as the source of principles is extraorganizational.

After nine types of ethical climate were examined, Victor and Cullen (1988) were more concerned about the relationships between each dimensions of ethical climate and the wording in the questionnaire, which may measure satisfaction, not perceptions. Thus, nine theoretical types of ethical climate mentioned earlier were factor-analyzed and emerged. The results revealed five common empirical derivatives of ethical climate as shown in figure 2.3.

Ethical theory	Locus of analysis		
	Individual	Local	Cosmopolitan
Egoism	Instrumental		
Benevolence	Caring		
Principle	Independence	Rules	Law and Code

Figure 3 Five Common Empirical Derivatives of Ethical Climate (Victor; &Cullen, 1987, 1988; Neubaum, Mitchell,& Schminke, 2004 Cited in Martin; & Cullen, 2006)

As shown in Figure 3, Martin and Cullen (2006) gave an explanation that instrumental ethical climate is a negative climate in which individuals perceive that self-interest guides behavior, even to the possible detriment of others. One believes that decisions are made that serve the organization's interests or provide personal benefits. Conversely, in a caring ethical climate, individuals perceive that decisions are and should be based on an overarching concern for the well-being of others. They perceive that ethical concern exists for others within the organization, as well as society at large. Independence climate indicates that individuals believe they should act on deeply held, personal and moral convictions to make ethical decisions. Another climate called law and code is based on the perception that the organization supports principled decision-making based on external codes such as the law or professional codes of conduct. The final climate is called rules. It is defined as a company rules and procedures.

Measurement of Ethical Climate

In this study, ethical climate in the organizational context was taken into consideration from the point of view of undergraduate students. Hence, the scale of organizational ethical climate was adapted. The ethical climate questionnaire (ECQ) of Victor and Cullen (1988) appeared to be the most common scale used in many settings and studies and revealed high coefficient reliabilities (Hashis, 2015). For instance, AL-Omari (2013) adapted ECQ scale and emphasized the ethical climate of undergraduate students through perceptions. The author indicated that the purpose of the scale was to assess the perception of climate, not the feeling of students about the climate. The original scale consisted of five dimensions that were integrated from egoistic, deontological, and utilitarian in three levels: individual, local, and cosmopolitan, as reviewed above. The scale was comprised of 26 items with five subscales: (1) instrumental, (2) caring, (3) independence, (4) professional law and code, and (5) rules. However, AL-Omari (2013) switched the scale back to three dimensions, and the scale was examined for validity by the experts in educational field and tested. The final scale consisted of 24 items and was used to assess students on a five-point Likert scale ranging from strongly disagree to strongly agree. The Cronbach's alpha coefficients ranged from 0.72 to 0.91. Yener, Yaldiran, and Ergun (2012) also developed ECQ scale by using exploratory factor analysis. The results yielded ethical climate in three dimensions that were named social responsibility, rules and professional codes, and personal morality and codes. The scale was presented as having 14 items, and the participants were asked to rate on a six-point Likert scale ranging from strongly disagree to strongly agree. The findings revealedthe Cronbach's alpha coefficients of 0.77 to 0.84.

This study aimed to measure ethical climate as a climate the members in organization are morally concerned about others in one dimension. Therefore, the adaptedECQ scale of AL-Omari (2013) and the original ECQ scale of Victor and Cullen (1988) were adapted. Sub-scales were merged and the wordings of items were slightly changed in order to fit the participants because the original scale of Victor and Cullen (1988) was intended for employees.

Research Evidence for Ethical Climate

Ethical climate has been mostly studied in organizations, especially the occupation with moral concern such as nursing. Indeed, the ethical climate is crucial in academic organization as well, since undergraduate students are in the transition to be an adult. Cultivating morals in students may influence them to be a better person. Due to the inadequacy of ethical climate's studies in the university context, the consequences of this variable were mostly implied from organizational context.

There was convincing evidence indicated the importance of ethical climate as follows. Hashish (2015) investigated the relationship between ethical climate and consequences such as job satisfaction and POS. The researcher suggested that enhancement of ethical climate possibly related to the degree of POS. Ethical climate in this research was studied in five dimensions, including instrumental, caring, independence, professional law and code, and rules. The results revealed that perceived overall ethical climate had a strong relationship with job satisfaction and POS. Elci and Alpkan (2008) examined the effect of nine types of ethical climate on work satisfaction. Work satisfaction in this research was defined as the states of pleasurable or positive emotion which was the result from the individuals' evaluation about their job or job experience. The findings showed both negative and positive relationships. That is, self-interest type negatively affected work satisfaction, whereas team interest, social responsibility and law and professional type had a positive effect on work satisfaction. Charles and Schwepker (2001) studied about the effect of ethical climate on job satisfaction among employees. This assumption was drawn under the viewpoint that ambiguities occurred in organizations could be eliminated by ethical climate because this climate fostered honesty and trust. The result revealed that ethical climate positively affected job satisfaction as predicted.

H8a: Ethical Climate has a positive effect on SWB.

In academia, there were some researchers adapting ethical climate to study it in this context. The study that has shown an importance of ethical climate in college is Schulte, Thompson, Hayes, Noble, and Ellen's (2001) study. This research examined faculty and student perceptions of the ethical climate of a college of education. Researchers suggested that both faculty members and students perceived that the ethical

climate is important as a very effective factor in the retention of students within undergraduate academic programs. This could signify that ethical climate typically influences engagement as well. In addition, the supporting evidence was also found in organizational context. Taghipour and Dezfuli (2013) investigated the antecedents of work engagement. One of the antecedences was defined as moral climate, which was drawn from the ethical climate concept. The result suggested that moral climate was a significant antecedent of work engagement. Yener et al. (2012) examined the relationship between ethical climate and work engagement. Ethical climate was adapted from Victor and Cullen (1988) and was categorized into three dimensions including social responsibility, rules and professional codes, and personal morality and Interest, whereas work engagement contained three domains from Schaufeli et al. (2002a) including vigor, dedication, and absorption. The results revealed a positive effect of ethical climate on work engagement. Since one dimension of engagement includes the sense of belonging, Deconinck's (2011) research was found to be useful. The author studied ethical climate and organizational identification among salespeople. Organizational identification was defined as a perception of belongingness. The finding indicated that ethical climate had a positive effect on organizational identification.

H8b: Ethical Climate has a positive effect on University Engagement.

Since the research on ethical climate in classroom is limited, the relationship between ethical climate and SU fit was deduced from organizational context. According to Ruiz-Palomino, Marinez-Canas, and Fontrodona's (2013) study, the research purpose was to examine the relationship of ethical culture and employees outcomes, such as job satisfaction, by having PO fit as a mediator. Although this research paid attention to ethical culture, the researchers suggested that both ethical climate and ethical culture measurements were strongly related. The finding confirmed the effect of ethical culture on job satisfaction, and PO fit was found as a mediator between both variables. Lopez, Babin, and Chung (2009) explored the effect of ethical climate on PO fit. Ethical climate was defined as observed appropriate actions in workplace and also policies. The authors suggested that when a mismatch between members and organization occurs, individuals often adjust their values or seek another environment that better matches them. Therefore,

there was a possibility that ethical climate would relate to PO fit and the finding confirmed that ethical climate positively affected PO fit as predicted.

H8c: Ethical Climate has a positive effect on SU Fit.

The finding from Hashish (2015) strengthened the relationship of ethical climate and support from organizations. To strengthej the premise that ethical climate may affect perceived support from other agents, there was convincing evidence presented by Valentine, Greller, and Richtermeyer (2006). The authors suggested that ethical environment lead individuals to properly perform with a sense of integrity. Therefore, the organizations that enhance ethical values and allow members to act with honesty should be perceived as more supportive. That is, the organizations with ethical concern typically help all agents to perceive support from each other as well as in universities. If universities provide the ethical climate, students are possibly freely to act honestly toward universities, teachers and also peers which create the inference that they possibly perceive support from all agents in universities as well. Climate seems to be an essential determinant that influences individuals in both cognition and behaviors.

H8d: Ethical Climate has a positive effect on University Support.

H8e: Ethical Climate has a positive effect on Teacher Support.

H8f: Ethical Climate has a positive effect on Peer Support.

In conclusion, this research was intended to prove the continuum of ethical climate in universities. Ethical climate is the climate that students perceive at large. In other words, climate can be experienced from universities as a whole. Students who perceive ethical climate perhaps positively perform and are more understanding in what universities and teachers try to provide them. They possibly perceive support from all members in universities and this may lead to their engagement and happiness, bothdirectly and indirectly. Also, when students are happy and engaged, they typically exhibit UCB as reviewed above. Thus, ethical climate was selected.

Thai and U.S. Classroom Characteristics

Educational systems are highly influenced by and developed from each country's individual culture. Hofstede (2001) studied the value patterns of many countries. The findings indicated that Thai culture indicates large power distance, low individualism, strong

uncertainty avoidance, and femininity. U.S. culture illustrates smaller power distance, high individualism, weak uncertainly avoidance, and masculinity. In general, in Thai culture, high-powered people are respected and group desires are important. They are also intolerant of unclear situations and lack of ambition. U.S. culture, on the other hand, tends to show the opposite of Thai culture in many of these patterns.

The cultural differences from Hofstede, Hofstede, and Minkov's (2010) study may explain the different results in the model of UCB in this research. For instance, SWB and SU fit may be affected by uncertainty avoidance domain because students in strong uncertainty avoidance cultures are more intolerant and are often nervous in situations. University engagement may illustrate the differences from the uncertainty avoidance domain as well because students with intolerance may not engage in their university as much. Moreover, masculinity and femininity domains can influence how students engage at their universities because students in masculine cultures are more assertive and competitive. Learner-centered teaching may be viewed through the power distance domain because in cultures with large power distance, students may not seek out teachers for consultations and may also feel uncomfortable if teachers are involved directly with them. University support, teacher support and peer support may be affected by masculine and feminine cultures because these two cultures expect different actions from people in society. A feminine culture is more concerned with interpersonal relationships. Moreover, individualist cultural characteristics could explain how students are integrated. It could be implied that students from a collectivist culture are more close to each other and tend to support each other on the same level more. Finally, ethical climate could be explained by the power distance domain because this climate focuses on how students perceive that ethics exists in their university. Students in smaller power distance culture are likely to perceive a more ethical climate because they accept inequality in power and consider it as normal.

Turning attention to learning characteristics, this study intended to focus on Thai and U.S. classrooms. A large culture, in general, influences sub-culture in society. Thus, learning characteristics in each country are perhaps affected by their cultures. The study of Hofstede et al. (2010) about cultural differences between Thai and U.S. cultures was supported by many other studies as follows.

Abundance kf creativity is demonstrated in the U.S. learning style because the U.S. educational system (Western system) allows students to be creative and sets up an environment conducive to students freely voicing their opinions. U.S. classes normally provide students considerably more opportunity to ask questions and to participate in open dialogues with the professor than in Asian classes. U.S. teachers have the freedom to encourage their students to be more creative and imaginative by creating a curriculum based more on essays and discussion than on repetition and memorization techniques commonly used in Asian classrooms (Kim, 2005). U.S. teachers have a right to speak and write outside their area on academic expertise (Shils, 1991).

In U.S. learning institutions, professors and students are more likely to see themselves on the same level(as equals), and therefore students are more comfortable in engaging their professors in honest discussion and open debate and are less intimidated when it comes to approaching professors. U.S. teachers are also more likely to act as advisors than in Asian classrooms. They can suggest or clarify solutions in practice, and students are able to consult when they face problems inside and outside of the classroom (Kim, 2005).

In considering the U.S. education style, the lessons students learn efficiently teach them to help improve decision-making skills (Liberman, 1994). This teaching style helps to kindle a greater feeling of self-respect and independence within students. In contrast, Asian teachings mainly instill in students a respect of group norm and culture (Organ et al., 2006; Steward & Bennett, 1991). Empirically, the competences that U.S. students emphasize are cultivation of mind, curiosity, creativity, and personal achievement (Keller, 2003). Personal and social values,to a degree, are a matter of individual choice (Ounjit (Laila), 2012). The aim of teachers is to educate students to understand the world and develop thinking skills (Egmon; & Li 2013).

A responsibility of Thai Universities is to set policy goals for students' personality and social development (Ounjit (Laila), 2012)that is the same as in U.S. universities. However, respecting ones elders comes first in the Thai learning style. Teachers are always respected and never contradicted, which is very different from the U.S. style. In considering these aspects, Thai students rarely respond in class, express descent, openly question, or

voice their opinions to their teachers. Also, teachers are perhaps less likely to encourage students to think differently and independently. These characteristics are partly affected by the fact that teachers have to be the ones who feed the students' knowledge in this learning culture. (Knutson, 1994). To have a student body that agrees with everything a professor or curriculum teaches is typically not a sign of a healthy education system. According to prior research into Thai education, much research has aimed to develop teaching programs because of student's lack of learning skills (Kasinant, 2012; Nualpang, 2011).

Furthermore, Asian parents emphasize to their children the importance of studying hard and focusing on habits helpful to attaining academic success, such as attending class and helping with studies by sitting with their children while doing homework (Kim, 2005). In other words, social support considerably influences students' lifestyles and freedom. In many East Asian countries including Thailand, to be successful in learning, students must memorize and repeat knowledge and lessons they get from teachers without applying any practical processes. The grades students receive are based solely on how well they memorize and are able to parrot back information. The students' understanding of the material is often disregarded, and this can be detrimental when it comes to encouraging the growth of and application of critical thinking skills. This learning style is not conducive to creative growth, independent thought, or self-expression (Kim, 2005).

The aim of a Thai student's studies is to increase their social position and raise their eventual earning potential. Thai education is based almost solely on grades and hardly emphasizes living and learning skills. Although Thai universities provide well-educated teachers, they typically have trouble convincing students to focus on practice orwhat they are learning and how it will benefit them and help them grow,rather than paying attention to grades.

It appeared that cultural differences investigated by Hofstede et al. (2010) supported what was presented through learning in classrooms of both cultures. These differences may affect the relationship between variables and also the level of each variable in this current study reported by students from both countries. Thus, cultural differences were considered and discussed.

Research Evidence for Cultural Differences

A large number of studies have focused on the cultural differences of Eastern and Western countries. The basic premise that the researchers highlighted is cultural values. As noted earlier, individualism is more representative of western culture and eastern culture is more associated with collectivism. Park and Huebner (2005) examined the perception of students regarding levels and correlates of life satisfaction among Korean and U.S. schools. The results revealed the differences of levels and correlates. That is, satisfaction with school significantly contributed to global life satisfaction for Korean students,whereas global life satisfaction of U.S. students more related with satisfaction with self. In addition, U.S. students reported a higher level of life satisfaction than Korean students. According to the findings, the authors suggested that value differences in individualism and collectivism were the causes. Similar to Marambe, Vermunt, and Boshizen's (2012) study, this research aimed to compare the patterns of student learning among Asian and European countries. The results revealed differences in many aspects. For instance, the Asian country Sri Lanka reported lower scores on critical processing and memorizing but higher scores on concrete processing, self-regulation, and lack of regulation than Dutch students.

An example of comparative cross-cultural studies between Thai and U.S. students was presented in Knutson, Komoksevin, Chatiketu; & Smaith's (2003) study. This study examined the rhetorical sensitivity between Thai and U.S. students in order to investigate the communication effectiveness. The authors indicated that Thai and U.S. cultures were different in terms of high-context (collectivistic) and low context (individualistic). Thai culture emphasized social harmony and selflessness, whereas U.S. culture reflected self-realization and the domination of nature. According to the cultural differences, it could be deduced that Thai people would present high levels of rhetorical sensitivity because Thai culture values interpersonal relationships. The Thai language is concerned with the importance of social harmony and level. Younger people have to communicate by choosing certain words in order to show their respect to elders. This type of social culture influences Thai students to be quiet, rarely raise any ideas, and ask any questions in class. In other words, the term respect social harmony sometimes means obeying teachers or elders. The reason provided to support the hypothesis that Thai and U.S. students would present different attributes is

likely to be accurate. Unfortunately, the results revealed that U.S. students illustrated higher social harmony than Thai students. The authors explained that this might be due to bias from the items in questionnaires or the social norm. The majority of the statements in items measuring rhetorical sensitivity demonstrated a sense of conflict, disagreement, argument, or difficult situations. It is possible that Thai students try to avoid social conflict and expectpeople to be mild and modest by rating along with what is socially expected.

H9: The causal model of UCB is not equivalent across Thai and U.S. groups.

The universities selected for this research were one university in Thailand and two universities in the U.S. They were selected based on the visions of the universities. The philosophy of the Thai university is about growth in education. The five growth aspects at this university are comprised of:growth of faith; growth of sacred precepts; growth of attentiveness; growth of abandonment;and growth of wisdom. Additionally, a significant mission of the Thai university is to generate personnel development with quality and virtue for society through the learning process and a learning society. In other words, this university is not just an institution providing knowledge; it also gives priority to cultivating students to have morals and to be concerned about their society. Moreover, this university encourages students to focus on having service-minded identities. Because of its philosophy, mission, and students' identities, this university was selected. Turning attention to the U.S. universities, the visions ofthese institutions are to serve their region, state, nation, and world through their commitment to responsible stewardship, meaningful civic engagement, cultural enrichment, and the development of global citizens. A significant value of these universities is focused on civic engagement. The universities' goals are to prepare students to be informed and engaged global citizens who will promote and further the goals of society. They promote active learning experiences through which students will gain an awareness and understanding of civic engagement as a lifelong responsibility.

The visions of the universities selectedfrom both countries provide insightful information about creating and generating students' positive outcomes such as helping people in society or being a good citizen, aligned with providing a high quality of education. That is, these universities have similarities which relate to the objectives of this research in investigating UCB in students.

In conclusion, the literature review indicated that culture is an important determinant in cultivating people in each society. Thai and U.S. cultures carry distinct properties such as students' characteristics and classroom environments, which perhaps influence how students behave in an academic setting. Thus, the presumption that the differences in cultures influence different outcomes was deduced.

Conceptual Framework

The goal of the second phase of this research was to study a causal model of UCB among Thai and U.S. students. According to the reviews, since the prior research on UCB is limited, the method selected to create a causal model of UCB was to adapt the framework of social exchange theory (Blau, 1964) and OCB (Organ et al., 2006; Podsakoff et al., 2000).This was done in order to select variables which typically affect UCB both directly and indirectly. The variables selected are presented as follows. Psychological variables including SWB, university engagement, and SU fit were considered. The environment variables selected were university support, teacher support, peer support, learner-centered teaching, and ethical climate. The conceptual framework is shown in figure 2.4, and the hypothesized model is shown in figure 2.5.

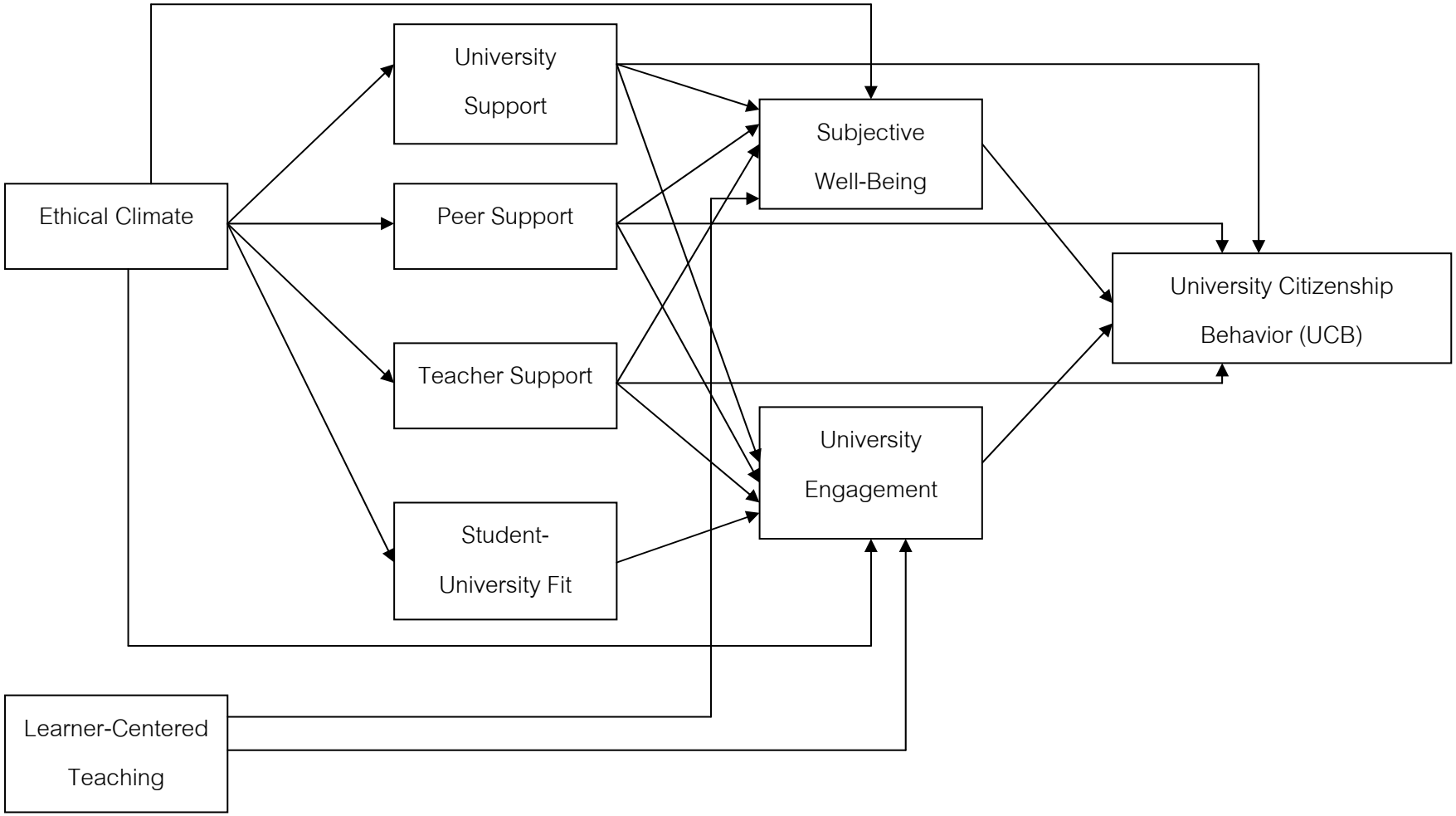


Figure 4 Conceptual Framework

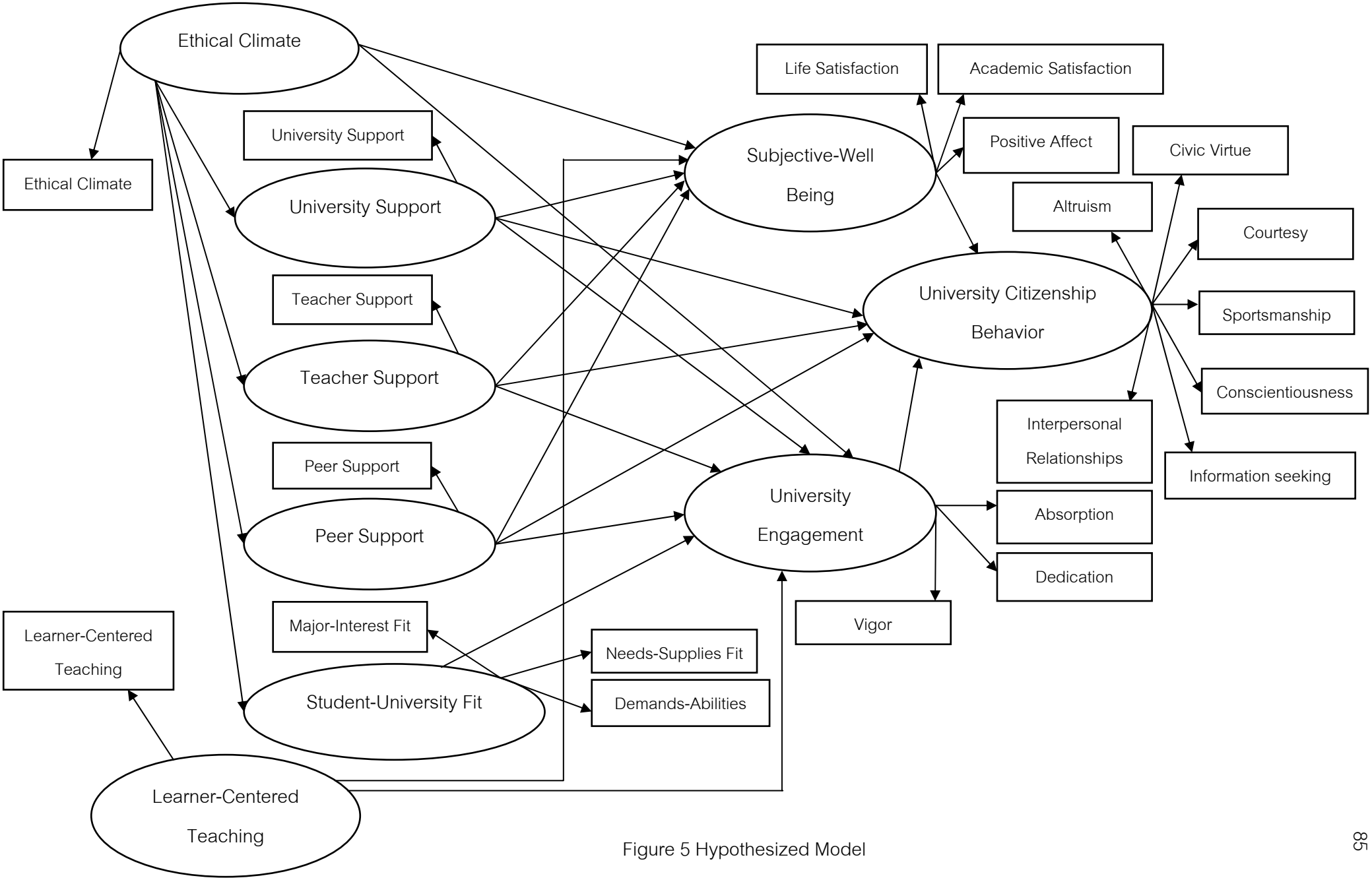


Figure 5 Hypothesized Model

CHAPTER 3
METHODOLOGY

This study applied the exploratory sequential mixed-methods design and was comprised of two phases. The purpose of the first phase was to develop the dimensions, definition, and investigate behavioral indicators of UCB by using a qualitative method in order to create a developed scale for university citizenship behavior (UCB). The developed scale was then tested for quality by using a quantitative method. The second phase of this study was a quantitative phase. In this phase, structural equation modeling (SEM) was used to test the causal model of UCB among Thai and U.S. students followed by testing fordifferences between both the groups. This section describes the methodology, the design, and the details of each phase of this research as follows.

Design

The design of this study was developed from the exploratory sequential mixed-methods design of Creswell and Clark (2007). Mixed-methods design is a technique of collecting, combining, or integrating qualitative and quantitative research and data in a single study or series of studies (Creswell, 2014; Creswell & Clark, 2007). The significant advantageof this approach is that using both qualitative and quantitative methods provides a better understanding of research problems than using only one approach. Exploratory sequential design is one approach of mixed-methods design. This design allows the researcher to use results from the first method (qualitative) to help develop or inform the second method (quantitative). The main purpose of this design is to explore the measurement or instrumentof the variables when it is inadequate, unclear, or unknown. This design is useful because it ensures that the development of the measurement from specific samples of populations from a qualitative method can be generalized to large samples of populations by using aquantitative method to confirm (Creswell, 2014).

The exploratory sequential mixed-methods design was chosen as the most suitable method to use in this research because the definition of UCB has not been made explicit and the current measurements of UCB are potentially inadequate. This design can help

develop the dimensions, definition, and investigate the behavioral indicators of UCB by using a qualitative method. The generalization of the scale is tested by using a quantitative method to ensure that the developed scale is reliable and valid. This research also included a second phase that aimed to test the causal model of UCB among Thai and U.S. students, followed by testing the differences between both groups.

To compare the differences of the causal model of UCB betweenthe Thai and U.S. student groups, comparative cross-cultural perspective was consideredbecause it is a specific method that focuses on the comparison of cultural patterns between cultures (Olatundun, 2009). In the field of education, comparative cross-cultural study is concerned with persons, groups, or institutions that are associated with teaching or learning in two or more educational contexts and aim to discover how and why these contexts are alike and different (Thomas, 1998). In considering the Thai and U.S. classrooms mentioned in chapter two, they are explicitly different in many aspects. Two major differences are student characteristics and classroom environments. Therefore, it is a fair assumption that the results from phase two of this study on Thai and U.S. student groups may be distinct and could be explained by cultural differences.

In conclusion, this research was comprised of two phases. The first phase began with a qualitative method that aimed to conceptualize a developed definition of UCB by interviewing experts from Thailand and the U.S.This was followed by interviewing students from Thailand and the U.S. in order to elicit the behavioral indicators and dimensions for creating a developed scale for UCB. After the developed scale was created, it was validated by using a quantitative method. For the second phase, the causal model of UCB was tested by using SEM. The model was assessed on Thai and U.S. students. Then, the invariance between these two groups was considered. The framework is shown in Figure 3.1.

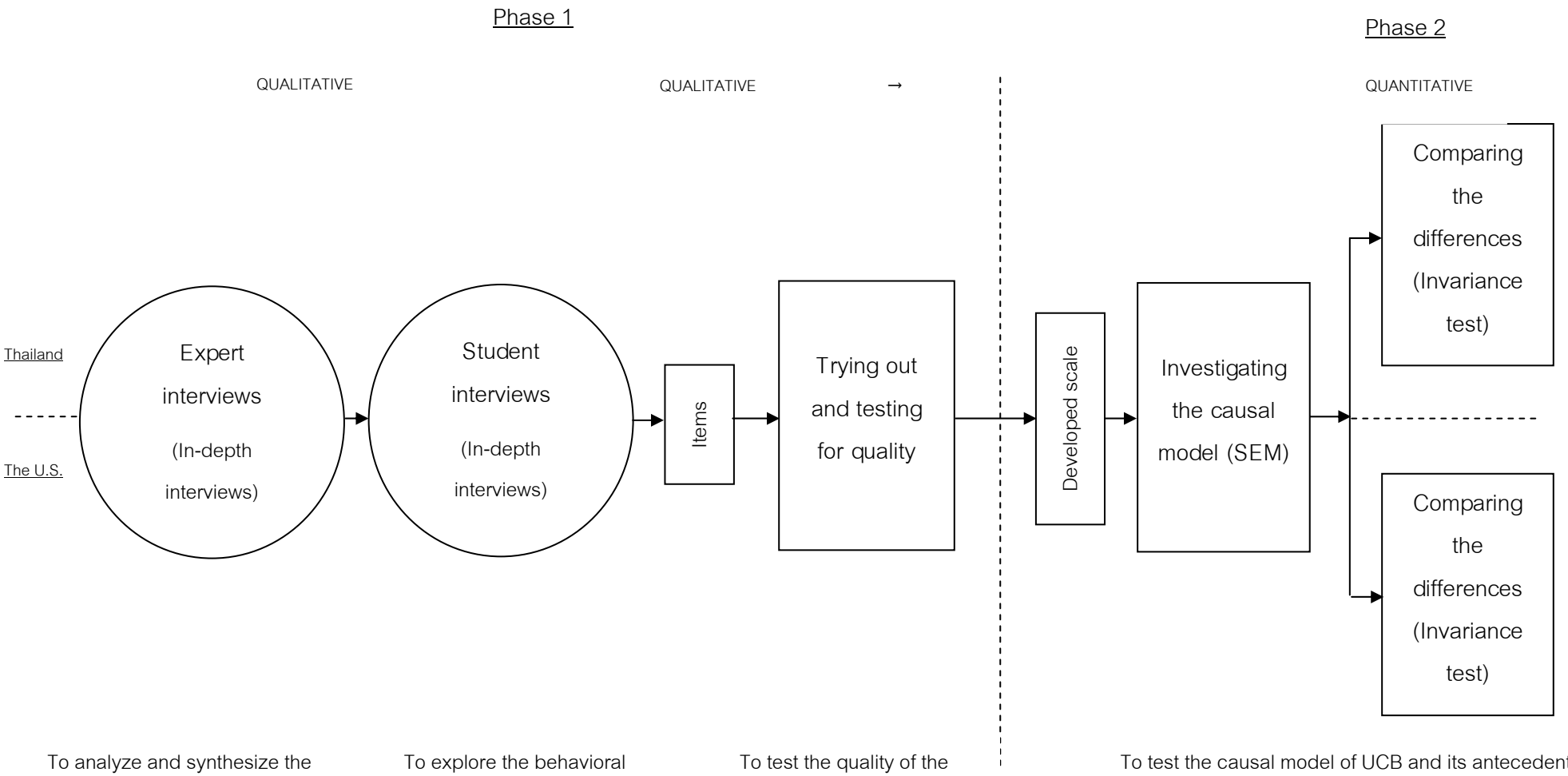


Figure 6 Research Framework

(Exploratory Sequential Mixed-Methods Design

Adapted From Creswell and Clark (2007))

The details for each phase of this study as shown in figure 3.1 are presented in the following sections.

Phase 1

Key Informants

This phase included participants in two separate groups. To examine how to adapt organizational citizenship behavior (OCB) to the university context, an in-depth interview technique was used to gather data from six experts, including three experts from Thailand and three experts from the U.S. The experts selected were educators who have worked in fields involving student activities, have knowledge about industrial organizational psychology (I-O psychology), have knowledge and experience in OCB, or have published research related to the studied variables. The second group was 12 students from Thailand and the U.S. They included five Thai students who were enrolled at a Thai university and seven U.S. students who were enrolled at university in the U.S. Both universities are known for their strong education programs. The students chosen for the interview ranged from freshmen to seniors and were all actively engaged in volunteer groups, participated in out-of-class activities without compulsion, and were recommended by teachers to contribute to this study. To protect the confidentiality of key informants, they were coded anonymously.

Procedure

The major goal of this phase was to develop the dimensions, definition, and behavioral indicators of UCB in order to create a developed scale for UCB. The procedure of phase one of this study is presented as follows.

1. The OCB concept was reviewed in order to understand the concept, meaning, and dimensions of this variable. This was followed by examining OCB studies previously performed on students at university and school settings. This was done to help gather information and as primary data for developing a UCB construct.

2. A qualitative technique was used to collect data by using in-depth interview technique on experts in the field independently and anonymously to avoid bias. The experts were provided a theoretical review of UCB one week before the interviews. The semi-structured questionnaire included open-ended questions, arranged in a reasonably logical

order, and covering the basis required (Richards & Morse, 2013).The questions, which were used when interviewing the experts, are shown as follows.

- What are some similarities and differences between organization and university contexts?
- Can you suggest how to adapt OCB to be used in the university setting to measure students and what factors should the researcher be aware of?
- Do you have any suggestions for applying OCB to the university context?
- What behaviors represent UCB?
- What should be included as dimensions of UCB?
- What is the definition of UCB in your opinion?

3. The data gathered from the experts were summarized.

4. The accuracy of the data was tested with the member checking method by sending drafts of the interviews to the expert for correction comments (Stake, 2010).

5. A preliminary proposed definition of UCB was revised and conceptualized by integrating data from both literature reviews and from the interviews. These data were used as a guideline to create a semi-structured questionnaire for student in-depth interviews. The semi-structured questionnaire included open-ended questions, arranged in a reasonably logical order, and covering the basis required (Richards & Morse, 2013). The questions in the semi-structured questionnaire are presented as follows.

- Do you think you are a good citizen of your university? If you think you are, why?
- What extra activities or behaviors do you serve your university with and without compulsion?
- When talking about UCB, what are the activities or behaviors that come to mind?
- What are the activities and behavioral indicators in each dimension of UCB?
- Can you think of something else concerned with UCB that should be included?

6. A provisional start list code for students' in-depth interviews based on literature review and expert interview findings was created. This was helpful in further data analysis (Miles & Huberman, 1994).

7. The in-depth interview technique was used to interview Thai and U.S. students. The triangulation method by using data source was examined during the interview process to confirm the data accuracy (Miles & Huberman, 1994).

8. The data collected from the student interviews were summarized.

9. The data gathered from the student interviews were then tested for accuracy by using a member checking method. The drafts of the interviews were sent to the students for correction comments (Stake, 2010).

10. The Triangulation method was used to confirm the findings. The researcher checked for accuracy of the data with the key informant's peers or teachers. (Miles & Huberman, 1994).

11. The main ideas or significant data gathered from the interviews were analyzed. The constant comparative analysis method (CCA) was adapted for this purpose. The gathered data were coded. Then, the code was compared with other codes for similarities and differences. The codes were grouped together by using higher-level descriptive concepts if they conceptually reflected the same main idea (Strauss & Corbin, 2008; Saldana, 2009).

12. The developed construct of UCB was investigated with dimensions and a final newly-proposed definition.

13. The results were double checked with another expert in the field (Miles & Huberman, 1994) to confirm the reliability of the data analysis.

14. Thedeveloped scale of UCB was created and tested for reliability. The statement in each of these items was straightforward, fair, and thoughtful. The procedure is as follows.

- Possible items which represented a developed UCB construct were noted.

- These items were reviewed by experts in the field and tested for content validity. The index of item-objective congruence (IOC) of Rovinelli and Hambleton (1977) was also examined for reliability.
- All items were revised according to the experts' recommendations.
- A back-translation technique was used in this stage to identify differences indicating ambiguous wording in the questionnaire. The first bilingual specialist translated all items from the original English version into Thai. Then, a second independent bilingual specialist translated the Thai version produced by the first translator back into English. A third bilingual specialist reviewed the second translation to ensure that it was equivalent to the original one (Beaton, Bombardier, Guillemin,& Ferraz, 1998).
- The two versions of the developed scale for UCB in Thai and Englishwere tested on students in Thailand and the U.S. The samples were chosen from a group of students who were close to the targeted population. Students were asked to rate their UCB on a five-point Likert scale ranging from 1 = not true at all to 5 = extremely true.
- Reliability was tested to validate the final UCB scale.
- Confirmatory factor analysis (CFA) was conducted to confirm all dimensions for UCB. The results of this analysis were presented as a part of theSEMin phase two.

Phase 2

Population and Samples

The population of this study included both Thai and U.S. undergraduate students. Firstly, education majors were selected based on the premise that teacher education students are responsible for their surroundings due to their future careers. Thus, they typically exhibit UCB the most. Secondly, three universities known for their strong education programs were selected based on the visions of their universities. The participants were categorized into two separate groups. The first group consisted of undergraduate students from one university in Thailand, and the second group was comprised of undergraduate students from two universities in the U.S. The samples were drawn by using the random sampling technique. At each university, the data were collected from freshmen,

sophomores, juniors, seniors, and super seniors. Super seniors were only associated with the Thai university because the education program at the selected Thai university requires five years of study.

The participants were 623 undergraduate students, including 323 Thai undergraduate students from the Thai university and 300 U.S. undergraduate students from the U.S. universities. According to Kline (2005), for SEM analysis, an ideal sample size-to-parameter ratio will be 20:1 or at least 10:1. Due to the parameters studied in this research, an adequate size for using SEM was at least 620 students. Thus, the samples in this study were adequate.

Procedure

The main purpose of this phase was to test the causal model of UCB and to compare the differences of this model between Thai and U.S. student groups. The procedure is as follows.

1. The causal model of UCB and its antecedents were created by using theoretical review.
2. The data were collected from Thai and U.S. students using questionnaires directly given out by the researcher.
3. SEM was conducted in order to validate the model of UCB among undergraduate students in both countries by using LISREL program version 8.72.
4. An invariance test of the model of UCB was conducted in order to investigate the differences between the Thai and U.S. student groups.

Measurements

1. University citizenship behavior (UCB) The scale of UCB was developed from the first phase of this study. The developed scale aimed to measure the seven dimensions of UCB in undergraduate students by using a five-point Likert scale ranging from 1 = not true at all to 5 = extremely true. The questionnaire included 30 items after conducting CFA. The seven dimensions of UCB included altruism, civic virtue, conscientiousness, courtesy, sportsmanship, information seeking, and interpersonal relationships, with aCronbach's alpha coefficient of 0.91.

1.1 I give time to help friends when I see that they are struggling.

(altruism)

extremely true	true	neutral	not true	not true at all

1.2 I instill my actions at this university with a positive attitude.

(civic Virtue)

extremely true	true	neutral	not true	not true at all

1.3 When people from outside my university ask me about my university
I always focus on positive aspects and try to give them accurate information.

(conscientiousness)

extremely true	true	neutral	not true	not true at all

1.4 I am mindful of how my behavior affects other students' work.

(courtesy)

extremely true	true	neutral	not true	not true at all

1.5 When an inconvenient situation occurs I am patient and take time
before saying anything or taking any actions.

(sportsmanship)

extremely true	true	neutral	not true	not true at all

1.6I listen to other people's ideas and points of view, even if they contradict mine, to help expand my knowledge.

(information seeking)

extremely true	true	neutral	not true	not true at all

1.7I try and make connections with organizations both inside and outside of my university.

(interpersonal relationships)

extremely true	true	neutral	not true	not true at all

2. Subjective well-being (SWB) This research developed the questionnaire based on the scales of Diener et al. (1985), Schmitt et al. (2008) and Watson et al. (1988), which measured how students evaluate their lives in three aspects, including life satisfaction, academic satisfaction, and positive affect (PA). For life satisfaction and academic satisfaction, the students were asked to rate if they agreed or disagreed on a five-point Likert scale ranging from 1= strongly disagree to 5 = strongly agree.For PA, the students were asked to rate the frequency of the feelings in each statement on a five-point Likert scale ranging from 1= very slightly or not at all to 5 = extremely. After CFA was assessed, the questionnaire included three dimensions and 20 items with a Cronbach's alpha coefficient of 0.90.

2.1 In most ways my life is close to my ideal.

(life satisfaction)

strongly agree	agree	neutral	disagree	strongly disagree

2.2 For the most part, I am satisfied with the education I can get at this university.

(academic satisfaction)

strongly agree	agree	neutral	disagree	stroncly disagree

2.3 In general, Do you always feel interested?

(PA)

extremely	quite a bit	moderately	a little	very slightly or not at all

3. University engagement This research adapted the engagement questionnaire of Schaufeli et al. (2002b) to measure undergraduate students with a five-point Likert scale ranging from 1 = strongly disagree to 5 = strong agree. After CFA was evaluated, university engagement was comprised of three domains, including vigor, dedication, and absorption. The questionnaire included 10 items with aCronbach's alpha coefficient of 0.85.

3.1 I feel strong and Vigorous when I'm studying or going to class.

(vigor)

strongly agree	agree	neutral	disagree	strongly disagree

3.2 To me, my studies are challenging.

(dedication)

strongly agree	agree	neutral	disagree	strongly disagree

3.3 I feel that detaching myself from my studies is difficult.

(absorption)

strongly agree	agree	neutral	disagree	strongly disagree

4. Student-university fit (SU fit)The questionnaire for measuring the fit between students and universities was developed from the scale of Li et al. (2002). The results from CFA revealed that this scale was organized within three domains, including interest-major fit, needs-supplies fit, and demands-abilities fit. Students were asked to indicate the degree to which they agreed or disagreed on a five-point Likert scale ranging from 1= strongly disagree to 5 = strongly agree. The questionnaire included eight items with aCronbach's alpha coefficient of 0.81.

4.1 The courses available at this university match my interests.

(interest-majorfit)

_____ _____ _____ _____ _____

strongly agree agree neutral disagree strongly disagree

4.2 There is a good fit between what my schoolwork offers me and what I am looking for in schoolwork.

(needs-supplies fit)

_____ _____ _____ _____ _____

strongly agree agree neutral disagree strongly disagree

4.3 My ability is a good fit for the requirements of my schoolwork.

(demands-abilities fit)

_____ _____ _____ _____ _____

strongly agree agree neutral disagree strongly disagree

5. University support The purpose of this scale was to measure the perception of students in regard to support from their universities. This study adapted the survey of perceived organizational support (SPOS) introduced by Rhoades et al. (2001). Students were asked to rate if they agreed or disagreed on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The questionnaire included five items with aCronbach's alpha coefficient of 0.84 after CFA was conducted.

5.1 My university cares about students' opinions.

strongly agree	agree	neutral	disagree	strojgly disagree

5.2 My university provides enough aids to facilitate the learning process.

strongly agree	agree	neutral	disagree	strongly disagree

6. Teacher support The scale of Metheny et al. (2008) was adapted to measure the perception of students in regard to support from teachers on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The questionnaire included four items with aCronbach's alpha coefficient of 0.67after conducting CFA.

6.1 My teachers are easy to talk to about academic subjects.

strongly agree	agree	neutral	disagree	strongly disagree

6.2 My teachers make me feel that I belong in class.

strongly agree	agree	neutral	disagree	strongly disagree

7. Peer support Thompson and Mazer 's(2009) scale was employed to measure the perception of students in regard to support from their peers on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. After conducting CFA, the questionnaire included six items with aCronbach's alpha coefficient of 0.78.

7.1 My friends help explain to me when I don't understand my lessons.

strongly agree	agree	neutral	disagree	strongly disagree

7.2 My friends give me good advice about living at my university.

strongly agree	agree	neutral	disagree	strongly disagree

8. Learner-centered teachingThis scale was adapted from McCombs's (1999) questionnaire. The students were asked to rate their perceptions on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The questionnaire included four items witha Cronbach's alpha coefficient of 0.82 after CFA was evaluated.

8.1 My teachers help me understand different points of view.

strongly agree	agree	neutral	disagree	strongly disagree

8.2 My teachers encourage me to come up with solutions which will help me understand a lesson.

strongly agree	agree	neutral	disagree	strongly disagree

9. Ethical climate AL-Omari's (2013), and Victor and Cullen's (1988) scales were employed to measure students perceptions of the ethical climate at their universities on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. After CFA was conducted, the questionnaire included four items with a Cronbach's alpha coefficient of 0.70.

9.1 In this university, people look out for each other's good.

strongly agree	agree	neutral	disagree	strongly disagree

9.2 In this university, the major concern of the university procedure is always what is best for all the members.

strongly agree	agree	neutral	disagree	strongly disagree

CHAPTER 4
RESULTS AND DISCUSSION (PHASE 1)

The purpose of the first phase of this research was to develop the dimensions, definition, and to investigate the behavioral indicators of university citizenship behavior (UCB) by using a qualitative method in order to create a developed scale of UCB. The next step of the first phase was to test for the quality of the scale by using a quantitative method.

This research developed the definition of UCB based on organizational citizenship behavior (OCB) by Organ (1988). The basic concepts associated with UCB are the ones where students' behaviors benefit their universities, students will not get punished for not performing these behaviors, students are not forced to perform these behaviors, and these behaviors are not associated with formal school rewards.

This research started with expert interviews. The interviews were analyzed and labeled as the initial findings. The analysis was done to confirm that UCB can be developed from OCB. Next, the students were interviewed. The results from the student interviews were analyzed to develop the dimensions of UCB. After the dimensions were revealed, the definition was then proposed. The developed scale of UCB was then created and the reliability and validity were examined.

This chapter presents the findings from the first phase of the study as follows:

1. Description of key informants
2. The initial findings
3. Dimensions of UCB
4. Definition of UCB
5. Newly proposed measurement of UCB

Description of Key Informants

The key informants in this research consisted of two groups. The first group was six experts in Thailand and the U.S. This group included three experts from Thailand and another three from the U.S. The experts were all educators who had earned their doctoral degrees. They were educators in the fields of education and industrial psychology. Of these

experts, there were three males and three females. They had all been working in their career as educators for more than five years. The experts from Thailand were coded as TE1 – TE3 and the experts from the U.S. were coded as AE4-AE6. This was done to keep the information of key informants confidential.

The second group consisted of 12 students. Included in this group were five students from a Thai university and seven students from a U.S. university. Both universities are known for their education programs. There were four males and eight females between the ages of 19-23 years old. They were all actively studying in their respective school's College of Education. The students chosen varied from second to fifth year in their majors. The students each had an accumulative GPA higher than 3.0 and had all been actively involved with clubs and organizations outside of the classroom. They all were recommended by teachers as good students.The information of key informants was also kept anonymous by coding their names. The Thai students were coded as TS1 – TS5 and the U.S. students were coded as AS1 – AS7.

The Initial Findings

As stated in chapter two, UCB in prior research was developed from OCB. To develop their definitions and dimensions for UCB, previous researchers were likely to simply replace a few words in order to change the context from organizational to academic settings. It is reasonable that UCB can be adapted from OCB because there are similarities between both contexts, but there was no confirmation process presented in the prior research. Therefore, the experts were interviewed in this research to confirm that UCB can indeed be developed from OCB.

Data Coding

The first step of the analysis was data coding. The data gathered from the experts were coded into a sentence in order to categorize the data into main ideas. The initial findings revealed seven main ideas as follows.

1. There is a difference in goals of students and employees.

The main difference that stood out from the interviews between organizational and academic contexts was the difference in students and employees goals.

In universities, students work hard for and focus more on their individual goals. In contrast, employees work to get a salary by achieving and focusing on organizational goals. The goal of an employee is more likely to be an organizational goal instead of the individual goal that motivates a student.

"In OCB, the bottom line is always money. This is true of both the employees and companies. UCB, on the other hand, the benefits realized are typically for the individual and not for the organization" AE4

"I think there are differences because in a company your motive is gonna [sic] be different. I'm working hard. I need money to raise my family. I'm working hard to get an advancement, to get a promotion that usually ends up with more money. It's more financial driven. For the student, they come to university and when... they are not looking at the whole but they are looking at themselves as an individual" AE6

2. There are some similarities of students at university and employees in an organization.

The findings from the interviews revealed the main similarities of students at university and employees in an organization in two aspects. The first aspect focused on the actions and the second one focused on the context.

The first aspect focused on actions the students and employees perform at their respective institutions. Both students and employees are likely to make an effort to go above and beyond to benefit their institutions, even if they have different drives as explained in main idea one above. Hence, this kind of behavior can reasonably be considered citizenship behavior in both contexts.

"In some ways yes I do believe they are the same because once a student becomes... comes to a university they are proud of that university even after they graduate, they are promoting the university, they are talking about it, they send their children to the university, they're very proud of their university so they're willing to go above

and beyond. It starts, many times, when they are students. To be accepted to their university of choice gives them that pride to go above and beyond. If the person in an organization feels that way about their company so in that respect, they would be very much the same." AE6

"I agree that OCB can be applied and used in educational settings because students who study at universities are also members of that university's community as well. Students, who perform well and benefit their university without being forced, can definitely fit under the category of UCB." TE3

The second aspect shed light on the context of both university and organization. The experts stated that the context of universities today is considered by many to be similar to the context of organizations. Members in both contexts are also similar because the actions of both university and organization membersinvolve getting something in turn for their efforts; however, at university, in general, students may not get benefits in the form of monetary incentive as employees of an organization would. Though not monetary, students do still get something back in return. For instance, they gain experiences which can be listed on their resumes. They also improve their skills, which can be useful for their future career. So in both contexts, in general, members benefit their institutions and the institutions benefit their members.

"For the student, well I guess in some ways it could be the same... I know many people that volunteer at their university. They go above and beyond so they can put things on their resume. So then when they go out to get a job they have a more full reflection of what they've done to prove to their company that they are going to do the same for them." AE6

"It's all about trading as described in the social exchange theory... the world nowadays is a capitalist system. In both university and organization it's all about trading. They just partake in different kinds of trading. In the present,

people in academia know that education is more likely to be a business education.
So, I don't think it is different from the business organization setting.
Students come to university and exchange for something...
same as in organization." TE1

3. UCB can be developed from OCB.

This main idea confirmed that UCB could be developed from OCB. Although there was a difference as described in main idea one above, it appears that the similarities explained in main idea two earlier plays a more vital role in applying OCB to the university context. Therefore, it is reasonable that UCB can be developed from OCB.

"OCB can be adapted to the academic context and used as a measurement with students." AE4

"In my opinion, education institutions have changed a lot lately.They are different from the past, which mainly focuses on developingor cultivating students only. Educational systems nowadays are like a business education. So I don't think they both are different. I don't think the differences would affect the construct while applying it to university." TE1

"I agree that UCB can be adapted from OCB which was constructed for employees in the organizational setting because students who study at a university play a member role in their university as well." TE3

4. The words "monetary incentive and rewards" in the organization context should be replaced with "extra grades and scores" in the university context.

This main idea highlighted a slight difference in concept between OCB and UCB. OCB in organizations is the behaviors which are discretionary, not directly or explicitly recognized by the formal reward system (Organ et al., 2006). In the university setting, students do not generally get monetary incentives or rewards. The experts agreed that

using extra grades and scores instead of monetary incentive and rewards is more fitting in the university context since students get grades and scores as consequences of their work.

"In university, students serve their university without getting extra scores or grades? Yes and I think there are a lot of students that do that...It is to build a better citizenry." AE6

"In the university level and environment, it should not be a business benefit. Yes, the monetary incentive or rewards should be transformed as extra grades or scores in the university context." TE1

5. UCB is a behavior that students exhibit which directly and indirectly leads to them learning and gaining more skills.

In regard to this main idea, the feedback of experts reflected that a good citizen of a university should always seek opportunities at their university, both directly and indirectly. A behavior that students exhibit to learn and gain more skills in both academia and non-academia should be presented in the definition as well. In fact, while students perform UCB and benefit their university, they are also likely to be honing and gaining skills.

"I think it's a student… with um… who seeks opportunities for learning and for advancing the learning of others both academically and socially. You know they learn specific types of knowledge in the classroom... So they are learning from people outside of... just the instructor. So it's a way to gain more knowledge and meet various people." AE5

"At their university, students should perform positively. For instance, they have to always look for opportunities for learning. This reflects a good citizen of a university" TE2

6. UCB consists of behaviors that shouldn't negatively affect anyone.

The expert stated that a good citizen of a university should perform to benefit their universities, but while they benefit their universities, that action should not negatively affect anyone.

"UCB is a behavior considered a positive action and is accepted by people in the surroundings. For me, it should not negatively affect anyone while benefitting the university. If it negatively affects anyone it shouldn't be considered UCB." TE1

7. UCB is important in universities.

This main idea reflected how importance UCB is in the academic setting. This behavior should be reinforced because it encourages students to become good citizens in both their universities and in societies. After graduation, students will take these positive behaviors with them into the workplace and into life outside of academia.

"I have a number of students on campus who once they're done they are gonna [sic] go teach in very difficult schools, poor schools, because money is not the incentive. It is to build a better citizenry. To have a more educated society so to speak... and that intrinsic value of doing good. When you talk with them they will say it's not about the money. It's about the doing good part that they're willing to do that." AE6

"It will be invaluable if we can foster UCB in students while they are at university. In doing this we will be producing good people for society as well. In the future, these students will play a vital role in society and organizations. If students perform UCB while at university we can make sure that they will perform in the same way." TE3

Data Analysis

The next section of this research begins with an analysis of the initial findings. This was done to confirm that it is logical to develop UCB from OCB. After the data gathered were categorized into the seven main ideas, as shown above, all main ideas were then analyzed as follows.

Based on the interviews from the experts, main idea one and main idea two reflected the main difference and the similarities between students at universities and employees in organizations.According to main idea two, the context of university and organization are mostly the same. Focusing on context, in general, universities today are reflective of the capitalistic society. People ultimately do things to get things in return. Even if the goals of students and employees are different, as shown in main idea one, trading still occurs in both contexts. It could be implied that there is a small or no difference between organizations and universities in this point.

Focusing on actions, students and employees are able to obtain more knowledge and skill while studying and working. Also, both universities and organizations have rules which members need to follow, and they need to be responsible in regard to their surroundings. Moreover, both at universities and in organizations, if members have the same ideals and perform positively in the same way, such as going above and beyond and giving back to the institutions, these behaviors can be considered citizenship behavior.

All of these findings, seen in main idea one and two, point to the fact that it is reasonable that most of the OCB definition can work well in the academic context. Although there is a difference in their goals and consequences, it appears that the similarities are strong and plentiful enough to support the idea that UCB can suitably be drawn from OCB. The evidence that UCB can be developed from OCB is presented in main idea three. The experts agreed that UCB can be developed from OCB.

However, some points needing to be revised can be seen in main idea four, five, and six. In accordance with main idea four, in organizations the compensation employees get is typically in the form of money and rewards. On the other hand, at universities, students typically receive grades and scores as the outcome. The experts agreed that if OCB captures the behaviors that employees exhibit to serve their organizations without

getting monetary incentive or rewards, in parallel, it is reasonable that when OCB is adopted to use in academic context, a developed definition of UCB should transform “monetary incentive and rewards” with “extra grades or scores.”

As mentioned above, main idea five explored another aspect that can be included in the newly proposed definition of UCB. When students exhibit UCB, it often helps them to gain and hone more skills directly and indirectly both in academia and non-academia. For example, when students teach other students and participate in class, they typically gain more knowledge and social skills. When students join clubs outside the classroom, they perhaps gain both social skills and the specific skills that those clubs explore. Hence, this main idea is suitable to be included in the new overarching definition of UCB.

The last point that was added to the new definition of UCB is shown in main idea six. UCB should be a behavior that benefits the universities while not negatively affecting anyone. This is very significant. In performing these behaviors to better themselves and benefit their universities, the students should be cognizant that their actions do not harm others. Blindly following their ambition when it comes to forwarding their studies could negatively affect other students and end up harming the universities’ community. Indeed, there are lots of actions students can take to benefit their universities, but those actions should not negatively affect anyone. For example, if students rehearse stand cheers to compete with other universities, and their loudness interrupts other classes, this would not be considered UCB. The stand cheer itself is a good thing because it helps to build the reputation of the universities and builds students’ teamwork. On the other hand, since in the described situation it disregards other students and has a negative effect on others, it would not be considered UCB. If the students performed their rehearsal after school hours, it could be considered UCB. Hence, main idea four, five, and six were used to conceptualize the developed definition of UCB which is described later in this chapter.

Main idea seven reflected how beneficial it is when students exhibit UCB. The experts highlighted that if UCB is embedded while the students are at their universities, they will likely take these attributes with them when they enter the workforce. Moreover, students can also learn good behaviors from each other’s actions at their universities. When they perform positive behaviors, it possibly signals to other students that this is the proper way to

behave. Other students possibly absorb and repeat these positive behaviors because peers are another source at universities to shape students' attitudes, emotions and actions (Steinberg, 1996). It will also likely increase the chance that they will become good citizens of their society.

Dimensions of University Citizenship Behavior

The purpose of this next part of the research was to discern the dimensions which reflect UCB. The Constant comparative analysis (CCA)was adapted for this purpose. The data were collected by asking questions of students in order to elicit behavioral indicators representing UCB. Then, those answers were coded. In accordance with this type of analysis, after the data gathered were coded, the code was compared with other codes for similarities and differences. Some codes were grouped together by using higher-level descriptive concepts if they conceptually reflected the same main idea. This technique was selected because it allows the researcher to distinguish one category from another. This makes it more understandable to identify dimensions specific to each category (Strauss & Corbin, 2008; Saldana, 2009).

In addition, cultural differences were also considered in this part. Since this research aimed to create a developed scale of UCB that could be used to measure students in both Thailand and the U.S., the data gathered from the interviews of Thai and U.S. students were first coded separately for each country. Then the codes from the two countries were compared for similarities. All codes that both countries had in common were selected to analyze in order to develop dimensions of UCB and create a scale for UCB.

As shown in the next section, although in some codes students from different countries did not report the exact same behaviors, they were still assigned the same code because they reflected the same or similar types of behavior. This research presented quotations from both Thai and U.S. students for each code while refining the dimensions of UCB in order to reveal that they both considered UCB in similar regards.

Data Coding

This section presents all codes gathered from the interviews that students in Thailand and the U.S. have in common. The data were coded in order to categorize all indicators and behaviors into distinct parts. The findings revealed codes of UCB as follows:

1. Help students study

This code reflected the behavior where students help each other in order to achieve their academic purpose either when they see somebody is struggling or they are asked for help. For instance, students help with friends' homework or teach them when they don't understand. They share their notes to help peers if they missed something in class. They create study groups to help each other before taking a test.

"So, if I'm in one of my major classes I would be more inclined to connect with my peers or create group chats or study groups with them. Of course…If I see someone struggling I'll help them." AS1

"I really like to help people succeed and get the most out of…. I don't like watching people fail. So if they need help and I can and I have the capability to do that I would definitely help. Yes, because I think we're honestly all here for the same thing so why not help each other out in the process." AS4

"I feel like I just... like yes... I focus a lot on my school work and I'm willing to help other people out with their school work. I think it's just passing on the knowledge that I've acquired. I have learned a lot about this school just in my classes. So just like paying it forward by passing knowledge on. So help out other classmates as well because you're all in it together. You all have a goal to get a degree... so that kinda [sic] helps to make you a good citizen." AS7

"We create a study group or when dealing with a difficult subject
we will help each other study before taking a test. Plus, we always
encourage each other when in class." TS1

2. Help teachers

This code represented the behavior where students help teachers in order to facilitate the learning process. For instance, students prepare computer and paper work to save the teachers' time and energy.

"I really try to do anything that would help the professor.
Simple things like if they need help passing out paper and I'll help.
I'm always the person that volunteers." AS4

"Prepare computers for teachers, pass out papers, keep the class clean
are what I always do to help teachers." TS1
"I think when teachers come to teach us we should prepare the computer
in order to save their time. Help them to carry stuff or if they mention that
they will give out paperwork next week.
We just ask them if they need us to make a copy." TS3

3. Help in non-academic work

This code reflected the behavior where students provide help which does not involve academic success. For example, they listen to and help friends solve life problems. They escort friends through an unsafe area. This help can be something simple such as opening the door for other people or picking up a dropped pen off the floor.

"Just being there for someone. Not necessarily for academics.
Just being there to listen. Because a lot of people go through a lot of different things and
school doesn't always take top priority. I've learned the more you listen and question that
would be more helpful than helping someone with their homework." AS1

"Helping others with their homework if you can. Helping someone pick up their pencils if they fall. Opening the door for someone." AS3

"I'm just thinking of the students in general...that's what comes to mind because all students here are very courteous to each other. We're all willing to help out with each other's homework if we need help figuring out a problem. If we need a ride to go to grocery store... it's very easy to find those opportunities because people are very kind like that." AS7

"I mainly just listen to them. If I have the experience or I can suggest advice to them I will. If I can't suggest or help them, I will still be a good listener." TS1

"The house of one of our students burnt down. She is not even my friend but she studies here and there was an announcement on PR of my university. I think we should help." TS2

4. Feel as if a part of the university

This represented the idea that students feel and act as if they are a part of their universities. Students don't just come to class and study. They come to their universities and engage in non-required and non- academic activities.

"You don't have to be a huge component of the organization. You just need to be committed." AS1

"Um… Honestly, I was hoping to get involved at my previous college and be a part of...because in community college it's really hard just to feel as a part of that college. When you constantly are like just going to class and going home you are not really involved as much as you would at a university." AS4

“I feel like there is a bond batween my university and me. This is a place I study.
I feel like I’m a part of this place.” TS2

”Students should have a feeling that they are a part of their universities.
They have to give back to their universities because their universities provide them
a chance to study.” TS3

5. Be proud

This code reflected the idea that students are proud of their universities. They feel that their universities are a good place to be and that they chose to study at the right universities.

“I would just hope that as a student here that you love being here.
I just feel like if you don’t take pride in where you get your education from
and where you’re living then I just think that that’s a really big disconnect.
I think I’ve done so well here because I love that I’m here.
So I think to be a good citizen of this campus you should love it back.” AS5

“Respectfully represent your university. Not everybody has the opportunity
for an education and I think some people take what they have for granted.” AS6

“They’re always willing to tell you where things are because
there’s a great deal of pride in this university and we are really proud
that we go here so we do wanna [sic] share that pride
and sense of joy in the university.” AS7

“Studying in a Faculty of Education program anywhere else would not be
as good as studying here. I know I have pride. This university plays a vital role
in the nation’s education system.” TS1

"I tell everybody that I study here. I'm proud of being here." TS5

6. Join clubs/activities outside the classroom

This code reflected the idea that good citizens of universities should join clubs or participate in programs outside of the classroom. It doesn't only benefit the universities but it perhaps helps the students gain experiences and skills while participating. Moreover, it helps students feel more involved with their universities.

"When it comes down to it as a community member of this university,
personally I feel I'm more involved than most students based on my year because
as a sophomore most students are now just starting to fully engage
into different organizations and clubs." AS1

"Aside from your work, immersing yourself in clubs and organizations.
I don't wanna [sic] be a musician but I'm in the band here, and it's just something extra and something that you can meet new people doing and just immerse yourself in the culture of the campus where there are a lot of opportunities. So just immerse yourself in clubs. I think just immersing yourself in the culture of college is really important and helps you grow. It's four years of your life and if you're meeting new people and in new clubs I think it really helps you grow as a person" AS3

"I think being a good citizen of the campus would be to be involved.
Whether that means through volunteering or not. I just think that being involved in
more than just your classes widens your experience as a student
and as I said it opens your mind. You have a lot to learn.
There's a lot outside your classroom. A lot of the organizations I've been in
as my years have gone by are some of the best learning opportunities
that I've had." AS5

"You can't only come to university and study. When you join any kind of activities if affects the university as whole. Some activity affects the faculty and yes, the faculty is a part of university as well. You just do it." TS4

7. Have a positive attitude

This code represented the idea that students have a positive attitude while they are attending their universities. This positive attitude should be reflected in their viewpoint towards their universities and their attitude when they engage in activities.

"If you're involved and enjoying it and you have a positive attitude going into it, that means you're a good citizen of this university. If you're just at university only focused on grades… only focused on this or that…or different things that don't require you to get out of your comfort zone than you're not just doing a disservice to yourself but also to university." AS1

"We study here so we should be proud. Also, though, we should not look down on other universities. Like with me, I feel like my faculty is so small compared to other faculties. This is not ideal. This is just my opinion, but when I talked to my friends from another faculty, they say their faculty has a small classroom as well. Then I realized I just see our problems and they see their problems. I should just happy with what I have and try my best in everything. That's all." TS2

"Students should not have a negative attitude towards their university. For example, when they talk to their friends from another university. Some of them may not know their university well but still talk negatively about their university. That is, they should love the university where they study even though there are both good and bad things. They should focus on the good things." TS3

"When we are struggling with something we just need to find a solution.
Everywhere has problems. When you can get through it you grow up.
It means that the university gives you good things." TS4

8. Give back to community

This code encompassed the behaviors where students serve their societies outside of their universities. Students can give back to their communities by helping them when they need help or helping to develop the communities with their capabilities.

"I think the university is part of the community. I feel like these big universities
like this dominate the town so if we're not giving back in any way
it's kind of like not saying thank you for letting us have a place to be here.
Just small things like we're walking around all the time and people have to slow down
because there are just all these people walking from class to class
so I feel like that yes…we should be serving the community
because we are such a big part of it. We kind of dominate the town...
especially in the area where the university is." AS4

"To be a citizen of the community you have to give back.
You don't just take from where you live. You always give back to people.
I think that part of being a teacher is being part of the commujity.
Like I said, I think if you're gonna [sic] be a good part of the community
you're gonna[sic] need to give back to it." AS5

"There are some projects that students work on together.
You can't think that you just come to your university to study.
We have to integrate our experiences to give back to our community.
We focus on community service projects. School is a center of knowledge.
We go and build a library, build a knowledge resource for students.
Moreover, this kind of project... volunteer... first you can find out more about yourself.

Second, you learn more than you learn in class because it's more real.
When we go out and volunteer, when we contact them, they know where we are from.
It is about the reputation of our university." TS3

9. Uphold the university's reputation

This code illustrated the behavior that students exhibit when they are concerned about the reputation of their universities. Students can uphold the universities' reputations by acting properly while both inside and outside of their universities. They also provide good and positive information when they are asked about their universities.

"So the overall environment here is very positive, I would say.
It would be a great place to send your kids. That's what I would tell someone.
I'd definitely be promoting it…I wouldn't say that there are a lot of negatives about this university. But there are so many opportunities here that you can pick and choose what you want to be and whether you want to be a part of that." AS4

"Yeah...I would say so. Just cause [sic]...as I said...I've been in those leadership roles so I think keeping the reputation of the school would fall on my shoulders because if I didn't believe in this university then I wouldn't have gotten so involved in organizations." AS5

"I wouldn't focus on... since the negative things are so small compare to the positive ones. If I'm just talking to someone, those wouldn't come to mind first.
I probably wouldn't even think of any of the negative things because this university is like 99 percent positive things. So that one percent I wouldn't really let it skew the view because it doesn't affect mine." AS7

"I promote my university but it's not advertising. It's a fact.
The things that pop up in my head are good things. Yes, there are some bad things also but they are few if you compare to the good things" TS1

"When I go somewhere and I'm still wearing my uniform I will think about how I behave. If I don't behave well it will ruin the reputation of my university.
People don't know who I am but they know the university." TS2

"In my opinion, every university has both good and bad things.
I would like people to focus on the good things.
Many times when they say something bad about their university there is no advantage, plus, people listening will think negatively about their university. " TS3

"When I did some activities involving what my university was known for,
for example, this university is well known for producing teachers.
I would like to promote my university by letting them know
we produced good teachers." TS4

10. Volunteer

This code represented the behavior where students would like to give back to their universities. They can do any type of volunteer work. For example, when the universities need students to volunteer for something in order to benefit the universities, they don't hesitate to enroll.

"Yes. I do think that I'm a good citizen of this university.
I've spent a lot of my time as a leader…in a leadership role at this university
in educational programs. That has also included volunteer work. So I've given myself as a leader to many organizations and my time as well as some of my money to this university
and also the volunteering that we do with the groups." AS5

"I do think that you see a lot of students with this viewpoint that we are here to try
and learn something. The pressure is on our shoulders to do as well as we can
in this university, but in doing as well as we can we shouldn't spend that time
completely self-absorbed. We should be trying to give back to the university

by volunteering. So I think volunteering helps better yourself as a person as well. You're not just giving back to look good on your resume. You are giving back because it helps you develop as a person, helps you learn important skills." AS7

"Participate. In some activities you won't get money or scores and it has no conditions. For example, an activity created by the faculty needs a working group in order to run that activity. The best thing the university can do is to ask students to enroll as volunteers. We are good citizens of the university... we should enroll. Even though you may not be a leader at least you are involved." TS1

11. Take care of surroundings

This code reflected the behavior where students take good care and are conscientious of the surroundings at their universities. For example, they keep their universities neat and clean by not littering and picking up trash.

"If there's trash on the ground I'm going to pick it up because it makes the university look good." AS4

"Ok. I think that respecting the campus… Keeping the quad on campus clean. Littering is disrespectful no matter where you are. Especially at a place where you pay a ton to attend....why would you want it to be dirty? Yeah...I live here...this is where I learn. This is where I'm gonna [sic] graduate and have a career and I don't wanna [sic] look back and remember the quad being dirty." AS5

"I wanna [sic] keep it clean because I don't want if someone's parents... or someone is driving around or someone is walking through campus and see that there's garbage everywhere. That's not how I want my campus to be seen, so..." AS7

“Speaking of the environment, for sure don’t make it dirty. Don’t litter. This is the place where we live and study. It represents the norm and character of students and the university. At least don’t make it worse if you don’t help develop it.” TS1

12. Participate in class

This code illustrated the behaviors where students perform in class. This includes behaviors which help make the learning process successful, such as students preparing for class. Good citizens of their universities participate in class by answering questions, joining discussions, and raising their ideas. They are active and conscious during class and ready to respond anytime they have an opportunity.

“I think of asking questions. Don’t be scared to ask questions. Don’t be scared to voice your opinion. Show the teacher what you know, be attentive to the teacher, just simple things like nodding and making sure teacher knows you are listening.” AS3

“So I think doing homework to prepare for the class and participating and taking part in the discussions or if you’re going to give a presentation. I think that actively participating and actively listening to... those kinds of things make you a good student.” AS5

“When the teachers ask them questions, there will be multiple hands that go up, or if he or she asks us to voice our opinion on something most students are not afraid to do that here because they know their opinion won’t be shot down or belittled. So that is pretty cool.” AS7

“Firstly, it has to be two-way communication. When my teacher asks me a question or asks me to give an example, I always answer if I know. If I don’t know I will listen. Being quiet is not the best thing to do when the class needs participation. Students have to be active when a teacher creates an activity in class. ” TS1

"If teachers ask me and I don't know, I will ask them if I can look into it more or research more and I will give them an answer next time." TS3

13. Pay attention in class

This code meant students have to pay attention and keep track of what the instructors are saying and communicating to them while in the classroom.

"Turning in your assignment on time is required to be a good citizen. There's no excuse for it to be late unless you don't have the deadline given to you. Like if the professor just said the paper's gonna [sic] be due sometime next week then you can't really determine when it's due. But if he gives you a specific day… like it's due on Friday but you turn it in on Monday then there's no excuse." AS1

"In the classroom, I think you should put forth a lot of effort...to not just memorizing the things that you need to know for the tests. Kinda [sic] put effort into what you're learning in that aspect." AS7

"Students should focus on what the teacher is teaching and pay attention when they have a project to complete." TS1

14. Do not get distracted/ stay focused

This code represented the behavior where students don't get distracted in class. Students don't talk to each other or play on their phone or use their laptops except for school activities while in the classroom.

"I mean it definitely is difficult to... even though some of our classes are only 50 minutes... to not look at your phone for a full 50 minutes... but it can be distracting to look at it. I think that in a lot of situations some students are smart about when they use it. So they are not gonna [sic] use it when they are writing down a lot of notes or something like that. But I think that....I have this one class that's a technology free zone. You can't bring

your laptop, you can't bring your phone and I definitely think I'm more focused in that class than my other classes because my phone is not there." AS7

"Playing on your phone....when I teach I can't stand when students are playing on their phones. You can check your phone every once in a while.... that's ok." TS2

15. Inform involved parties

This code reflected the behavior where students are concerned about how what they do may affect people surrounding them. If they know they cannot come to class or join an activity they had signed up for they inform involved parties such as teachers and/or friends.

"First of all, I know most of my professors get worried if you don't show up for class. They think that maybe something bad happened to you. So I think it's just common courtesy to let them know that... yeah… maybe I am sick but I'm fine. I'm just not feeling right or something came up and I can't be there. Also letting them know that I've looked ahead for the work that I'm gonna [sic] miss. I would also reach out to one of my friends in my classes just to let them know." AS5

"Your professors, in a way, care about where you are at a certain point. You just have to be respectful of. If you email them and say, 'Hey I'm gonna [sic] be late.' It's better than if you just don't show up. Or showing up next class and saying, 'Hey...what did I miss?'" AS6

"If somebody is going to be absent, we have to know. It affects teachers. They may prepare some activities that we have to work on as a group. It ruins a teaching plan and also the person missing class will have to follow up and ask you." TS1

"I have to inform my teachers if I won't be able to come in class. They recognize me. They may be like, 'Where am I?', and sometimes they prepare some activities which are specific to a certain amount of students." TS4

16. Respect teachers

This code was the behavior where students respect their teachers in general. For example, they behave in class. They talk to teachers politely and respectfully. They acknowledge their teachers when they see them and they don't talk behind teachers' backs.

"Respecting your fellow peers and your teacher…I think that's a really big one… just so you can be a positive student and a positive example." AS3

"Yes…the big thing is Facebook and being on there while in class. It really comes back to respect. The professor is taking the time to teach. So why would you come to class and just be sitting on your phone or your laptop doing other things. Being respectful to the teachers. I cannot stand when students are disrespectful of teachers." AS4

"When we express our ideas, yes, we have the right to do so…that is good... but it should be done in a respectful way. You shouldn't say something that implies that you don't respect a teacher." TS2

"You can't have a bad attitude towards teachers. If we have good attitudes towards things, we will be able to take and learn from everything. It's a good thing. Be polite and know what is appropriate, what you can do what you can't do. Talk to them politely. Say 'Sawasdee' when you see them. When you talk about them you need to realize that they are your teachers and you have limits." TS4

"Respect your teachers. Talk to them nicely and politely. Pay attention in class. We need to be responsible. Sometimes they may not mark your scores down or give you a bad grade but we still have to respect them." TS5

17. Dress properly

This code illustrated that students are concerned with the appropriateness of their clothing. They dress properly and professionally both at their universities and when they represent their universities outside of campus.

"It's their own choice. At this point we aren't in high school….we aren't in grade school. You should be able to wear what you want. But they should be aware that people make assumptions from that." AS3

"I think if it was revealing clothing and it was a smaller class and the teachers know your name and stuff like that I think that they might discuss it with you. They wouldn't say you are not allowed to wear that because that's not really the place. They will just probably talk to you about how that's presenting yourself professionally and how you wanna [sic] be seen. I think that's how they would approach it." AS7

"I always wear uniforms. There are a small number of students who do that. This is another reason that I'm proud that I'm a good citizen of this university." TS1

"Dressing properly is important. It seems like the university tries to socialize us to have a good character." TS4

18. Understand an inconvenient situation

This code explained how students act when an inconvenient situation occurs at their university. Students have patience. They are calm and focus on finding a solution instead of casting blame.

"Well I think if it was an exam or test I would talk to my professor afterwards because if I studied and everything and think I did really well on it and if I got it back I'd review it myself and then see. There's no point to argue that because it's all on the paper. The grade that you got is the work that you put in so I don't really believe that someone is smart all of a sudden. Like, 'Oh! I was smart here. I was born smart.' People who work hard don't necessarily tell people they work hard. They just like to be called smart." AS1

"So I wouldn't necessarily blame it on them because it kind of falls back on me cause as a student there's something that I could have done differently. Maybe I could have studied harder, or written a paper, or gone in to let them review the paper. There's much more than just blaming the professor." AS6

"It's not like posting on Facebook. It ruins the reputation of your university. When an inconvenient situation occurs you should inform somebody who is in charge to take care of it. You should not blame or curse. It doesn't help." TS1

"For me, I will accept whatever grade I've got because I believe the teacher has already reviewed it. Then I have to ask myself if I studied hard enough. Did I project well enough?" TS3

"At the dorm the water shuts off all the time. We just inform whoever is in charge and listen to them. Just wait because... There are some people that are always looking for someone to blame but nobody wants it to happen. Blaming is pointless. It's already broken. Why don't you find another solution?" TS2

19. Be willing to try something new

This code reflected the behavior where students are willing to get out of their comfort zones. They don't hesitate to explore clubs or activities in order to learn what they have not known before.

"Well, I believe that if you're involved in anything…it doesn't really have to be what I'm involved in. You could be involved in the fencing club, even like handball or they play spike ball outside the recreation center…anything like that. You have to be willing to try." AS1

"Also being a part of the campus as a whole, being in organizations to further yourself and further others... working collaboratively. Trying to reach out to others that and do things that get you out of your comfort zone." AS3

"I think finding the right balance for you can kind of also make you a good citizen of your university. I'm amazed the friends that I've found who share the same interests. I guess I would have never assumed that all of us would like volunteering or being engaged in our academics or whatever it might be...until you try it." AS6

"Try a new club to gain experience. I know it depends on a lifestyle as well, but learning outside the classroom is important. Learning is not limited. Your brain can take a lot of things. It's not like you can only take 10 or 100 stories for your whole life." TS1

"Get out of your comfort zone. Yes, it could be right or it could be wrong but at least you would gain some experience. If you are scared but you still dare to do something new you will do it better than you know. You will definitely make it because you try your best. In contrast, the things that you know really well, you may be careless about them." TS2

20. Take advantage of opportunities

This code illustrated the behavior where students are active in using their resources to gain knowledge. Students take advantage of what their universities provide, such as a library and workshop classes.

"I do think that they are hurting themselves. If you're going to be at a big university like this, why not take advantage of all the opportunities here? I think college is really a place where you get out of it what you put in." AS4

"Also use the resources provided to me because a lot of people pay good money for the expensive library and also this space. Just to utilize the things that I can." AS5

"It doesn't mean that every student has to go to the library only because nowadays you can access any news or information in real time. Good students should always seek new knowledge." TS1

"Like with me, for example, I'm not good in English. The program I'm in only provides two English classes over five years of studying. I can't speak English well so I have to take responsibility. I have to find some English books to read and help me learn." TS2

"I always take notes because sometimes even if we have read/researched this before or known from before, we still might not have all the knowledge or info. There are so many things I don't know, and the teachers have more experience to share. I have to take notes because it's new for me and I need to adapt with my career. I think knowledge is dynamic. Some stories I have to look up from many resources... then I can criticize and analyze what it actually means." TS3

"The technologies are broadening nowadays. Anything you are good at... just do it, use whatever tools you can to seek out knowledge." TS4

21. Focus on/set goals

This code represented the behavior where students set their academic goals and stay focused on what they are doing academically. They know why they are at their universities and they focus on accomplishing their academic goals.

"Find the three things you really care about and those are the things you dedicate most or all your time to. After that you can probably add more to it after you're comfortable." AS1

"We come to study. We have to know why we are here. Studying is not a loitering thing." TS3

"Yes, students have to focus on graduating. I know one friend who didn't care enough about studying and ended up not graduating in time. It affects the family." TS2

22. Have an open mind

This code reflected the behavior where students are willing to learn and hear about something even if it is different from what they believe. They are always ready to absorb new knowledge and to listening to differing opinions.

"Even if you don't like the club… I went to bee keeping club once. It wasn't my thing but I went there just to see if it was. If it was then I would have stayed. The more open you are the more opportunities may present themselves to you." AS1

"Students should be active all the time. Students have to open their minds. They can't be a cup full of water that nobody can fill any more into. They have to always fill up their knowledge." TS3

23. Create a relationship with teachers

This was the behavior where students create relationships with their teachers. It is up to the students to approach their teachers and make conversations in order to get to know and help build rapport with their teachers.

"Also your relationship with your professors because most classes at this university are over 40 kr 50 people…maybe larger. Really, the professors do care about the students.

So, you always have to be the first one to initiate the conversation or initiate that first contact. Then you realize that they're people just like your friends. It's nice. Just get to know your professors. I would say that would be a crucial component to become a citizen." AS1

"Creating relationship with teachers is important. When teachers need help I always help. Our teachers are like teachers from elementary school. We are so close to each other but teachers from another department I'm not that close with. If I have to contact them, I will, and if they need help I will also help." TS2

"Our teachers are very easy to talk with. I just need to know the best place and time to be in touch with them. Sometimes,if I don't understand something in class,
I can just go to see them." TS4

24. Create a relationship with friends/be friendly

This code reflected the behavior where students create relationships with friends. Students are friendly and talk to friends, peers, and teachers. They are social.

"I think it will make you become a good citizen when you create relationships with others students because that helps you to figure out... just like yourself and keeps you happy and might help you find new things that you can do." AS7

"Try to be friendly and make as many connections as you can, because that helps out." AS3

"I would say a student... who maintains good grades while also is very social with their peer groups and is well known in the community is a good citizen." AS7

"We should have relationships with friends. Say hi and have a conversation.
It's not like we just come to study and take all from teachers and that's all." TS3

25. Make connections

This code represented the behavior where students make connections with organizations and people both in and outside of their universities. Students make connections by contacting or joining activities created by organizations. This helps students to have a chance to promote their universities and gain knowledge.

"I don't just see it as I'm here to just get a degree...so I'm trying to make connections with people by helping out different organizations." AS7

"I think that activities where I can make connections to an organization outside the university positively affects the university. An example of such an organization is the Black Board Game. Advantages to making these connections does not only include knowing students from other universities. There is a chance that we can exchange knowledge. Each university has its own character.
Students can learn from the good things about each other." TS1

"Having a good relationship with an organization outside of your university is very important. It helps you create your own network. You might not know what you will do in the future but at least you can be confident that you know somebody who may help you to get a job. Also this benefits the university. When your university has an event or project, the organization may help your university by being a sponsor as long as you have a good relationship." TS5

DataAnalysis

In considering the 25 codes gathered from the interviews, some codes reported by students in each country did not reflect the exact same behaviors. These were still grouped under the same code because they reflected similar types of behaviors. This was done to help clarify the similarities and differences of students from both countries.

The first example of this was the code have a positive attitude. Thai students saw attitude as the viewpoint they held when something negative happened to them at their

university. On the other hand, U.S. students expressed that students should carry positive attitudes while doing things or joining activities at their university. Even though they reflect different ideas, both attitudes represent that students should carry a positive attitude while they are students of their universities.

The second example was respect teachers. In this aspect, respect mostly focused on students' actions in the classroom in both the Thai and U.S. contexts. Thai students placed more importance on verbal language. They mentioned greeting their teachers with respect and talking politely to their teachers. Thai language has many levels of words which are more specific to seniority. When Thai students indicate the word "politely", it means using another level of language that is specific to elders, such as teachers. This is perhapsmore complex than the English language. On the other hand, U.S. students also mentioned respecting teachers, but respect from U.S. students reflected more the actions towards their teachers. These indicators were grouped under the same code because these concepts of respect are similar even though students show it in different ways.

Dress properly was the third example. In the U.S., in general, there are no uniforms for undergraduate students. They have more freedom in what clothes they wear, but from the interviews, U.S. students stated they should still wear proper attire and be aware of how dress can affect people's impression of them. In Thailand, in general, undergraduate students wear uniforms but some students often just wear jeans and sneakers with their uniforms, which is inappropriate according to the students interviewed. Although the rules regarding dress codes at universities in both countries are typically different, they reflect the same idea that students should wear proper attire.

Another example was presented in the code inform involved parties. The data gathered from the U.S. student interviews showed a closer, more casual relationship between students and teachers when compared to Thai students. An example was that U.S. students were concerned that their teachers would get worried if not informed when they could not come to class. For the Thai students, the interviews showed more concern about the group norm and how their actions would affect their teachers in terms of the teaching process. This shows a greater distance between Thai students and their teachers. This can be explained by Hofstede's (1984)'s finding which revealed that Thai culture shows a large

power distance, whereas U.S. culture illustrates a smaller power distance in the classrooms. More supportive evidence can be seen in Liberman's (1994) study. The author stated that U.S. professors and students are more likely to see themselves on the same level (as equals); therefore, students are more comfortable in engaging their professors in honest discussion and open debate. U.S. students are less intimidated when it comes to approaching their professors. In contrast, Asian teaching styles mainly instill in students a respect of group norm and culture (Organ et al., 2006; Steward & Bennett, 1991). However, they were similar enough to be grouped under the same code.

For some codes, students from both countries revealed the same behaviors. For example, in the uphold the university's reputation, students from both countries would like to ensure their universities have a positive reputation, because universities are the place they study and where they attain knowledge. This aspect can be explained by Naito and Washizu's (2015) research, which indicated that this feeling is universal. A sense of appreciation is felt when people receive something valuable.

In this next section, taking into consideration the findings from the coded data, some codes were regrouped in order to consolidate codes with higher-level descriptive phrases. Each group of codes was then called categories as shown in table 7

Table 7

Categories of UCB

No.	Code	Category
1	Help students study	Help others
	Help teachers	
	Help in non-academic work	
2	Feel as if a part of the university	Be involved
	Be proud	
	Join clubs/activities outside the classroom	
	Have a positive attitude	
3	Give back to community	Perform morally
	Uphold the university's reputation	
	Volunteer	
	Take care of surroundings	
	Participate in class	
	Pay attention in class	
	Do not get distracted/stay focused	

Table 7

(Continued)

No.	Code	Category
4	Inform involved parties Respect teachers Dress properly	Be concerned about one's actions
5	Understand an inconvenient situation	Be reasonable and patient
6	Be willing to try something new Take advantage of opportunities Focus on/set goals Have an open mind	Be interested in academic work
7	Create a relationship with teachers Create a relationship with friends/be friendly Make connections	Build interpersonal relationships

As seen in table 7 the codes were regrouped to further consolidate the data and defined as categories. The first group of codes was consolidated to create the category help others. This category was comprised of help students study, help teachers, and help in non-academic work. It represents any type of help students can provide academically and non-academically at universities.

The second category was labeled be involved. Included in this group were feel as if a part of the university, be proud, join clubs/activities outside the classroom, and have a positive attitude. The codes included in this category reflected a sense of students being involved with their university and not just going to class and studying. Students perform to

be more involved at their universities by doing more than what their universities academically require.

The third category, perform morally, reflected two types of behaviors, including giving back and giving importance to class. The first behavior, giving back,is represented by give back to community, uphold the university's reputation, volunteer, and take care of surroundings. When students uphold the university's reputation, volunteer when the university needs help, and take care of the university's surroundings, it shows that students give back to their universities in the form of good deeds and actions. The second behavior,giving importance to class, included participate in class, pay attention in class, and do not get distracted/stay focused. These represented the activities showing that students value the education and knowledge they attain while in the classroom. Students know that what they learn in class is of upmost importance to them. It was decided that these two types of behaviors would be merged under the same category and named perform morally because they represented the behaviors where students value and are aware of their roles by performing more than what is required both inside and outside of the classroom.

The fourth category was be concerned about one's actions. The codes grouped under this category are inform involved parties, respect teachers, and dress properly. These three codes represented behaviors that if students are not aware of them may negatively affect them at their universities. For instant, if students know that they cannot come to class and they do not inform someone, the learning process or an activity might not be accomplished. If the students do not respect teachers the learning process might not be complete because the teachers cannot entirely play their roles. Dress properly might not directly impact the learning process but it affects the image of the universities and reflects on the student's professionalism.

The fifth category was be reasonable and patient. It was recoded from Understand an Inconvenient Situation. The new code illustrated the actions of students representing how they act when an inconvenient situation occurs at their universities.

Be willing to try something new, take advantage of opportunities, focus on/set goals, and have an open mind were grouped together and defined as be interested in academic

work. These four codes illustrated the behaviors that students exhibit when they are interested in attaining new knowledge and when they plan to study. Students get knowledge by getting out of their comfort zone to try something new and by taking advantage of what their universities provide. Students with open minds can take in more knowledge than those who are close-minded. Students who have a goal always know in which direction they should be going, which can be a sign that they care about academia.

The final category was labeled as build interpersonal relationships. It was created by merging create a relationship with teachers, create a relationship with friends/be friendly, and make connections. These behaviors all reflected the idea that students use their interpersonal skills in order to create relationships with people or organizations surrounding them. Students know how to effectively interact with people or organizations surrounding them.

To transform all categories to dimensions of UCB, all categories were integrated with the dimensions of OCB. This study reasonably compared its findings with the OCB concept of Organ (1988) in order to make it more understandable through the lens of OCB. This was done because the results from the expert interviews confirmed that UCB could be drawn from OCB. The findings are shown in table 4.2.

Table 8

The Comparison Between Existing OCB and the Dimensions of Research Findings

No.	OCB's dimension (Organ, 1988)	OCB's definition (Organ, 1988)	Research findings	Explanation of the findings
1	Altruism	Voluntary actions that help another person with a work problem.	Help others	Help that students provide at their universities in both academic and non-academic needs. It includes help between students and between students and teachers.
2	Civic virtue	A constructive involvement in the political process of the organization, including not just expressing opinions but reading one's mail, attending meetings, and keeping abreast of larger issues involving the organization	Be involved	Behaviors that students exhibit when they are willing to get involved with life at their universities. They also exhibit a positive attitude towards their universities.

Table 8

(Continued)

No.	OCB's dimension (Organ, 1988)	OCB's definition (Organ, 1988)	Research findings	Explanation of the findings
3	Conscientiousness	A pattern of going well beyond minimally required levels of attendance, punctuality, housekeeping, conserving resources, and related matters of internal maintenance.	Perform morally	Behaviors where students are aware of and take responsibility for their role at their universities. They perform well beyond only going to class. Students also give back to their communities and universities.
4	7Courtesy	Employees subsume all of those foresightful gestures that help someone else prevent a problem.	Be concerned about one's actions	Behaviors where students respect and are concerned about other people and their surroundings. They are aware that what they do and how they act may affect others and their universities.

Table 8

(Continued)

No.	OCB's dimension (Organ, 1988)	OCB's definition (Organ, 1988)	Research findings	Explanation of the findings
5	Sportsmanship	A citizen-like posture of tolerating the inevitable inconveniences and impositions of work without whining and grievances.	Be reasonable and patient	Behaviors that students show in facing challenges and while persevering despite inconvenient or negative situations at their universities. They carefully examine the situation and think rationally. They exhibit a good and fair attitude.
6	-	-	Be interested in academic work	Behaviors where students eagerly give priority to the knowledge they are gaining. Students also have open minds and accept different people's points of view.

Table 8

(Continued)

No.	OCB's dimension (Organ, 1988)	OCB's definition (Organ, 1988)	Research findings	
7	-	-	Build interpersonal relationships	Behaviors where students place importance on relationships and interactions with others at their universities. They always create and maintain good relationships with people. Students also make connections with organizations to benefit their universities.

According to table 8 in an organization, altruism is the voluntary behaviors where employees help their co-workers. The findings from this study showed that in the university context, help others includes any type of help that students provide in both academia and non-academia. Therefore, help others in this study seems to have a broader scope than in an organization. However, it does reflect a sense of helping, so it could be reasonable to define help others as altruism.

Civic virtue refers to the behaviors that employees exhibit when they act as a part of an organization and positively respond to their organizations in various ways. It reflects a sense that employees are involved with their organization and do not just go to work. When it comes to UCB, be involved reflects the behaviors where students do more than just go to class. They respond to and are involved with their universities. Hence, be involved was defined as civic virtue.

Perform morally was most comparable to conscientiousness. Perform morally represents the behaviors where students perform more than they are required to in class and academia. They also give back to their universities. Conscientiousness in an organization reflects a similar idea. It includes the behaviors where employees go beyond minimal requirements and take care of their organizations. Hence, this category was defined as conscientiousness.

Be concerned about one's actions was compared to courtesy in the organization context. They both illustrate behaviors where members are concerned about how their actions may affect people surrounding them. They act in order to prevent possible problems that may occur as a result of their actions. Thus, this category was defined as courtesy.

In an organization, sportsmanship is the behavior where employees exhibit tolerance when they face problems. In the university context, be reasonable and patient is the behavior where students have patience when they face inconvenient situations. Instead of blaming someone else, they focus on finding solutions. These both represent similar ideas. Therefore, be reasonable and patient was defined as sportsmanship.

Be interested in academic work was not found to correspond with any of the dimensions of OCB. Therefore, this new idea was exclusive to UCB. This behavior benefits the university and is therefore important to include. This category reflects that students

areenthusiastic and interested in academia. The actions they perform leadto the achievement of a learning process which contributes to the betterment of their universities.To define this category, the term “Information Seeking” from theinformation seeking behavior of Wilson(1999) was employed. According to this behavior, in general, the information seeking behavior explains the process undertaken by individualsseeking information which can be personal or related to their role demands of their work or life. Individuals engage in this process when they identify their own needs for information which can be psychological, cognitive, or affective. Individuals search for information and use that information in a loop till their needs are satisfied.To apply this concept to this current research in the academic setting, enthusiastic students were presumed to have a need to be successful in their learning, thus theyeagerly perform in order to gain knowledge or skills. As they continueto gain knowledge and are successful in their learning they are encouraged to take advantage of their opportunities and expand their vision. Hence, the term information seeking was selected to represent be interested in academic work.

The last category, build interpersonal relationships, was another idea which was not contained in OCB. In this research the term interpersonal relationships was chosen to represent this category as a dimension. The reason that this idea was included as a part of UCB was because undergraduate students, in general, are adolescence. Cohesive groups and relationships between peers and other members possibly play a more vital role in their university lives than they do with employees in organizations. This category captures the idea that students are socially connected and have positive relationships with other members at their universities. Interpersonal relationships between students and others are typically crucial because they relate to academic achievement (Makara, Fishman, Karabenick, and Teasley, 2015). Interpersonal relationships can also help to facilitate the learning process in the classroom or in group assignments. A positive relationship between students and other members could also help create a pleasurable environment at universities and facilitate activities outside of the classroom. This could, perhaps, benefit the universities as a whole. If students cannot get along with members in their society then it might be difficult for them to excel in their lives at their universities.

In regard to the results, there were seven dimensions of UCB developed. There were slight differences in the details of the five dimensions that were shared with prior research. Altruism in prior research only focused on help students provide to their friends and peers in academic situations. Altruism in this new study also included help in non-academic settings and help that students provided to their teachers in order to facilitate the learning process. The concept of civic virtue was mostly the same with the exception that in this new study it introduced the idea that students should perform these actions with a positive attitude. In prior research conscientiousness included the behavior where students attend class on time. This behavior was not included in this study because at the Thai university, in general, if students do not attend class they will get punished. UCB in this new study did not consider behaviors involving punishment. Moreover, conscientiousness in this new study included behaviors students performed outside of the classroom as well. Examples of this are giving back to the community and upholding their universities' reputation. These ideas were not explored in prior UCB research. In contrast, courtesy and sportsmanship in prior research and in this study reflected the same concept. In addition, the developed concept of UCB included two additional dimensions. These two new dimensions, as explained earlier, were information seeking and interpersonal relationships. Hence, the concept of UCB developed in this new study is more expansive and includes more student behaviors than prior concepts.

Conclusion

In summary, the developed dimensions of UCB were defined by grouping codes which represent the same main ideas together into categories. All the categories were compared to OCB in order to convert them into the seven following dimensions.

1. Altruism

Help students provide at their universities. This help can be both voluntary or in response to being asked. It includes help between students and between students and teachers. It occurs in response to both academic and non-academic needs.

2. Civic virtue

The behavior that students exhibit when they are willing to embrace life at their universities and on campus. It includes the behavior based on a positive attitude towards their universities and reflects actions that show a feeling that they are a part of their communities and take pride in where they attend school.

3. Conscientiousness

The behavior where students are aware of and take responsibility for their role in their universities. They perform more than they are required to perform at their universities. It is comprised of the behavior where students give back to their community and take good care of their campus. Also, they are not the cause of any disciplinary concerns, which can ruin the universities' prestige.

4. Courtesy

The behavior where students respect and are concerned about other people and their surroundings. They are aware that what they do and how they act may affect others and their universities.

5. Sportsmanship

The behavior where students show in facing challenges and while persevering despite inconvenient or negative situations at their universities. When bad things occur to students, they carefully examine the situation and think rationally before blaming another person or reacting without thinking.

6. Information seeking

The behavior where students eagerly give priority to the knowledge they are gaining. They have open minds and accept different points of views. They show interest in their studies, in improving their academic performance, and university's lives.

7. Interpersonal relationships

The behavior where students place importance on relationships and interactions at their universities. They communicate in a kind and civil manner with people surrounding them. They always create and maintain good relationships with people and make connections with organizations to benefit their universities.

Definition of University Citizenship Behavior

After the initial findings were discussed and the dimensions of UCB emerged, the definition of UCB was conceptualized. Since UCB in thus current study was developed from OCB, according to Katz (1964), UCB has to be composed of three factors. First, the students must currently be active at their universities. Second, students' tasks must be completed in a dependable manner. Finally, students must exceed formal school requirements.

When it comes to modifying and modernizing the definition of UCB for this research, all main ideas from the expert interviews and dimensions gathered from the student interviews were considered. In addition, as stated in the literature review, the core concept which cannot be changed is that UCB is the behavior where students benefit their universities, will not get punished if they do not perform them, are not forced to perform, and are not associated with formal rewards. The developed definition of UCB should also contain main idea four through six gathered from the expert interviews as well. Hence, UCB is a behavior that students are willing to perform and not associate with extra grades, scores, or punishment. Second, UCB is a behavior that students exhibit to gain more skills in both academic and non-academic settings. Third, UCB is a behavior which directly and indirectly benefits the universities without negatively affecting anyone. In considering all revealed dimensions, they also firmly fall under the new definition of UCB.

In summary, UCB encapsulates "behavior which students willingly perform to benefit their university both directly and indirectly without negatively affecting others. Students gain skills in both academia and non-academia from the behaviors they perform. Neither extra scores nor threat of punishment are explicitly involved."

The Developed Scale for University Citizenship Behavior

In this part of the research, the developed scale for UCB is revealed. The items in this measurement were generated by using two resources. First, the indicators and behaviors discovered from the student interviews were utilized in order to create items for a questionnaire. Second, some items in questionnaires from prior research representing similar concepts to this study were considered.

After the items for the scale of UCB were developed, the index of item-objective congruence (IOC) of Rovinelli and Hambleton (1977) was used to test for content validity. Five specialists in the field were asked to rate if the developed items represented UCB in every dimension. Based on the IOC scores, the items were removed or the contents in the items were revised to make it more understandable if they presented IOC below 0.5. The scale had 55 items after the IOC test. Items with correlated item-total correlation below 0.2 were removed to increase the reliability of the scale.

The scale was primarily created with 55 items covering developed dimensions investigated from the interviews. The scale then was reduced to 35 items with the overall reliability of 0.97. It included 31 positive items and four negative items. The first dimension, altruism, included six items after four items were removed and the Cronbach's alpha coefficient was 0.87. Civic virtue contained five items after one item was removed. The reliability of this dimension was 0.92. The third dimension was conscientiousness which contained seven items. The Cronbach's alpha coefficient was 0.82 after removing five items. There were four items to measure courtesy after removing two items and the Cronbach's alpha coefficient was 0.78. In sportsmanship, only one item was removed leaving four items with the reliability of 0.77. The dimension of information seeking included four items after three items were removed. The Cronbach's alpha coefficient was 0.86. Finally, interpersonal relationships contained five items after three items were removed. The Cronbach's alpha coefficient was 0.86.

The purpose of this scale was to measure UCB of students in seven dimensions using a five-point Likert scale. The scale requested students to rate if they agreed or disagreed with the statements provided in the questionnaire. The scale ranged from 1= not true at all to 5 = extremely true. The items are shown in table 9

Table 9

The Developed Scale for UCB in English and Thai

No.	English	Thai	Resource
Altruism			
1	I listen to my friends when they talk about their life problems.	ฉันรับฟังเพื่อน เมื่อพวกเขาพูดคุยกับฉันเกี่ยวกับปัญหาต่างๆ ในชีวิต	Newly created
2	I help my friends when they have problems with their homework.	ฉันช่วยเพื่อน เวลาเพื่อนมีปัญหาในการทำการบ้าน	Newly created
3	I help friends with difficult academic lessons.	ฉันช่วยอธิบายเนื้อหาที่ยากๆ ให้กับเพื่อนๆ	Newly created
4	I give time to help friends when I see that they are struggling.	ฉันสละเวลาเพื่อช่วยเหลือเพื่อนๆ เมื่อฉันเห็นว่าพวกกำลังเขาประสบปัญหาใดก็ตาม	Newly created
5	I provide help to my friends when they ask for it.	ฉันช่วยเหลือเพื่อนๆ เมื่อพวกเขาขอร้อง	Newly created
6	I help teachers to facilitate the learning process: passing out papers, preparing computers, etc.	ฉันช่วยอาจารย์เพื่อให้การเรียนการสอบดำเนินไปด้วยความราบรื่น เช่น ช่วยแจกเอกสาร หรือช่วยจัดเตรียมอุปกณ์คอมพิวเตอร์ เป็นต้น	Newly created
Civic virtue			
7	I participated in the student government or other clubs that potentially make my university a better place.	ฉันเข้าร่วมองค์กรนักศึกษาหรือชมรมต่างๆ ที่มีส่วนช่วยในการพัฒนามหาวิทยาลัย	Adapted from Schmitt et al. (2008)

Table 9

(Continued)

No.	English	Thai	Resource
Civic virtue(Continued)			
8	I am proud to tell everyone which university I study at.	ฉันภูมิใจที่จะบอกกับใครๆ ว่าฉันเรียนอยู่ที่มหาวิทยาลัยใด	Newly created
9	I stay focused on my goals at university because I value education.	ฉันมีความมุ่งมั่นกับเป้าหมายทางการเรียน เพราะฉันเห็นคุณค่าของการศึกษา	Newly created
10	I pup a lot of effort in at my university.	ฉันทุ่มเทอย่างสุดความสามารถในการทำงานด้านต่างๆ ในมหาวิทยาลัย	Newly created
11	I instill my actions at this university with a positive attitude.	พฤติกรรมต่างๆ ที่ฉันแสดงออกในมหาวิทยาลัย ล้วนมีพื้นฐานมาจากทัศนคติที่ดี	Newly created
Conscientiousness			
12	I help to develop the community outside of my university when they need help	ฉันช่วยเหลือชุมชนภายนอกมหาวิทยาลัยเมื่อพวกเขาต้องการความช่วยเหลือ	Newly created
13	When people from outside my university ask me about my university I always focus on positive aspects and try to give them accurate information.	เมื่อมีบุคคลภายนอกสอบถามฉันเกี่ยวกับมหาวิทยาลัย ฉันมักจะนำเสนอด้านดีๆ และเน้นให้ข้อมูลที่ถูกต้อง	Newly created
14	I take good care of my university's campus and environment: pick up trash, don't litter, keep the campus clean, etc.	ฉันใส่ใจดูแลรักษาสิ่งแวดล้อมภายในรั้วมหาวิทยาลัย ไม่ว่าจะด้วยการเก็บขยะ การไม่ทิ้งสิ่งของเรี่ยราด หรือการรักษาความสะอาด	Newly created

Table 9

(Continued)

No.	English	Thai	Resource
Conscientiousness (Continued)			
15	I prepare before class by reading and doing homework.	ฉันเตรียมความพร้อมก่อนเข้าเรียนด้วยการอ่านเนื้อหาล่วงหน้าและทำการบ้าน	Newly created
16	I don't hesitate to raise my ideas and speak my mind when teachers ask.	ฉันไม่ลังเลที่จะแสดงความคิดเห็นเมื่ออาจารย์สอบถาม	Newly created
17	I don't answer questions in class because there will always be other students who can answer.	ฉันไม่ตอบคำถามในห้องเรียนเพราะทุกครั้งจะมีนิสิตคนอื่นที่สามารถตอบได้อยู่เสมอ	Newly created
18	I play on my phone when I am in class because it is common nowadays.	ฉันเล่นโทรศัพท์มือถือในชั้นเรียนเพราะถือว่าเป็นเรื่องปกติของยุคสมัยนี้	Newly created
Courtesy			
19	I am mindful of how my behavior affects other students' work.	ฉันตระหนักดีว่าการกระทำต่างๆของฉันส่งผลกระทบต่องานส่วนรวม	Gore et al. (2014)
20	I inform teachers and/or friends in advance when I know I will not be able to attend class or a meeting.	ฉันแจ้งอาจารย์ และ/หรือ เพื่อนๆ เสมอ เมื่อฉันทราบว่าฉันไม่สามารถเข้าเรียนหรือเข้าประชุมได้	Newly created
21	Even if I have a problem with teachers I don't talk negatively behind those teachers' backs.	ถึงแม้ฉันจะมีปัญหากับอาจารย์ แต่ฉันก็ไม่พูดถึงอาจารย์ลับหลังในทางเสียหาย	Newly created
22	I dress appropriately for attending class.	ฉันแต่งอย่างกายเหมาะสมทุกครั้งเมื่อเข้าชั้นเรียน	Newly created

Table 9

(Continued)

No.	English	Thai	Resource
Sportsmanship			
23	I spend a lot of time complaining and focusing on trivial matters.	ฉันใช้เวลาส่วนใหญ่ไปกับการตำหนิและจดจ่อกับปัญหาเล็กๆ น้อยๆ ที่เกิดขึ้น	Gore et al. (2014)
24	When an inconvenient situation occurs, I am patient and take time before saying anything or taking any actions.	เมื่อสถานการณ์ไม่พึงประสงค์เกิดขึ้นในมหาวิทยาลัยฉันจะอดทนและใช้เวลาก่อนที่จะพูดหรือแสดงออก	Newly created
25	When I get bad grades, I always review my work before blaming it on the teachers.	เวลาที่ฉันได้ผลการเรียนไม่ดี ฉันทบทวนตนเองก่อนเสมอ ก่อนที่จะโทษว่าเป็นความผิดของอาจารย์	Newly created
26	I politely inform someone in charge when there is something broken on campus: the electricity shuts off, water shuts off, a computer is broken, etc.	หากอุปกรณ์ในมหาวิทยาลัยใช้การไม่ได้ เช่น ไฟฟ้าดับ น้ำไม่ไหล หรือคอมพิวเตอร์ใช้งานไม่ได้ ฉันจะแจ้งบุคคลผู้เกี่ยวข้องอย่างสุภาพ	Newly created
Information seeking			
27	I am willing to try out or join a new club to gain new experiences.	ฉันยินดีที่จะลองทำกิจกรรมหรือเข้าร่วมชมรมต่างๆ ที่ฉันไม่เคยลอง เพื่อสั่งสมประสบการณ์ใหม่ๆ	Newly created
28	When I don't understand alesson I look for resources to answer my questions.	เมื่อฉันไม่เข้าใจในบทเรียน ฉันสืบค้นจากแหล่งข้อมูลหลายๆ แหล่งเพื่อตอบคำถามเหล่านั้น	Newly created
29	I am eager to learn	ฉันกระตือรือร้นที่จะเรียนรู้	Newly created

Table 9

(Continued)

No.	English	Thai	Resource
Information seeking (Continued)			
30	I listen to other people's ideas and points of view, even if they contradict mine, to help expand my knowledge.	ฉันรับฟังความคิดของผู้อื่น ถึงแม้ว่าจะแตกต่างจากความเห็นของฉัน เพื่อเพิ่มพูนความรู้ของตนเอง	Newly created
Interpersonal relationships			
31	I am social with friends to help maintain my relationships.	ฉันมีปฏิสัมพันธ์กับเพื่อนๆเพื่อรักษาความสัมพันธ์ที่มี	Newly created
32	I normally am the person who approaches new people to make friends.	โดยปกติแล้วฉันจะเป็นฝ่ายเข้าหาและสานสัมพันธ์กับเพื่อนใหม่ก่อน	Newly created
33	I try and make connections with organizations both inside and outside of my university.	ฉันพยายามสร้างเครือข่ายความสัมพันธ์กับบุคคลหรือองค์กรทั้งในและนอกมหาวิทยาลัย	Newly created
34	I don't always speak politely to university staff.	ฉันมักจะไม่พูดคุยกับเจ้าหน้าที่มหาวิทยาลัยด้วยความสุภาพ	Newly created
35	I always talk to teachers outside of the classroom.	ฉันมักพูดคุยกับอาจารย์นอกห้องเรียนเสมอๆ	Newly created

Discussion

This study used the IOC of Rovinelli and Hambleton (1977) to test for the content validity. According to this technique, five specialists in fields related to this study were asked to rate if the items in the scale represented UCB in every dimension. Items were removed or revised if they presented IOC below 0.5. The statements in this scale were congruent with the results from phase one because they were conducted and applied from the student interviews. Moreover, this study employed some statements from prior research which reported the Cronbach's alpha coefficient between 0.80-0.85. The questionnaire was first written in English and was then translated to Thai by use of the back-translation

technique. A bilingual translator translated all items from the English version to the Thai version. Then, this Thai version was translated back into English by a second bilingual translator. After both versions were produced, a third bilingual expert reviewed the final version to ensure that the measurement is equivalent to the original one (Beaton et al., 1998). This was done to ensure that thescale in both versions would reflect the same meanings in each item.After the developed scale of UCB was created in both English and Thai, it was tested out on both Thai and U.S. students. Items with corrected item-total Correlation below 0.2 were removed to increase the reliability of the scale. In addition, some items were revised in order to make them more understandable. A possible reason that the Cronbach's alpha in this developed scale was high is the homogeneity of the group since all students studied in same field. Moreover, the items in this study seemed more suitable for the university setting because they were generated after investigating actual behaviors of undergraduate students.

Conclusion

The developed scale of UCB was created by integrating the findings from the student interviews and prior scales. It was comprised of 35 items which reflected UCB in seven dimensions. The scale requested students to rate if they agreed or disagreed with the statements provided in the questionnaire. The scale ranged from 1= not true at all to 5 = extremely true. The Cronbach's alpha coefficients in each dimension of UCB are presented in Table 10

Table 10

The Cronbach's Alpha Coefficient of Each Dimension of UCB

Dimension	Cronbach's Alpha Coefficient
Altruism	0.87
Civic virtue	0.92
Conscientiousness	0.82
Courtesy	0.78
Sportsmanship	0.77
Information seeking	0.86
Interpersonal relationships	0.86

The scale was qualified with an overall Cronbach's alpha coefficient of 0.97. Therefore, the scaleof UCB developed in this study was valid and could efficiently be used to measure undergraduate students in both Thailand and the U.S.

CHAPTER 5
RESULTS (PHASE 2)

The purpose of phase two of this study was to test the causal model of university citizenship behavior (UCB) and to compare the differences between Thai and U.S. undergraduate student groups. The hypothesized model was investigated by adapting social exchange theoryand organizational citizenship behavior (OCB) in the organizational context to be used in the university setting. The hypothesized model, with its antecedents, was constructed and shown in figure 2.4. It included 21 hypotheses as follows.

H1: SWB has a positive effect on UCB.

H2: University Engagement has a positive effect on UCB.

H3: SU Fit has a positive effect on University Engagement.

H4a: University Support has a positive effect on UCB.

H4b: University Support has a positive effect on SWB.

H4c: University Support has a positive effect on University Engagement.

H5a: Teacher Support has a positive effect on UCB.

H5b: Teacher Support has a positive effect on SWB.

H5c: Teacher Support has a positive effect on University Engagement.

H6a: Peer Support has a positive effect on UCB.

H6b: Peer Support has a positive effect on SWB.

H6c: Peer Support has a positive effect on University Engagement.

H7a: Learner-Centered Teaching has a positive effect on SWB.

H7b: Learner-Centered Teaching has a positive effect on University Engagement.

H8a: Ethical Climate has a positive effect on SWB.

H8b: Ethical Climate has a positive effect on University Engagement.

H8c: Ethical Climate has a positive effect on SU Fit.

H8d: Ethical Climate has a positive effect on University Support.

H8e: Ethical Climate has a positive effect on Teacher Support.

H8f: Ethical Climate has a positive effect on Peer Support.

H9: The causal model of UCB is not equivalent across Thai and U.S. groups.

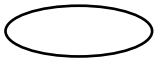
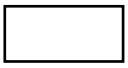
Structural equation modeling (SEM) was used to test all hypotheses and to compare invariance between the Thai and U.S. groups. The goal of SEM analysis is to test how constructed variables in the hypothesized model, investigated by researchers, relate to each other (Schumacker & Lomax, 2004). Hence, this research conducted SEM to test this model of UCB. This section presents the results of the hypothesized model of UCB followed by the model invariance between Thai and U.S. undergraduate student groups, respectively.

Symbol Notations and Abbreviations Used in this Research

In considering SEM as used in this study, structural equation models are depicted with schematics by using geometric symbols. Each symbol represents different meanings in a model (Byrn, 2010). Therefore, this research presents the descriptions of each symbol notation as shown in table 10 and table 11

Table 11

Symbol Notations Used in This Research

Symbol notations	Descriptions
	Latent variable
	Observed variable
	Impact of one variable to another
	- Insignificant path in hypothesized model or - Significantly different path coefficients across the groups

This research also used abbreviations representing variables in the model and tables. Statistical evidence was also abbreviated while presenting the results. The model of

UCB in this research included 21 observed variables and nine latent variables. This section presents all abbreviations used in this research and their descriptions as follows.

Table 12

Abbreviations Used in This Research

Type	Abbreviation	Description
Observed Variables	Alt	Altruism
	Civ	Civic virtue
	Con	Conscientiousness
	Cou	Courtesy
	Spo	Sportsmanship
	Inf	Information seeking
	Int	Interpersonal relationships
	Vig	Vigor
	Ded	Dedication
	Abs	Absorption
	LS	Life satisfaction
	AS	Academic satisfaction
	PA	Positive affect
	IM	Interest-major fit
	NS	Need-supply fit
	DA	Demand-ability fit
	Unis	University support
	Peers	Peer support
	Teas	Teacher support
	Learn	Learner-centered teaching
	Et	Ethical climate
Latent variables	UCB	University citizenship behavior
	UE	University engagement
	SWB	Subjective well-being
	SU	Student-university fit

Table 12

(Continued)

Types	Abbreviations	Descriptions
Latent variables	US	University support
	PS	Peer support
	TS	Teacher support
	LC	Learner-centered teaching
	EC	Ethical climate
Statistical abbreviations	**n**	Number of samples
	M	Mean
	SD	Standard deviation
	Sk	Skewness
	Ku	Kurtosis
	SE	Standard error
	IE	Indirect effect
	DE	Direct effect
	TE	Total effect
	df	Degree of freedom

Demographic Characteristics of Participants

The participants in phase two of this study were students majoring in education and enrolled at universities known for their strong education programs. There were two groups of participants. The first group consisted of Thai undergraduate students from a Thai university. The second group consisted of U.S. undergraduate students from two U.S. universities. The demographic characteristics of the participants are presented in Table 13

Table 13

Demographic Characteristics of Participants

Characteristics of Participants	Thai (n = 323)		U.S. (n = 300)		Sum. (n = 623)	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Age	M = 20.99	SD = 1.454	M = 20.06	SD = 1.133	M = 20.54	SD = 1.389
Gender						
Male	58	18	52	17.3	110	17.7
Female	265	82	248	82.7	513	82.3
Year of study						
Freshmen	69	21.4	12	4.0	81	13.0
Sophomore	49	15.2	157	52.3	206	33.1
Junior	74	22.9	95	31.7	169	27.1
Senior	87	26.9	36	12.0	123	19.7
Super senior	44	3.6	0	0.0	44	7.1
GPA						
3.01 – 4.00	311	96.3	293	97.7	604	97.0
2.01 – 3.00	12	3.7	7	2.3	19	3.0

The average age of students was approximately 20 years old in both groups. The majority of the respondents in both countries were female (more than 80 percent) and were in their second year of college. There was a slight difference between the two groups in year of study. Seniors represented the highest percentage of Thai students, whereas sophomores represented the highest percentage for U.S. students. Another difference can be seen in the concept of super seniors. The reason that some Thai students were labeled as super seniors is that the education program at the Thai university in this research requires five years of study. This is not the case with the U.S. universities in the study. In

regard to grades, most of the students in both groups had high GPAs. The data showed 97 percent of the students in the study had GPAs between 3.01 and 4.00.

Preliminarily Analysis

The preliminarily analyses were conducted in order to screen and prepare data. This was done because SEM requires certain assumptions about the distributional characteristics of the data. Data with problems related can typically make the SEM analysis fail to yield a logical solution (Kline, 2005). This stage included data screening and measurement model analysis.

Data Screening

The data gathered werecarefully screened in order to avoid potential problems during the analysis andto assure that they are appropriate for conducting SEM (Kline, 2005). Data screening in this study is presented as follows.

Outliers are cases that contain scores that are much different than the other cases in a data set. These anomalies can cause collinearities and non-normality of the data which may create issues while conducting SEM (Brown, 2006). In this study, outliers were detected in five cases and were removed from further analyses.

SinceSEM is a method relying on the assumption that the data is normally distributed and also sensitive to the characteristics of the data (Kline, 2005), measures of skewness, kurtosis, and skewness and kurtosis were examined for assessing normal distribution. Skewness relates to the asymmetry, and kurtosis is a measure of the peak and tail (Kline, 2005). The yielded results showed that all items lacked significant skewness and kurtosis ($p > .01$). The evidence was presented in table 5.4. The mean scores of all observed variables were above 3.7.

Table 14

Normality Test of the Data

Variables	Thai					U.S.					Overall				
	M	SD	Sk	Ku	p	M	SD	Sk	Ku	p	M	SD	Sk	Ku	p
1. Alt	4.162	0.519	-0.122	-0.384	0.168	4.186	0.437	-0.060	-0.201	0.721	4.173	0.481	-0.091	-0.308	0.130
2. Civ	4.115	0.568	-0.119	-0.381	0.176	4.172	0.449	-0.038	-0.335	0.398	4.142	0.514	-0.093	-0.316	0.115
3. Con	3.945	0.564	-0.037	-0.201	0.744	4.104	0.501	-0.035	-0.167	0.841	4.022	0.540	-0.038	-0.186	0.579
4. Cou	4.052	0.582	-0.080	-0.391	0.198	4.091	0.588	-0.100	-0.298	0.404	4.070	0.584	-0.100	-0.326	0.094
5. Spo	3.945	0.527	-0.034	-0.172	0.816	4.026	0.525	-0.040	-0.165	0.834	3.983	0.528	-0.038	-0.174	0.622
6. Ent	4.120	0.502	-0.086	-0.377	0.221	4.264	0.476	-0.116	-0.312	0.339	4.189	0.495	-0.107	-0.323	0.089
7. Int	3.954	0.634	-0.083	-0.347	0.287	3.971	0.598	-0.053	-0.203	0.732	3.962	0.616	-0.071	-0.268	0.246
8. LS	3.863	0.700	-0.102	-0.306	0.349	3.931	0.630	-0.059	-0.216	0.688	3.896	0.668	-0.082	-0.270	0.221
9. AS	4.188	0.513	-0.064	-0.234	0.610	4.376	0.461	-0.121	-0.333	0.289	4.278	0.497	-0.096	-0.271	0.191
10. PA	4.056	0.506	-0.053	-0.209	0.696	4.134	0.498	-0.070	-0.233	0.624	4.093	0.503	-0.062	-0.222	0.398
11. Vi	3.700	0.641	-0.027	-0.173	0.823	3.838	0.625	-0.023	-0.145	0.894	3.767	0.636	-0.026	-0.161	0.692
12. Ded	4.198	0.550	-0.127	-0.418	0.114	4.287	0.497	-0.135	-0.456	0.084	4.241	0.527	-0.134	-0.433	0.008
13. Abs	3.782	0.765	-0.096	-0.331	0.306	3.776	0.823	-0.106	-0.355	0.267	3.779	0.793	-0.103	-0.341	0.073
14. IM	4.042	0.601	-0.128	-0.371	0.181	4.199	0.546	-0.156	-0.406	0.123	4.118	0.580	-0.147	-0.378	0.022
15. NS	3.756	0.710	-0.055	-0.227	0.647	4.003	0.661	-0.090	-0.266	0.500	3.875	0.697	-0.074	-0.249	0.290
16. DA	3.901	0.630	-0.061	-0.326	0.368	4.123	0.568	-0.133	-0.223	0.466	4.008	0.611	-0.104	-0.302	0.123
17. Unis	3.893	0.694	-0.057	-0.199	0.713	4.210	0.608	-0.090	-0.243	0.552	4.046	0.673	-0.073	-0.231	0.343
18. Tea	3.957	0.603	-0.053	-0.220	0.667	4.080	0.561	-0.070	-0.224	0.645	4.017	0.586	-0.065	-0.221	0.394
19. Peers	4.168	0.560	-0.090	-0.283	0.428	4.213	0.501	-0.069	-0.240	0.610	4.190	0.532	-0.081	-0.262	0.241
20. Learn	4.184	0.551	-0.149	-0.431	0.083	4.252	0.510	-0.132	-0.379	0.189	4.217	0.533	-0.143	-0.400	0.015
21. Eth	3.939	0.544	-0.048	-0.315	0.414	4.032	0.509	-0.056	-0.189	0.756	3.984	0.529	-0.058	-0.244	0.341

Table 15

Correlations Between Observed Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. Alt	(0.73)																				
2. Civ	.556**	(0.64)																			
3. Con	.607*	.532**	(0.73)																		
4. Cou	.504**	.402**	.543**	(0.60)																	
5. Spo	.525**	.372**	.651**	.592**	(0.50)																
6. Inf	.572**	.522**	.612**	.496**	.529**	(0.68)															
7. Int	.533**	.478**	.609**	.508**	.523**	.517**	(0.63)														
8. LS	.463**	.390**	.466**	.436**	.390**	.391**	.459**	(0.84)													
9. AS	.388**	.418**	.549**	.391**	.487**	.481**	.419**	.456**	(0.70)												
10. PA	.508**	.475**	.535**	.464**	.438**	.503**	.552**	.568**	.479**	(0.87)											
11. Vig	.502**	.419**	.651**	.484**	.548**	.524**	.516**	.511**	.482**	.604**	(0.66)										
12. Ded	.401**	.410**	.504**	.413**	.466**	.500**	.441**	.419**	.522**	.523**	.555**	(0.74)									
13. Abs	.486**	.373**	.564**	.474**	.460**	.442**	.533**	.503**	.387**	.553**	.673**	.524**	(0.66)								
14. IM	.471**	.481**	.568**	.466**	.436**	.555**	.507**	.499**	.550**	.583**	.576**	.549**	.548**	(0.71)							
15. NS	.385**	.315**	.607**	.433**	.468**	.429**	.464**	.433**	.552**	.493**	.607**	.458**	.479**	.554**	(0.58)						
16. DA	.406**	.396**	.473**	.411**	.401**	.482**	.397**	.446**	.418**	.523**	.509**	.490**	.467**	.567**	.535**	(0.81)					
17. Unis	.444**	.378**	.597**	.445**	.446**	.509**	.482**	.471**	.546**	.561**	.606**	.512**	.560**	.591**	.653**	.546**	(0.90)				
18. Teas	.491**	.387**	.555**	.466**	.482**	.505**	.529**	.514**	.496**	.549**	.571**	.488**	.564**	.559**	.515**	.483**	.603**	(0.81)			
19. Peers	.433**	.288**	.496**	.393**	.488**	.420**	.400**	.362**	.459**	.464**	.450**	.473*	.351*	.442*	.460**	.323**	.404**	.495**	(0.84)		
20. Learn	.490**	.437**	.533**	.481**	.506**	.502**	.447**	.448**	.488**	.497**	.477**	.514**	.437**	.559**	.423**	.436**	.457**	.598**	.495**	(0.82)	
21. Eth	.464**	.448**	.560**	.482**	.498**	.523**	.543**	.509**	.476**	.505**	.581**	.483**	.581**	.582**	.498**	.454**	.606**	.571**	.451**	.546**	(0.77)

** Correlation significant at the 0.01 level ($p < 0.01$)

Also, the correlations were examined among the 21 observed variables in this model of UCB. This was done to test whether separate variables are measuring the same thing and to ensure that they are distinct variables. If the variables are measuring the same thing and not distinct it can cause issues while conducting SEM (Kline, 2005). The results of this examination are shown in table 5.5. The bivariate correlations among all observed variables, including 210 estimated parameters, were statistically significant ($p<0.01$). The correlations between the variables were below 0.85 and ranged from 0.288 to 0.673. Hence, all variables were positively associated with each other but not similar enough to be redundant. Of the variables, vigor and absorption appeared to correlate to each other the most.

Since the data gathered showed to beappropriately prepared, the two-step approach recommended by Anderson and Gerbing (1988) was employed. The measurement models of each latent variable were assessed acceptable fit during the first step. This was followed by testing the hypothesized model to insure that the model fit to the data.

The Goodness of Fit Indices

SEM has no single statistical test that best describes the fit of the model (Hair, Black, Anderson,& Tatham, 2006). Thus, this research examined several goodness of fit indices to assess the model fit. It considered fit indices from three categories including absolute fit, fit adjusting for model parsimony, and comparative fit (Brown, 2006). The goodness of fit indices used in this research are shown as follows.

Table 16

The Goodness of Fit Indices and Acceptable Level

Fit Indices	Acceptable Level
Chi-square (χ^2)	p-value significant
Chi-square per degree of freedom (χ^2/**df**)	Value less than 5.00 indicates a reasonable fit
Standardized root mean square residual (SRMR)	Value less than 0.05 indicates a good fit
Root mean square error of approximation (RMSEA)	Value less than 0.08 indicates a good fit
Comparative fit index (CFI)	Value greater 0.90 indicates a good fit
Nonnormed fit index (NNFI)	Value greater 0.90 indicates a good fit

Considering the first category, absolute fit, χ^2, χ^2/**df** and SRMR were selected. Shumacker and Lomax (2004) explained that χ^2 indicates a discrepancy between values in the sample covariance matrix and the reproduced implied covariance matrix. A value of zero is considered a perfect fit. Indeed, χ^2 is sensitive to sample size and the number of parameters which leads to a non-significant value. To reduce the sensitivity, χ^2/**df** was also considered. A value indicating a reasonable fit is less than 5.0 (Kline, 2005). SRMR is the overall discrepancy between the correlations observed in the input matrix and the correlations predicted by the model (Brown, 2006; Kline, 2005). A value of 0.0 indicates a perfect fit and a model with SRMR less than 0.05 is acceptable (Schumacker & Lomax, 2004).

RMSEA was selected to represent the second category. It is the index relying on non-central χ^2 distribution and measures the error of approximation concerning the lack of fit of the model to the population covariance matrix. A value of zero indicates the best fit, whereas the higher the value, the worse of a fit is indicated (Kline, 2005).

The third category included CFI and NNFI. CFI evaluates the improvement in fit of the model in relation to a baseline model. Values closer to 1 or greater than 0.90 indicate a

good fit (Brown, 2006; Kline, 2005). NNFI or the Tucker-Lewis index is a combination of a measurement of parsimony into a comparative index between the proposed and null model. An acceptable value of NNFI is 0.90 or greater (Hair et al, 2006).

Measurement Model

The measurement model of latent variables in this hypothesized model of UCB was tested by conducting confirmatory factor analysis (CFA). This was done to examine whether each latent variable represented their latent construct for the fit dimensions. The models indicating a poor fit were adjusted by taking into consideration the standardized factor loading and the modification index (MI) while insuring that the variable remained theoretically the same. Latent variables included UCB, SWB, university engagement, SU fit, university support, teacher support, peer support, and ethical climate. The statistical evidence is presented in table 17.

Table 17

The Statistical Evidence of the Modification of the Measurement Models

Variable	Adjustment	Goodness of fit indices						
		χ^2	df	χ^2/df	RMSEA	SRMR	CFI	NNFI
UCB	Before	2643.52	553	4.78	0.078	0.068	0.93	0.93
	After	1728.98	398	4.34	0.073	0.061	0.95	0.94
SWB	Before	357.15	167	2.14	0.043	0.039	0.99	0.98
	After	Model did not require a modification.						
UE	Before	235.32	51	4.61	0.076	0.054	0.97	0.96
	After	78.33	32	2.45	0.048	0.032	0.99	0.99
SU	Before	72.39	24	3.02	0.057	0.030	0.99	0.98
	After	38.71	17	2.25	0.045	0.026	0.99	0.99
US	Before	245.29	20	12.26	0.135	0.057	0.95	0.94
	After	9.57	5	1.91	0.038	0.016	1.00	0.99
TS	Before	282.32	20	14.12	0.145	0.077	0.90	0.87
	After	4.43	2	2.22	0.044	0.018	1.00	0.95
PS	Before	158.77	20	7.94	0.106	0.049	0.96	0.94
	After	18.74	9	2.08	0.042	0.023	0.99	0.99
LC	Before	70.03	20	3.50	0.063	0.031	0.99	0.98
	After	0.76	2	0.38	0.051	0.005	1.00	1.00
EC	Before	269.78	20	13.49	0.142	0.073	0.87	0.82
	After	5.6	2	2.8	0.054	0.019	0.99	0.98

The seven-dimension model of UCB, including 35 items, was tested. The results revealed that the initial fit of the data was acceptable but some loadings were below the standard. Thus, the model required some further alterations. One item was removed because it presented a low value of standardized factor loading.Then, four more items were also removed for a better fit of the model. The details of the removed items for all variables are presented in appendix B. This led to a significant modification in model fit which provided a better fit (χ^2= 1723.98, **df**= 398, χ^2/**df** = 4.34, RMSEA = 0.073, SRMR = 0.061, CFI = 0.95, NNFI = 0.94). The final model presented UCB in seven dimensions with 30 items and the standardized factor loadings of all dimensions ranged from 0.75 to 0.98.

For SWB, the results indicated that the model fit to the data well (χ^2= 357.15, **df**= 167, χ^2/**df** = 2.14, RMSEA = 0.043, SRMR = 0.039, CFI = 0.99, NNFI = 0.98), but the correlation coefficients between dimensions demonstrated high values. Thus, the discriminant validity was tested. The results reveled to be statistically non-significant. Hence, the final model retained the same number of dimensions and items (three dimensions and 20 items). The standardized factor loadings of all dimensions ranged from 0.75 to 0.82.

University engagement, including three dimensions, contained 12 items. The model was tested and the initial results presented a poor fit and high values of correlation coefficients between dimensions. Thus, two items were removed and discriminant validity was conducted. The fit improved to acceptable and the final model included 10 items in three dimensions (χ^2= 78.33, **df**= 32, χ^2/**df** = 2.45, RMSEA = 0.048, SRMR = 0.039, CFI = 0.99, NNFI = 0.99). The standardized factor loadings of all dimensions ranged from 0.84 to 0.99.

SU fit included three dimensions and nine items. The measurement model did not produce a good fit in the first trial. Thus, the model was adjusted by removing one item which led to a good fit (χ^2= 38.71, **df**= 17, χ^2/**df** = 2.25, RMSEA = 0.045, SRMR = 0.026, CFI = 0.99, NNFI = 0.99). This final model consisted of eight items reflecting three dimensions. The standardized factor loadings of all dimensions ranged from 0.85 to 0.96.

University support was a single dimensional variable including eight items. The fit indices fell below accepted thresholds in the first trial. Hence, three items were removed. The final model containing five items achieved a good fit (χ^2= 9.75, **df**= 5, χ^2/**df** = 1.91,

RMSEA = 0.038, SRMR = 0.016, CFI = 1.00, NNFI = 0.99). The standardized factor loadings of all items ranged from 0.59 to 0.77.

Teacher support, consisting of eight items, also had only one dimension. The initial fit of the data was not acceptable. The final model produced a good fit after removing four items which left four items in the model (χ^2= 4.43, **df**= 2, χ^2/**df** = 2.22, RMSEA = 0.044, SRMR = 0.018, CFI = 1.00, NNFI = 0.95). The standardized factor loadings of all items ranged from 0.34 to 0.71.

Peer support included eight items reflecting one dimension. The measurement model demonstrated fit indices below the standard. Thus, two items were removed. The final model with six items fit the data well (χ^2= 18.74, **df**= 9, χ^2/**df** = 2.08, RMSEA = 0.042, SRMR = 0.023, CFI = 0.99, NNFI = 0.99). The standardized factor loadings of all items ranged from 0.34 to 0.79.

Learner-centered teaching, consisting of eight items, was another one-dimensional variable. The first analysis did not indicate a good fit. One item was removed due to a critically low value of standardized factor loading. The final model yielded a good fit to the data after three more items were removed. This left four remaining items (χ^2= 0.76, **df**= 2, χ^2/**df** = 0.38, RMSEA = 0.051, SRMR = 0.054, CFI = 1.00, NNFI = 1.00). The standardized factor loadings of all items ranged from 0.65 to 0.80.

The last measurement model tested was ethical climate. This model included eight items representing one dimension. The final model including four items fit to the data well after removing four items (χ^2= 5.6, **df**= 2, χ^2/**df** = 2.8, RMSEA = 0.054, SRMR = 0.019, CFI = 0.99, NNFI = 0.98). The standardized factor loadings of all items ranged from 0.58 to 0.63.

Causal Model of University Citizenship Behavior

Considering the appropriateness of the data and measurement model fits presented previously, the final measurement models of all latent variables yielded satisfied fit indices. The data were ready for the next stage of analysis. The causal model of UCB was, therefore, next analyzed.

In considering latent variables containing more than one dimension including UCB, SWB, university engagement, and SU fit, the value of one factor loading of each variable

(the first dimension) wassetto one. The other loadings for each variable were freely estimated. In considering latent variables with single indicators, it was necessary to fix their measurement errors by using the following equation. Brown (2006) indicated that when the observed variable and latent variable are identical, the error variance is calculated by using δ_x = VAR(X) (1 - ρ). Where VAR(X)is the simple variance of the single indicator and ρ is the reliability estimate of the indicator. The error variances of all one dimensional latent variables are presented in table 18

Table 18

Calculated Error Variances of Latent Variables for Single Indicators

Latent variable	Variance (VAR(X))	Reliability (ρ)	Error variance (δ_x)
US	11.318	0.839	1.822
TS	5.496	0.667	1.830
PS	10.206	0.781	2.235
LC	4.539	0.817	0.830
EC	4.480	0.702	1.335

At this stage SEM was conducted. The results revealed that the fit of the data to the hypothesized model reached an acceptable standard during the first analysis (χ^2= 808.01, **df**= 173, χ^2/**df** = 4.67, RMSEA = 0.077, SRMR = 0.037, CFI = 0.98, NNFI = 0.98) but some indices presented values that were potentially too high. An adjusted model was then tested by adding four paths to the original hypothesized model while insuring a possibility in theory. The paths added included: university support to SU fit, teacher support to learner-centered teaching, peer support to learner-centered teaching, and learner-centered teaching to SU fit. The results indicated an acceptable model fit and yielded a better fit of the model (χ^2= 714.55, **df**= 169, χ^2/**df** = 4.23, RMSEA = 0.072, SRMR = 0.035, CFI = 0.98, NNFI = 0.98). The results therefore partially confirmed the hypotheses regarding this model of UCB. The direct and indirect effects of the variables are presented in table 19 and the final model is shown in figure 7

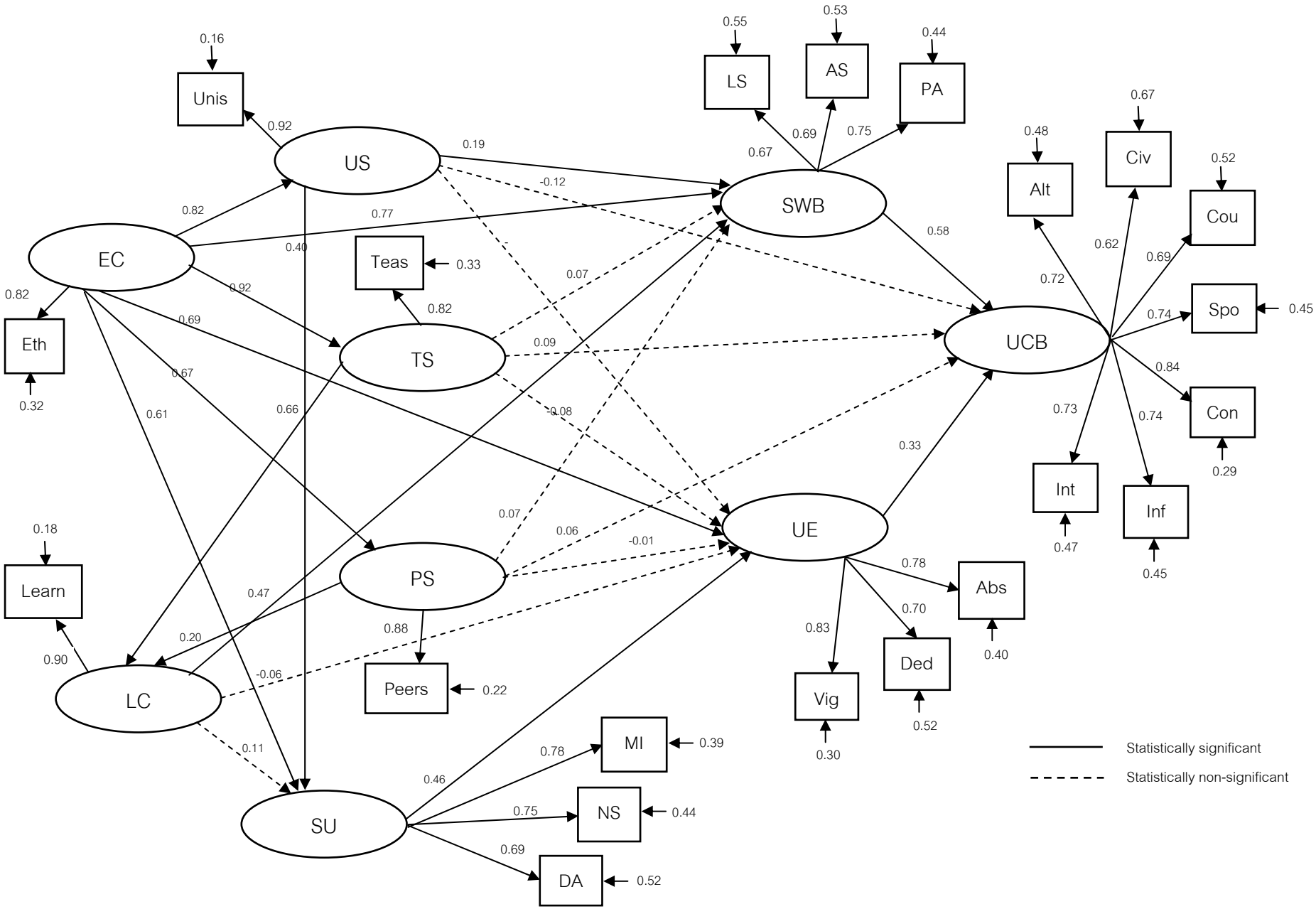


Figure 7 The Causal Model of UCB

Table 19

Direct, Indirect, and Total Effects of Variables

Variables	Variables																							
	US			TS			PS			LC			SU			UE			SWB			UCB		
	DE	IE	TE	DE	IE	TE	DE	IE	TE	DE	IE	TE	DE	IE	TE	DE	IE	TE	DE	IE	TE	DE	IE	TE
EC	0.82**	-	0.82**	0.92**	-	0.92**	0.67**	-	0.67**	-	0.75**	0.75**	0.51**	0.41**	0.92**	0.69**	0.24	0.93**	0.77**	0.18	0.95**	-	0.89**	0.89**
US													0.40**	-	0.40**	-0.06	0.18	0.12	0.19**	-	0.19**	-0.12	0.15*	0.03
TS										0.66**	-	0.66**	-	0.07	0.07	-0.08	0.00	-0.08	-0.16	0.11*	-0.05	0.09	-0.05	0.04
PS										0.20**	-	0.20**	-	0.02	0.02	-0.01	0.00	-0,01	0.07	0.17**	0.11*	0.06	0.06	0.12**
LC													0.11	-	0.11	-0.05	0.05	0.00	0.17**	-	0.17**	-	0.10	0.10
SU																0.46*	-	0.45*				-	0.15	0.15
SWB																						0.58**	-	0.58**
UE																						0.33**	-	0.33**
R^2	0.67			0.85			0.45			0.65			0.91			0.89			0.94				0.83	

*Significant at the 0.05 level (p<0.05), **Significant at the 0.01 level (p<0.01)

When considering the direct effects on UCB, the results revealed UCB to be directly affected by SWB and university engagement. The path coefficients indicated that the relationship between SWB and UCB was more substantial (0.58) than the relationship between university engagement and UCB (0.33). Peer support did not present significant direct and indirect effects but the total effect was significant (0.12). The last and largest significant effect on UCB was found in the indirect effect of ethical climate on UCB (0.89).

Learner-centered teaching, university support and ethical climate showed significant direct effects on SWB. The path coefficient illustrated that ethical climate played the most significant role with a direct effect of 0.77 compared with the other two variables. Indirect effects on SWB were found from teacher support and peer support. Teacher support indicated a lager value of path coefficient (0.11).

Significant direct effects on university engagement were seen from only two variables. These variables were ethical climate and SU fit. Ethical climate revealed a larger effect on university engagement than Su fit which could be seen from their path coefficients (0.69 > 0.45).

Ethical climate and university support appeared to be crucial factors affecting SU fit. The largest significant direct effect was presented by ethical climate with a path coefficient of 0.51.

Learner-centered teaching was directly affected by teacher support and peer support, whereas ethical climate illustrated an indirect effect on learner-centered teaching. The variable indicated the largest direct effect was teacher support with a path coefficient of 0.66.

Ethical climate seems to be the most effective variable. The results revealed that university support, teacher support, and peer support were significantly affected by ethical climate with the direct effects being 0.82, 0.92 and 0.7 respectively.

In conclusion, this model of UCB was strongly predicted by antecedent variables (R^2 = 0.83). The additional four pathways were included for a better fit of the model. In regard to the hypotheses of this study, the hypotheses were partially accepted. That is, H1, H2, H3, H4b, H7a, H8a, H8b, H8c, H8d H8e, and H8f were accepted due to the statistically significant values demonstrated from the model.

Invariance Analysis

Invariance analysis was conducted in order to assess if this model fit both a sample of Thai and U.S. undergraduate students and to examine whether or not there are significant differences that exist between these two groups. This study adapted the sequence of multiple-groups invariance analysis of Brown (2006). The analyses began withform invariance evaluation. This was done to test the separate groups in the UCB model to confirm that the Thai and U.S. groups have identical parameter estimates in the path model, and the number of factors and pattern of indicator-factor loadings are equal across the groups (Brown, 2006; Shumacker et al., 2004). The factor loading measurement invariance evaluation was then conducted. This stage was done to examine whether the measurement models have equivalence across the groups (Brown, 2006). The evaluation then moved forward to structural invariance in order to test the equality of the path coefficients of each relationship in the models. The last step was to test the latent variable mean difference in order to indicate which group has greater or less mean values in each latent variable (Shumacker et al., 2004).

Testing Form Invariance

The data from all participants were separated by nationality. The first set of data was from Thai students and the second set was from U.S. students. The full model investigated in the prior stage was used to test these groups by running individual models on each group without constraining any parameters. The results indicated that model fit to the data (χ^2 = 955.73, **df** = 338, χ^2/**df** = 2.95, RMSEA = 0.077, SRMR = 0.037, CFI = 0.98, NNFI = 0.98). Hence, this model was used as the baseline model for subsequent test of factor loading measurement invariance.

Testing Factor Loading Measurement Invariance

At this stage, the analysis started by constraining all observed variables in the second group. The results provided an adequate fit to the data (χ^2 = 969.31, **df** = 350, χ^2/**df** = 2.77, RMSEA = 0.075, SRMR = 0.044, CFI = 0.98, NNFI = 0.98). The Chi-square difference test was conducted in order to illustrate if there is a significant difference between this model and the baseline model. This was done in order to reveal whether the measurement models were equivalent in both of the groups.

Table 20

The Chi-Square Difference Test Between the Baseline and Factor Loading Measurement Invariance Test Models

Model	χ^2	df
Baseline	955.73	338
Measurement invariance test	969.31	350
Δ	13.58	12
P-value	0.33	

As shown in table 20, the chi-square difference was not significant at the 0.05 level. Hence, the measurement models between Thai and U.S. groups were invariant. This model was then used as the baseline for the structural invariance test.

Testing Structural Invariance

This stage used the model with all variables constrained from the prior step as the baseline. An evaluation began by constraining all relationships in the second group while still constraining all variables. The model fit indices were satisfied (χ^2= 1013.98, **df** = 374,χ^2/**df** = 2.71, RMSEA = 0.074, SRMR = 0.053, CFI = 0.98, NNFI = 0.98). The Chi-square difference test was also applied in order to reveal whether the path coefficients were identical in both the models.

Table 21

The Chi-Square Difference Test Between the Baseline and Structural Invariance Test Models

Model	χ^2	df
Baseline	969.31	350
Structural invariance test	1013.98	374
Δ	44.67	24
P-value	0.01	

As seen in table 21 the Chi-square difference exposed a significant value at the 0.05 level. Thus, the path coefficients were not equivalent between the Thai and U.S. groups. To test for the differences of each path coefficient, each relationship of latent variables was constrained one by one. The Chi-square difference test was also used to indicate the differences in each path. The differences in path coefficients found are shown in table 22

Table 22

The Significant Chi-Square Difference Test of the Relationships Between Variables

Relationships	χ^2	df	RMSEA	χ^2	df	p-value
Baseline model	969.31	350	0.075	-	-	-
UE to UCB	979.78	351	0.076	20.47	1	0.00
US to UCB	980.44	351	0.076	11.13	1	0.00
TS to UCB	976.67	351	0.076	7.36	1	0.01
TS to SWB	981.45	351	0.076	12.14	1	0.00
EC to SWB	976.57	351	0.076	7.26	1	0.01
EC to UE	980.33	351	0.076	11.02	1	0.00
PS to LC	976.85	351	0.076	7.54	1	0.01

Table 22 illustrated significant path coefficients of variables between both the models. The findings indicated that the path coefficient of university engagement, university support and teacher support to UCB were significantly different between both the Thai and U.S. models. The effects of teacher support and ethical climate to SWB provided significant values between both the models. The relationship of ethical climate to university engagement was significantly different in the Thai and U.S. models as well. Finally, the path coefficient of peer support to learner-centered teaching revealed a significant difference between both the models.

Since the results of the structural invariance test demonstrated the distinction of seven path coefficients between the Thai and U.S. model, to evaluate a good fit of the

model, the rest of the relationships were constrained, whereas these seven path coefficients were freely estimated. The model was then tested again and the results presented a good fit (χ^2= 995.09, **df** = 367, χ^2/**df** = 2.71, RMSEA = 0.074, SRMR = 0.045, CFI = 0.98, NNFI = 0.98). Hence, this model was used to describe UCB in both Thai and U.S. undergraduate students and also used to test for the latent variable mean difference for the next stage. The final model is presented in figure 8

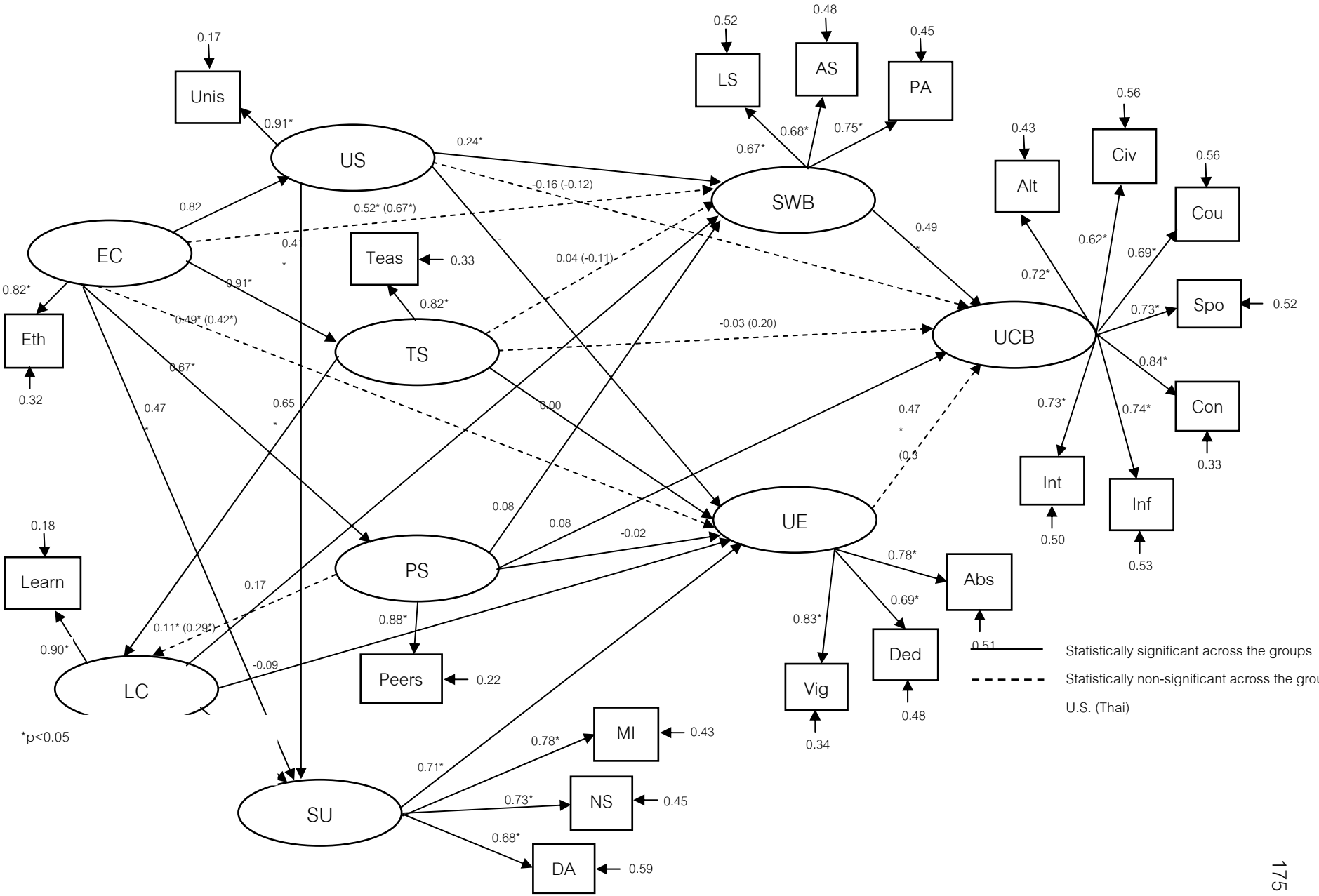


Figure 8 The Invariance Model of UCB

Considering the seven different path coefficients between both the groups presented in figure 5.1, the results revealed significantly different path coefficients in four sets of relationships. That is, the U.S. model showed greater values of path coefficients than the Thai model for university engagement to UCB path (0.47 > 0.37) and ethical climate to university engagement path (0.49 > 0.42). It indicated that, for U.S. students, university engagement positively affected UCB and ethical climate positively affected university engagement more than for Thai students. In contrast, Thai students reported greater values of path coefficients than U.S. students in peer support to learner-centered teaching path (0.29 > 0.11) and ethical climate to SWB path (0.67 > 0.52). This demonstrated that peer support had a more positive effect on learner-centered teaching in Thai students than in U.S. students. It also demonstrated that ethical climate had a more positive effect on SWB in Thai student than in U.S. students.

Testing Latent Variable Mean Difference

This analysis was the final evaluation in this study. The mean difference test was conducted in order to reveal whether the means of latent variables in Thai and U.S. groups were significantly different. If the latent means were significant, then the Thai or U.S. group contained greater or lesser values.

At this stage, the U.S. group was set as a baseline group (group one) and the Thai group was assigned as a comparison group (group two). If the statistical evidence has significantly positive values, it implies that group two has a greater mean latent value than group one. However, group one has a greater mean latent value than group two if the evidence has significantly negative values. The results are presented in table 23

Table 23

A comparison of Latent Means Between Thai and U.S. Groups

Latent variables	Values	Descriptions
UCB	-0.07	Latent means of UCB between both groups were not significantly different.
UE	0.33*	Latent means of University Engagement in the Thai group was significantly higher than the U.S. group.
SWB	-0.04	Latent means of SWB between both groups were not significantly different.
SU	-0.13	Latent means of SU fit between both groups were not significantly different.
US	-1.04*	Latent means of University Support of the Thai group was significantly less than the U.S. group.
TS	-0.10	Latent means of Teacher Support between both groups were not significantly different.
PS	0.15	Latent means of Peer Support between both groups were not significantly different.
LC	0.09	Latent means of Learner-Centered Teaching between both groups were not significantly different.
EC	-0.37*	Latent means of Ethical Climate of the Thai group was significantly less than the U.S. group.

*significant at the 0.05 level ($p < 0.05$)

As presented in table 5.13, there were six variables which were not significantly different in latent means across the Thai and U.S. groups. The variables revealed a significant difference in means between both groups in university engagement, university support, and ethical climate. For university engagement, the value was 0.33 ($p < 0.05$).

Since this was positive, the Thai group demonstrated a higher latent means than the U.S. group. This latent variable was the only variable where the Thai group scored above the U.S. group. In contrast, university support reported -1.04 ($p < 0.05$) and ethical climate demonstrated -0.37 ($p < 0.05$). This indicated that the U.S. group contained greater latent means than the Thai group in both of these variables.

In conclusion, the invariance test between both the groups revealed the differences in the structural invariance test and the mean latent variable difference test. Thus, H9 was accepted. The causal model of UCB is not equivalent across Thai and U.S. models.

CHAPTER 6
DISCUSSION (PHASE 2)

This section provides discussion about the results from phase two of this study. The results and discussion of phase oneof this study are presented in chapter four. The discussion in this chapter includes the relationships between all variables in this model of university citizenship behavior (UCB), the invariance test across Thai and U.S. groups, and the supporting evidence. The results of the causal model of UCB created in this study indicated that the model fit to the data well and partially confirmed the hypotheses.

Discussion

Objective 1: To Test the Developed Causal Model of UCB Among Thai and U.S. Students

Causal Model of University Citizenship Behavior

The model of UCB constructed in this study was valid and partially showed the relationships between all variables as illustrated by the literature reviews.

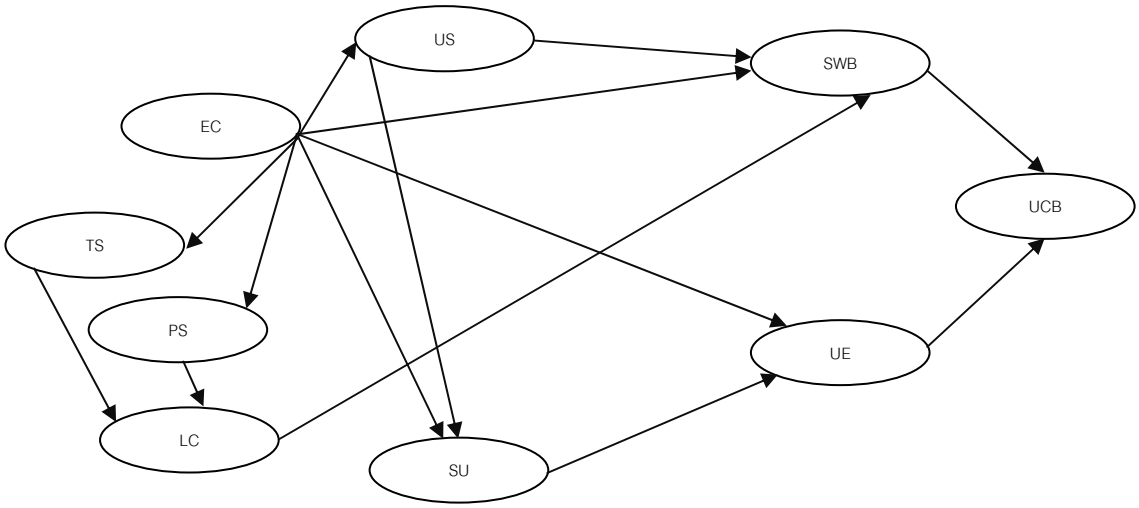


Figure 9 The Causal Model of UCB With all Significant Pathways

Figure 9 presents the significant relationships between the variables of the full model from the results. It indicated that UCB adapted from OCB (organizational citizenship behavior) is effective in the university context. It also supported that all antecedent variables

in this model can be constructedby integrating the social exchange theorywith the reviews of Organ et al. (2006) and Podsakoff et al. (2000).

To help explain the full model, Organ (1988) stated that OCB is a matter of choice and generally not associated with risk of punishment. This means that whether to perform OCB is an individual's own choice. This idea also carries over to the concept of UCB in this study.That is, students have the freedom tochoose whether to exhibit UCB. There are no negative consequences or punishments explicitly tied to choosing not to perform it. Since UCB is a behavior which students willingly perform, the form of exchange typically appears to be the best supportive evidence to back the results of this study. Social exchange is an exchange of resources between two individuals (Shumaker and Brownell, 1984), and the feeling of obligation occurs after an individual gets something from the other (Blau,1964). When individuals are recognized in a positive way by their organizations, they feel a commitment to return positive behaviors (Elstad, Christophersen,& Turmo, 2011).This appears to be the same in the university context. The transformation of the form of exchangeis presented in table 24

Table 24

Transformation of Social Exchange Theory Across The University Context

Indicators	In theory	In the university context
Relationship	Individual(s) one	Undergraduate students
	Individual(s) two	Universities
Actions	Being recognized in a positive way	Getting support, perceiving student-university fit (SU fit), perceiving learner-centered teaching, and perceiving ethics
	Feeling obligation	Being engaged
	Returning positive behaviors	UCB

The first individuals are represented by undergraduate students. Agents who have interactions with the undergraduate students take the place of the other individuals. Since UCB is a behavior where students give back to their universities, indeed, it also involves interactions with three major agents consistinc of universities, teachers, and peers.

The social exchange theory helps explain the majority of this model's results. That is, performing UCB demonstrates returning positive behavior and university engagement reflects feeling obligation, whereasSU fit, university support, teacher support, peer support, learner-centered teaching, and ethical climate illustrate a pattern of how students are positively recognized by the agents. Another concept which helps to explain the result model is subjective well-being (SWB) itself. Diener and Ryan (2009) stated that individuals with SWB are likely to engage more in altruistic or pro-social activities that are similar to UCB.This seems logical and the results revealed that SWB was a significant variable in the model that affected UCB as well.

In conclusion, the social exchange theory appears to be effective in describing the model of UCB from the results. Discussions of each pathway in the model are presented as follows.

1. Accepted hypotheses

The results indicatedthat all variables work together to generate UCB as described. There were 11 hypotheses accepted and four additional pathways.This section discusses the relationship between each set of variables, aligned with the results and hypotheses as follows.

1.1 H1: SWB has a positive effect on UCB.

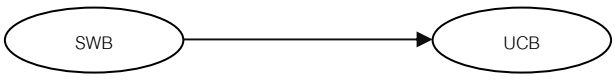


Figure 10 Hypothesis H1

SWB was found to have a significantly positive effect on UCB. It is implied that students with greater levels of SWB perform greater levels of UCB.

This hypothesis is supported by Diener (2000). The author indicated that the level of SWB is influenced by the ability to meet basic needs of individuals. For undergraduate students, graduation is typically one of their goals and possibly refers to a

basic need for them at their universities. Hence, achieving this academic goal is important in their university lives.A crucial key to graduating is GPA and could therefore be considered a basic need. Oishi, Diener, and Lucas (2007) explained that different levels of happiness in students can cause different outcomes. Students with moderate happiness often look for self-improvement such as academic performance. However, volunteering and social relationships are associated with students having high levels of happiness. From the perspective above, it is indicated that once students perform well academically, they may gain a greater level of SWB. When they have higher levels of SWB, they may perform behaviors including social works such as UCB. If students have low GPAs, this may lead them to focus more on academic outcomes such as school performance and an increasein studying instead of performing UCB. In considering the descriptive statistics of this research, 97 percent of the participants had high GPAs (3.00 – 4.00) and the means of SWB reported in three dimensions ranged from 3.86 – 4.06 which is considered high. This implies that students in this study typically reached their basic academic needs by having high GPAs.

There is even more evidence to strengthen the relationship between SWB and UCB. Gore et al. (2014) conducted two studies among undergraduate students to test the hypotheses on whether PANA has a positive effect on UCB attitudes and whether life satisfaction has a positive effect on UCB. UCB in their research was defined as academic citizenship behavior (ACB) and was drawn from Organ (1988). The research of Gore et al. (2014)is consistent with the current study because UCB in both studies was drawn from Organ (1988). Also, PA and life satisfaction were dimensions of SWB. The results revealed that PA positively affected ACB attitudes and life satisfaction positively affected ACB. According to the supportive evidence above, it strengthens the finding of this current research that SWB positively affected UCB.

1.2 H2: University Engagement has a positive effect on UCB.

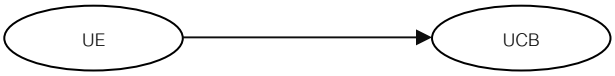


Figure 11 Hypothesis H2

This finding indicated that university engagement positively affected UCB. Thus, students who engage more with their universities perform more UCB.

Engagement demonstrates a bond between students and their academic institutions (Schaufeli, 2002). Willms (2003) indicated that engagement reflects a sense of belonging. Students with engagement are characterized by indicators such as being involved in extracurricular activities or clubs. These actions could apply to UCB since UCB found from the results of the first phase of this study represented the behaviors where students participate in extra activities or clubs at their universities as well. Also, the model of self-process in the education setting presented by Appleton et al. (2008) demonstrated that engagement leads to positive outcomes such as social awareness, conflict resolution skills, and relationships with people. In considering these outcomes, they were found to be part of UCB as well. Social awareness and conflict resolution skills could be compared to courtesy, which is the behavior where students are concerned about how their actions affect people surrounding them. This also includes tolerance that students show when they face difficulties at their universities, while relationships with people applies to interpersonal relationships in UCB.

Due to the limited amount of the research into UCB, the researcher has not found a supportive study explicitly showing that university engagement positively affects UCB. Convincing evidence that could explain the relationship of these two variables could be seen through the lens of social exchange theory and OCB, since UCB is a concept developed from OCB. Elstad et al. (2011) indicated that in considering the social exchange theory of Blau (1964), exchange is based on a feeling of obligation. Reciprocity is a crucial factor that leads individuals to return positive behaviors such as OCB. These positive behaviors occur when individuals engage attheir workplace. Thus, the discussionabove supports that university engagement had a positive effect on UCB.

1.3 H3: SU Fit has a positive effect on University Engagement.

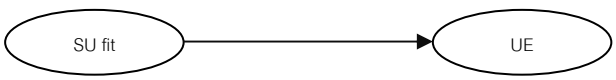


Figure 12 Hypothesis H3

The results revealed that SU fit positively affected university engagement. It is implied that if students feel that they fit their universities more, they engage more with their universities.

SU fit is the congruence between students and their universities and refers to the match of what students need and what they get from attending their universities in three domains: interest-major fit, needs-supplies fit, and demands-abilities fit. The importance of SU fit in academic institution is described by Eccles, Lord, and Roeser (1996). The authors explained the importance of fit in school through the lens of P-E fit. The needs of students and how those needs are met by the school environment are important. They suggested that a positive consequence would occur when what students need and what the environment provides them are synchronized.A poor fit would negatively affect the students' motivation to study which means that a poor fit influences engagement in a negative way.Even though their study focused on high school students, it could be applied to the university setting as well since students in universities also have the similar needs to be fulfilled as described in Martin and Loomis (2013). The study of Eccles et al. (1996) is also compatible with Ainley's (2012) statement. The author indicated that when a match between students' interests and contextual affordance occurs, they readily embrace a desire to find out more. This implies that when a match between students' interests and what universities offer occurs, students are more willing to engage at their universities and studies. More reasonable evidence can be seen in the study of Wintre et al. (2008). The researchers interviewed two groups of first-year university students: those who continued studying at their universities and those who chose to leave. The findings demonstrated that universities and the experiences students get at their universities greatly affect students' decisions on whether to continue with their higher education. Moreover, they illustrated that a reason that students often chose to leave their universities is because they are possibly searching for universities that provide them a better fit.According to the supportive evidence above, it strengthens the finding of this current research that SU fit positively affected university engagement.

1.4 H4c: University Support has a positive effect on SWB.

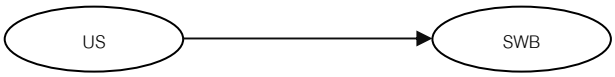


Figure 13 Hypothesis H4c

The results illustrated that university support positively affected SWB. This implies that students who perceive a greater level of support from their universities tend to perform more UCB.

To explain the relationship between these two variables, Diener (2000) mentioned that the reasonsome people are happier than others is because their basic human needs are fulfilled. This idea conforms to Shumaker and Brownell (1984) who illustrated that the well-being of receivers is enhanced when they get support from givers. Applying this to the university setting, it could indicate that SWB of students occurs when students' needs are fulfilled. Martin and Loomis (2013) explored the needs of students by applying Maslow's hierarchy of needs. When students come to universities, they may or may not already have a deficiency in their needs. If students lack what they need, they are likely to look for resources at their universities. The needs described include: physiological needs, safety and security needs, love and belongingness needs, and self-worth and self-belonging needs. Physiological needs are those that people count on to survive such as food, water, and shelter. Safety and security needs are those needs that allow people to live without feelings of fear, anxiety, or harm. When students face difficulties at their universities both academically and non-academically, they also need to feel safe and secured. Love and belongingness needs allow people to have positive relationships with others. At universities, students also need relationships and to be accepted by people surrounding them. The final need type is self-worth and self-esteem. Once students have the prior hierarchy of needs met, they can begin to develop their positive feelings of self-worth and self-esteem.In considering university support in this study, it appears that some students' needs are typically fulfilled by support from their universities. That is, university support in this study reflected the

perceptions of students that their universities provide them with what they need, basic facilities, care about their opinions, and support their activities.These provisions and supports from universities are described by the hierarchy of needs mentioned earlier. They play a vital and a contributing role in allowing students to comfortably spend their years at their universities and to help them achieve their academic goals. According to the supportive evidence above, it strengthens the finding of this current research that university support positively affected SWB.

1.5 H7b: Learner-Centered Teaching has a positive effect on SWB.

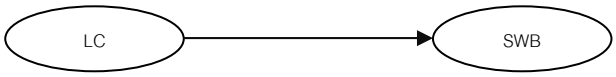


Figure 14 Hypothesis H7b

The results demonstrated that learner-centered teaching positively affected SWB. They illustrate that students who perceive more learner-centered teaching have greater levels of SWB.

This relationship can be described by the learner-centered teaching paradigm itself. This teaching style encourages students to develop more critical thinking skills and potential in learning. The students learn by gathering and synthesizing information. Moreover, this teaching style also creates a classroom of cooperation, collaboration, and support (Huba & Freed, 2000). In considering learner-centered classrooms, students participate more with their peers and teachers. Hence, it typically strengthens their relationships with others, which helps them to get along with people surrounding them and to have happieruniversity lives. Supportive evidence can also be seen from the study of Wohlfarth et al. (2008). The authors examined students' perceptions of learner-centered teaching. The qualitative technique was conducted to interview students who were taught with the learner-centered teaching paradigm. Although the purpose of this study was not to investigate the students' outcomes affected by learner-centered teaching, the qualitative results implicitly reflect students' feelings about this learning which relates to the current study. The results revealed that besides being more knowledgeable students, the students were also being respected as fellow co-learners in the search for knowledge. This factor made the majority of students appreciate and enjoy their classes. This implies

that if students are taught with this teaching style, they will typically be more satisfied with their academic lives and have more SWB.The results fromthe study of Wongsupaluk et al. (2014) also supported the relationship between learner-centered teaching and SWB. The authors investigated the causal model of happiness and its antecedents among nursing science students. Happiness in this research was derived from Diener (1986), and one of the antecedents chosen was student-centered learning. This type of learning includes the process of students constructing knowledge by themselves, participating in the classroom, product from learning, and applications of learning. It is apparent that it overlaps learner-centered teaching as defined in this current research. Hence, they are comparable. The findings indicated that student-centered learning positively affected happiness at the 0.01 level of significance. According to the supportive evidence above, it strengthens the finding of this current research that learner-centered teaching positively affected SWB.

1.6 H8a: Ethical Climate has a positive effect on University Engagement.

1.7 H8b: Ethical Climate has a positive effect on SWB.

1.8 H8c: Ethical Climate has a positive effect on SU Fit.

1.9 H8d: Ethical Climate has a positive effect on University Support.

1.10 H8e: Ethical Climate has a positive effect on Teacher Support.

1.11 H8f: Ethical Climate has a positive effect on Peer Support.

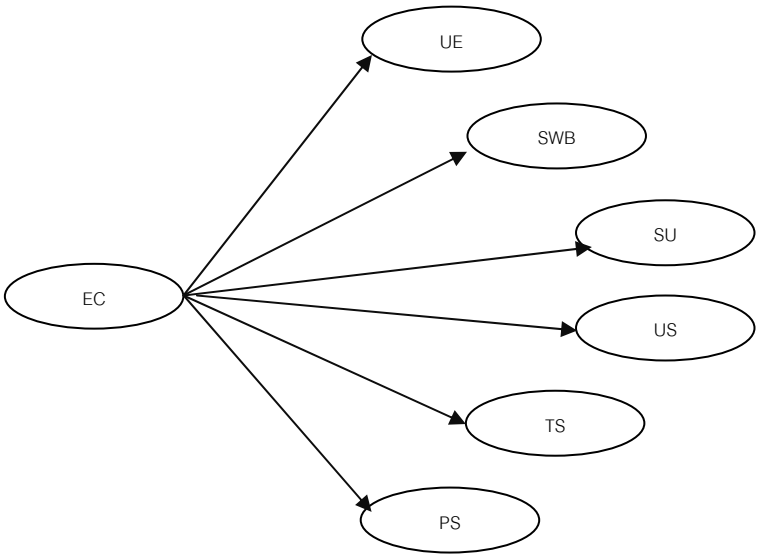


Figure 15 Hypothesis H8a – H8f

The findings revealed that ethical climate positively affected substantial variables in this model of UCB including SWB, SU fit, university engagement, university support, teacher support, and peer support.

Ethical climate in this study was derived from Victor and Cullen (1998). Only one of the dimensions chosen was a utilitarian dimension because it reflects a climate of caring in a moral way. This type of ethical climate is a climate where decision making is based on a concern for the well-being of others, and aims to have the greatest positive outcomes for the majority of the members at a university (Cullen, Paboteeah,& Victor, 2003). Due to limited research on ethical climate at universities, the relationship between ethical climate and university engagement are presumed from the following convincing evidence in the organizational context. Cullen et al. (2003) studied the effect of ethical climate and organizational commitment. Commitment in their research reflected the effort employees put into their organizations, which is congruent with engagement in this current study. The authors described that the utilitarian climate is a climate of cooperation, mutual personal attraction, and positive feelings about tasks which may generate a positive affective tone among members as seen in terms of commitment. The results indicated that ethical climate positively affected organizational commitment.

According to the definition of ethical climate in this current study, it is apparent that ethical climate possibly has a positive effect on SWB because decision making is based on the well-being of others (Cullen et al., 2003). Birtch and Chiang's (2014) study also provides supportive evidence about the effect of ethical climate on SWB. The authors examined the influence of an ethical climate on unethical behavior among undergraduate students. Some examples of unethical behaviors studied are when students say hurtful things or make fun of someone at their school. This type of behavior typically negatively impacts other students' happiness at universities. The findings highlighted that ethical climate negatively affected unethical behavior. Thus, it can be deduced that ethical climate typically reduces unpleasant behaviors that affect the SWB of others at universities.

Since this study was built on limited research on this relationship in the academic setting, to explain the effect of ethical climate on SU fit, the relationship in the organizational setting is employed. In consideringthe study of Lopez et al. (2009), the

authors investigated a relationship between ethical climate and PO fit. The authors explained that ethical climate seems to have an effect on PO fit by giving the example that if employees are highly ethical but the company is not, they may feel pressure to compromise their values to be successful. This implies that if the climate in an organization is not ethical, it may affect congruence between personal values and the organizations referring PO fit. The findings also strengthen this idea because ethical climate appeared to have a positive effect on PO fit. In parallel, in the university context, if students perceive ethical climate, they are likely to feel that their universities provide them a good fit.

In considering the definition of ethical climate, this climate also produces more cohesiveness among the members (Cullen et al., 2003), which represents support between the university's members. From this approach, it may be implied that students who perceive this climate are aware of a sense of caring at their universities and realize that others' actions are based on what is the best for everyone. Students will be more likely to help each other. An example of this is when a student does not understand a lesson. They may be anxious, which affects their well-being. In universities with a strong ethical climate, students are encouraged to help each other and will thus strive to help the anxious student. Likewise, a healthy organizational climate may exist in the entire university (not just among students) if all units of the institution need to function effectively to promote good retention (Koerschen, 1987). From this standpoint, the association of teachers, peers, and the entire university community is crucial in shaping students and encouraging them to perform in a proper and productive way. When a university has an ethical climate, it follows reason that students would perceive support from their university, teachers, and peers.

The reason that ethical climate seems to significantly have a positive effect on many variables is because in a climate of ethics, students typicallyperform more morally. Indeed, ethical climate relates to moral attributes including justice and fairness in a university's decisions. It fosters rational contract forms based on social exchange (Ruiz-Palomino et al., 2013). Students who perceive ethical climates typically realize that what happens at their universities affects them as well as other students. They perhaps feel that their universities support and look out for them. This may foster them to be happy, engaged, and eventually lead them to perform UCB. According to the supportive evidence above, it

strengthens the finding of this current research that ethical climate positively affected university engagement, SWB, SU fit, university support, teacher support, and peer support.

2. Additional relationships

As explained earlier in chapter five, more relationships were added to this model for a better fit of the model while taking theoretical consideration. Three additional pathways were significant. The supporting evidence is presented as follows.

2.1 University Support has a positive effect on SU fit.

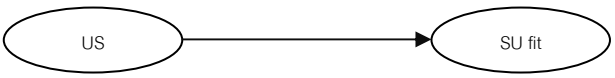


Figure 16 The Effect of University Support on SU Fit

The relationship between university support and SU fit was added to the model. The results showed that university support had a positive effect on SU fit at a significant level of 0.01, and the overall model provided a better fit. It is deduced that when students recognize support from their universities, they perceive that there is congruence between themselves and their universities.

To support this relationship, Kristof (1996) indicated that one reason that compatibility between individuals and their organizations occurs is that one provides what the other needs. In considering the university context, students value their universities when there is an involvement by universities and a tool for facilitating students' personal advancement (Voelkl, 1997). It is reasonable in this concept that when universities provide support, the students are likely to feel that they fit their universities or that they are studying at the right universities. Hence, it is rational that university support was a significant variable positively affecting SU fit.

2.2 Teacher Support and Peer Support have positive effects on Learner-Centered Teaching.

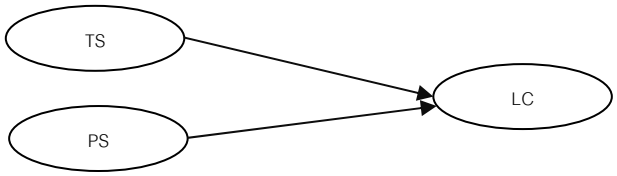


Figure 17 The Effect of Teacher Support and Peer Support on Learner-Centered Teaching

The relationships between teacher support and learner-centered teaching and between peer support and learner-centered teaching were entered into the model. The results revealed that teacher support and peer support had positive effects on learner-centered teaching at a significant level of 0.01. It is deduced that when students recognize support from their teachers and peers, they perceive that learner-center classroom exists.

Drawing on the learner-centered teaching paradigm, this type of learning involves participation between students and other students, and between students and teachers. Both students and teachers act as learners and respect and value each other (Huba & Freed, 2000). They learn from each other. Indeed, learning is enhanced when learners have supportive relationships in their environments (McCombs et al., 2008). It is implied that participation in the classroom occurs when a supportive climate exists. It also appears that two significant agents in the learner-centered classroom are the teachers and peers. Aligned with this current study, teacher support illustrates the perceptions of students on how teachers get involved with them and help them to succeed in their academic lives. Support from teachers typically contributes to helping students achieve their academic goals and helping them resolve their problems. Peer support reflects the perceptions of students about how their peers help and encourage them to succeed at studying, and help them to resolve their problems. It ensures that support from these agents possibly helps students develop positive feelings in the classroom.Hence, if students perceive support from teachers and/or peers, they typically realize that a supportive climate exists in the classroom which is a crucial component of effective learner-centered teaching. Students are more likely to overcome problems in the classroom, which leads them to

collaborate better with others and recognize learner-centered teaching. According to the supportive evidence above, it strengthens the finding of this current research that teacher support and peer support positively affected learner-centered teaching.

3. Indirect Effect

As discuss earlier in this chapter, in regard to the relationships between variables, it seems logical that ethical climate and university support had indirect effects on UCB. The relationship between the SWB and the hierarchy of needs explained earlier shows that when students' needs are fulfilled, they typically gain SWB and this leads students to exhibit more UCB. That is, when students perceive ethical climate and university support from their universities, they have the feeling that their needs are fulfilled by being recognized in a positive way with care, justice, and support from their universities. Hence, it typically helps develop their happiness and leads them to exhibit more UCB.

Objective 2: To Compare the Differences in the Causal Model of UCB BetweenThai and U.S. students

Invariance Analysis Between Thai and U.S. Students

1. Form invariance test, factor loading measurement invariance test, and structural invariance test

The results from the form invariance test revealed that the same pattern of parameters was able to fit the data across both Thai and U.S. models. In addition, the measurement models between both the groups were also equivalent. The differences were found in the structural invariance test. The statistically significant different path coefficients across the Thai and U.S. undergraduate student groups are discussed as follows.

1.1 The U.S. group illustrated greater values of path coefficients than the Thai group for the university engagement to UCB path (0.47 > 0.37).

The findings revealed that the effect of university engagement on UCB in U.S. students was greater than in Thai students. This difference could be explained by cultural differences between the Thai and U.S. groups in two aspects as follows.

First, in regard to social values, Hofstede (1984) stated that personal choices are affected by cultural environment. This means that decision making and actions of

people in each environmentmay be different based on the different cultures. In Thai culture, succeeding in academia is strongly associated with social values. Thai people, in general, have the importance of education instilled in them from a young age. People with a higher education seem to be more powerful in Thai society.

Poothed and Boonsong (2012) compiled information from many resources in order to demonstrate Thai educational values. Their results revealed that Thai people are convinced of the importance of education, and are cultivated in a way that pushes them to focus on studying from a young age, by many sources. For example, there are many Thai idioms they are taught when they are young. Many of these idioms demonstrate knowledge as a treasure. Some idioms reflect that young people have to gain as much knowledge as they can. Some idioms state that people with higher education will become more successful and that being a teacher is respected. The authors also discussed that it is not only Thai idioms that illustrate how much Thai society values education. Thai news and national policies also push parents and schools to encourage students to study. It seems effective in driving students to give importance to education in order to be accepted by their families and society. The research also indicated that Thai students, in general, perceive that getting at least a bachelor's degree helps them to have a good life. It is apparent that Thai students' lives revolve around this value and earning degrees. Thus, when they get to universities and engage at their universities they may focus more on school performance than on exhibiting UCB compared to U.S. students. In considering the definition of UCB, the results from phase one of this study revealed that UCB is a behavior which students willingly perform where threat or punishment are not explicitly involved. Hence, students have the freedom whether or not to exhibit UCB. There is not an implied negative impact when they choose not to perform UCB.

Second, in considering Thai cultural characteristics demonstrated by Hofstede et al. (2010), Thai culture reflects low individualism, whereas U.S. culture reflects the highest individualism compared to all nations. This means that Thai people consider group desires and social norms of ultimate importance. Since Thai students may not be accepted by society without a degree, they possibly pay more attention to academic performance and outcomes when they engage at their university. Moreover, the participants

in this study are education majors. It is reasonable that Thai students may focus more on academic performance, which is in-role behavior rather than on UCB. This is a possible reason that Thai students show this as a weaker relationship than U.S. students, who reflect high individualism in their culture.

1.2 The U.S. group illustrated greater values of path coefficients than the Thai group for the ethical climate to university engagement path (0.49 > 0.42).

The findings revealed that the effect of ethical climate on university engagement in U.S. students was greater than in Thai students. The differences across the Thai and U.S. groups could be explained by cultural characteristics as follows.

According to the power distance index presented by Hofstede et al. (2010), The U.S. shows a smaller power distance than Thailand. The U.S. is a medium power distance society. U.S. people are concerned with democracy and expect to be treated equally (Hofstede, 1984). When it comes to the university context, the student centered process exists and students expect to be treated equally as well. They are able to argue, express disagreement, and express criticisms to their teachers (Hofstede et al., 2010). Barefoot (2004) studied the retention of U.S. students at U.S. universities. The study reviews indicated that one of the reasons that students do not engage at their universities is because of policies and practices at their universities. Thus, ethical climate possibly impacts how students engage with their universities especially in a culture with strong justice concerns.As explained earlier in regard to the educational values in Thailand, Thai students have low individualism and stress over group norms (Hofstede, 1984) and the social value on education. Social pressure might play a vital role in affecting how much Thai students engage at their universities. Thai students need to be accepted socially by having a degree (Poothed and Boonsong, 2012). They may focus more on passing examinations and acquiring degrees (Hofstede, 1984) than on concerning themselves with what is happening at their universities. Even though an ethical climate may not exist, it may not be a major concern for Thai students because they tend to perform in the way that they are expected by their group norms.

Since U.S. students are more individualistic and more concerned with justice and fairness, they are typically more aware of the climate of ethicsat their universities than Thai students. The experiences U.S. students have at their universities are a major factor when students are deciding whether to continue their studies, quit, or transfer (Wintre et al., 2008.) With Thai students, acquiring their degree is more of a concern than their experiences. Changing and quitting universities are typically not the best options for Thai students. Thus, it could be presumed that university engagement may not occur as frequently at U.S. universities, if students do not perceive an ethical climate. Hence, the effect of ethical climate on university engagement was present more with U.S. than Thai students.

1.3 The Thai group illustrated greater values of path coefficients than the U.S. group for the peer support to learner-centered teaching path (0.29 > 0.11).

The findings revealed that the effect of peer support on learner-centered teaching in Thai students was greater than in U.S. students. A possible reason that peer support affected learner-centered teaching in Thai students more than in U.S. students can be explained through cultural differences as follows.

In considering the learner-centered teaching paradigm, learning is enhanced when learners have supportive relationships in their surroundings (McCombs et al., 2008). Thus, an effective learning classroom is a classroom with collaborative. Activities in these classrooms are based on mutual respect between students and teachers (Huba &Freed, 2000). This leads students and teachers to learn from each other. Hence, students are more likely to perceive learner-centered teaching if they perceive support.

In U.S. classrooms, teachers and students act more as equals on the same level (Liberman, 1994). U.S.students are more interactive and open with teachers (Mutjaba, 2008). They directly ask question from teachers when they do not understand something (Hofstede et al., 2010). Sharing feelings and opinions is often encouraged in U.S. classrooms (McMarty et al., 1999). In contrast, Thai students are taught to restrain their feelings and doubts around authorities, which include teachers in the classroom. Expressing theirideas to teachers in the classroom can be viewed as disrespectful. Thai students are expected to carefully listen to what is being said by their teachers (Mutjaba, 2008).Hence,

U.S. students have a closer relationship with their teachers than Thai students do. It could be implied that Thai students perhaps seek help from their peers more than teachers when they participate in classroom activities to avoid directly interacting with their teachers. Even though a learner-centered classroom encourages students to interact more with teachers, Thai etiquette towards elders is deeply ingrained in Thai students. This might be the reason that the distance between students and teachers in the Thai classroom is still substantial. Subsequently, peers seem to have a greater impact on Thai students than on U.S. students. Thus, the effect of peer support on learner-centered teaching on Thai students was greater than U.S. students.

1.4 The Thai group illustrated greater values of path coefficients than the U.S. group for and ethical climate to SWB path (0.67 > 0.52).

The findings revealed that the effect of ethical climate on SWB in U.S. students was greater than in Thai students. The differences across the Thai and U.S. groups could be explained by cultural differences as follows.

This difference can be explained by Hofstede et al. (2010). Thailand is categorized as a country with stronger uncertainty avoidance and has feminine attributes. In contrast, the U.S. is a country that contains weaker uncertainly avoidance and masculine attributes. In a society with strong uncertainty avoidance, people tend to get nervous in situations that they consider to be unclear or unpredictable and they tend to be emotionally weakerthan those inan uncertainly avoidance society. In a feminine society, people stress greatly over interpersonal relationships whereas people ina masculine society have more tolerance towards uncertain situations and are less emotional.

To adopt this across the university context, ethical climate at universities captures a climate of justice where people look out for each other and which considers relationships between members. In contrast, unethical climate at universities typicallyreflects unclear and unfair situations and unpleasant relationships. Thus, Thai students with uncertainly avoidance and feminine attributes can become stressed and become nervous easily if unethical situations occur.Additionally, nervousness is considered as a part of the negative affect (NA) which represents low SWB (Diener, 2000; Watson et al., 1988).Hence, it

is strongly supported why the effect of ethical climates on SWB in Thai students presented a higher value of path coefficient.

2. Latent variable mean difference test

The variables revealed significant differences in means between both groups in university engagement, university support, and ethical climate. The discussion of these mean differences is presented as follows.

2.1 The Thai group demonstrated a higher mean than U.S. group for university engagement.

The results revealed that Thai students significantly engaged with their university more than U.S. students. This can be explained as follows.

Supportive evidence comes from Schwartz (1999). Through the lens of the cultural norm theory, cultural values reflect shared ideas about what is desirable in a society. These values are also adopted in sub-societies to address what behaviors are appropriate and to justify behavioral choices. Schwartz (1999) categorized cultural values into seven types. Thailand strongly reflects the value of hierarchy, which is concerned with the view of the group as a whole. Aligned with Hofstede et al. (2010), Thailand is a country of low individualism and collectivism attributes which also reflect that people are concerned with group norms.

In Thai society, educational values seem to be a strong force that encourages students to attain a degree and finish college.They are encouraged to work hard in school,focus on grades, and strive for a degreeto satisfy social pressure and to be accepted by parents and members in their society (Kim, 2005). Moreover, learning is more often seen as a one-time process. Hence, students have to adapt their skills and virtues and finish their degrees when they are still young (Hofstede et al., 2010).This supports the idea that Thai students are shaped to exhibit behaviors that society and sub-societies acceptand desire by engaging with their universities or showing that they are active in studying and engage with their universities. In contrast, the value mostly reflected in the U.S. is mastery, which gives importance to self-assertion (Schwartz, 1999). The U.S. classroom's aim tends to be to teach students to develop their personal skills instead of focusing on so much on grades (Egmon & Li, 2003; Liberman, 1994).They are taught to learn how to learn, which

means learning never ends. People can still learn after college and in life (Hofstede et al., 2010). Learning does not end at universities but learning is a life-long process. Hence, U.S. students typically pursue their degrees with less stress and value education as a life-long process.Thus, it is possible that the differences in cultures and educational values caused Thai students to present a significantly greater value of mean in university engagement than U.S. students.

2.2 The U.S. group demonstrated a higher mean than the Thai group for university support.

The results revealed that U.S. students significantly perceived support from their universities more than Thai students. The mean difference in university support between Thai and U.S. may vary based on the circumstances of each university. For example, each university may provide different supports to students, which make students perceive different levels of support. However, this study did not aim to compare the means of this variable in this specific aspect. Thus, supports from each university are assumed to be equal, and this discussion only focuses on the cultural differences that possibly make students perceive support from their universities differently.

Power distance seems to be the most helpful concept in explaining the different means of university support between Thai and U.S. students. In considering power distance indicated by Hofstede et al. (2010), Thailand represents a culture with larger power distance, and the U.S. illustrates one with a smaller power distance. In a small power distance society, lower levels rather easily approach higher levels, whereaslower levels in a large power distance society prefer not to approach higher levels. Also, in the academic setting, students in a large power distance society typically position themselves away from higher levels such as teachers and universities. For example, when U.S. students face difficulties or need help, they tend to put university personnel in charge. Theydo not hesitate to ask for help from more powerful agents, which might be teachers or universities. In contrast, Thai students give priority to consulting and interactions with peers who are on the same power level (Archwamety, McFarland,& Tangdhanakanond, 2009). Thus, it can be deduced that power distance is a factor causing the difference in means of university support between Thai and U.S. students.

2.3 The U.S. group demonstrated a higher mean than the Thai group for ethical climate.

The results revealed that U.S. students significantly perceived climate of ethic from their universities more than Thai students. The mean difference in ethical climate between Thai and U.S. students is very complex because some aspects affecting students' perceptions of their universities include rules and policies at each university. Each university has its own rules and policies that best fit its environment and learning culture. To compare the mean difference, the rules and policies would have to be identical. Thus, this discussion only focuses on the cause under the cultural differences aspect.

Besides rules and policies, ethical climate addresses how effects of decision making on members should be a primary concern and should aim to be the best for all members. Even though ethical climate in this study did not focus on specific agents at universities, students typically spent much of their time in the classroom. Thus, it is possible that students use their experience in the classroom in order to assess their perceptions of ethical climate. Therefore, classroom climate was selected as the example to be discussed.

U.S. classrooms are classrooms of individualism (Hofstede et al., 2010)because they are classrooms of open discussion, flexibility, and freedom. Thus, they typically capture more of an ethical climate than Thai classrooms. For example, in students' writings, U.S. students have the freedom to express their feelings and ideas. This is unlike the Asian classroom(including Thai classrooms) where students have to write in the way they are expected (Kim, 2005). Also, in U.S. classrooms teachers act on a similar level as their students (Liberman, 1994),whereas students in Thai classrooms hesitate to speak up unless they are called on by teachers. However, even when they are encouraged to speak, they still cannot honestly speak out because they are taught to restrain their opinions and to not hurt anyone's feelings. Contradiction and confrontation should be avoided (Hofstede et al., 2010). Since Thai culture is a culture of collectivistic, decision making, in general, is typically based on what some people want instead of what is right or wrong or what is the best for all members (Hofstede, 1984). Thus, it reflects the degree ofjustice and injustice occurring at universities. U.S. studentsare less forced by social values. They typically perceive what is right or wrong and act based on their own perceptions.It appears that

group based decision making may override some ethical concerns in a situation where a large group of people are satisfied for Thai students. Thus, it is rational that the mean of ethical climate in U.S. students presented a higher value than in Thai students.

CHAPTER 7
DISCUSSION AND CONCLUSION (MIXED-METHODS)

This study applied exploratory sequential mixed-methods design to develop the construct and scale for university citizenship behavior (UCB). Also, a quantitative phase was added in order to test the causal model of UCB and to compare the differences between the Thai and U.S. undergraduate student groups. This chapter presents discussion of the advantages of applying mixed-methods design for use in this study, implications, and the conclusion.

Discussion

The prototype of the exploratory sequential mixed-methods design of Creswell and Clark (2007) is comprised of two methods. This starts with a qualitative method followed by a quantitative method. This research applied this design by adding another quantitative method at the end, and categorized all three methods into two phases.The first phase started with a qualitative method followed by a quantitative method. The purpose of this first phase was to develop the dimensions, definition, and the behavioral indicators in order to develop a scale for UCB. The second phase was a quantitative phase aiming to test the causal model of UCB and the differences between the Thai and U.S. undergraduate student groups.

In considering the knowledge gaps for the first phase of this study, UCB in prior research provided inadequate information in concept and scale development. Thus, a qualitative method seems to be the effective method to use to conceptualize the dimensions, definition, and to develop the scale for UCB.

In prior research, UCB was developed from organizational citizenship behavior (OCB) based on researchers' perspectives and the reviews. In this current study, the experts in related fields were also interviewed to help strengthen and confirm the idea of development in the beginning. The expert interviews confirmed that UCB could be developed from organizational citizenship behavior (OCB) because these two constructswere similar enough in terms of actions and contexts.Subsequently,

undergraduate students were interviewed to investigate behavioral indicators in order to develop a scale for UCB. The reason that the interviews were conducted with undergraduate students is because they are agents who exhibit UCB. Therefore, it could be deduced that the results from the interviews could help to explainUCB more in-depth than prior concepts.Then, the scale was developed.

However, the limitation of a qualitative method is the reliability of the results when generalizing to another context. Hence, a quantitative method, which has strength in generalization, was employed at the next stage of scale development. The developed scale was then tested with students in Thai and U.S. universities. The results confirmed thatthe developed scale for UCB was reliable and valid. Thus, a combination of qualitative and quantitative methods conducted in this study helps contribute to a better understanding of UCB and to the quality of scale development.

Another concern from the results of the qualitative phase wasthat the developed scale of UCB consisted of seven dimensions, which distinguished it from the prior construct of UCB. Therefore, further confirmation was required. In the second phase, structural equation modeling (SEM) was conducted in order to test the causal model of UCB. This analysis also helped verifythe dimensions underlying UCB gathered from phase one because confirmatory factor analysis (CFA) is required to be conducted prior to the specification of a SEM model (Brown, 2006). CFA is commonly used during the process of scale development because it helps examine the latent structure of the scale. The results indicated that the model fit to the data which means that the seven-dimension model of UCB was confirmed. Thus, this quantitative phase contributes to a better understanding of the dimensions of UCB investigated in the first phase.Next, the causal model of UCB and the differences between the causal model of UCB between Thai and U.S. undergraduate student groups were tested. The results from the second phase presented significant disclosures.

In conclusion, the selected designcontributes to a better understanding of UCB from the bottom up and appears to be a suitable design to use in this current study because it ensures that the results from specific samples of populations from a qualitative method can be generalized to large samples of populations by using a quantitative method (Creswell,

2014). This method answered the research questions and revealed valuable significances and applications. According to the procedures, the results from a qualitative method are useful in order to explore and develop the unclear concept of UCB. The results from a quantitative method help confirm and generalize the developed concept of UCB to be used in a broad variety of ways including gaining knowledge about the casual model of UCB and cultural differences between Thai and U.S. undergraduate student groups.

Implications

Implication in Theory

The results from phase one confirmed that this concept of OCB (Organ, 1988)could be applied as UCB in the academic context and works well with some alterations. The results also expanded the understanding of UCB and clarified some gaps of knowledge. The dimensions and definition of UCB provided more insight, which could explain UCB in more depth. Moreover, the developed scale of UCB was created from student interviews rather than just changing the wording in statements of OCB. This scale could be an alternative tool to help develop the betterment of UCB in the future.

The results from phase two supported that this model of UCB integrated from social exchange theory, and the concept of OCB in the organizational context is effective. This strengthened the concept of exchange through the lens of social exchange theory(Blau,1964). This also expanded the knowledge that organizational construct and variables could be applied in the academic context as stated by Lent et al. (1994) through the lens of the social cognitive theory of career. In addition, the results also illustrated the differences of pathways and latent means across the groups of Thai and U.S. students. This confirmed that cultural differences play a vital role in affecting students in different cultures and caused different outcomes.

Implications for Future Research

This section presents implicationsfrom each perspective according to the design of this study including: qualitative, scale development, and quantitative as follows.

1. Qualitative perspective

1.1 Since the participants in this study were all education majors selected from a few universities in Thailand and the U.S., it may limit the ability to generalize the results. Future studies may replicate this qualitative phase with students from other majors, countries or provincial parts and integrate it with the results from this study in order to investigate a more universal concept of UCB. This universal concept of UCB could potentially be applied to all countries. This may lead to an improved scale for UCB.

1.2 Another aspect to consideris thatexploring UCB in specific areas such as in rural areas could unveil UCB constructs specific to those contexts. For example, universities in rural areas may not have adequate facilities. Students may reflect UCB more in altruism. Qualitative paradigms such as ethnography may also be conducted to answer research questions if researchers have different concerns across different cultures.

2. Scale development perspective

This study was a preliminary investigation of this developed scale for UCB. The UCB constructs investigated in this study areeffectively valid for the study's settings. For future study, the scale should be tested in other academic situations such as students in other majors, universities, or countries to potentially confirm that this scale can be broadly applied to a variety of academic environments.

3. Quantitative perspective

3.1 The results from the causal model of UCB indicated that all variables work collaboratively in affecting UCB, but some hypotheses were not statistically significant. This might be caused by errors in the questionnaires such as the length of the questionnaires, or the limited number of participants.Future studies may test this model again to support the theoretical hypotheses which were not shown to be significant.

3.2 Participants were selected from a few universities in two countries. To broaden the potential of UCB, future research may conduct this model with participants in more diverse groups over majors and/or universities.

3.3 The results revealed differences between UCB of Thai and U.S. undergraduate student groups. Future studies may test this model in other countries in order to potentially strengthen this UCB model.

3.4 This study focused on UCB, which considers extra-role behavior of students at universities. It would be invaluable if future research investigates the relationship between UCB and academic performance. UCB is important but since students spend extra time exhibiting UCB, it may or may not affect their academic performance. However, to achieve a university degree, students have to perform well academically.

3.5 The perspective of cultural differences was used to discuss the differences of the results between Thai and U.S. groups in this study and it seemed to be effective. Future studies may use cultural characteristics as variables in a model to clarify whether cultural differences are significant antecedents of UCB.

Implications for Practice and Development

1. The results from the qualitative phase found that students reflected UCB in seven dimensions, which distinguished it from the prior concept. UCB found in this research could help explain the concept of UCB in more detail and help amplify the feelings of students towards UCB. Thus, it benefits agents at universities to gain a better understanding of UCB, which may lead to future practices or policies.

2. Since the results demonstrated that UCB is a positive behavior that would be beneficial if fostered in students, participatory action research (PAR) may be adopted and conducted in the university context. Researchers may work collaboratively with teachers and students. This student-centered development would help provide understanding into how to foster UCB in students, what procedures students are willing to agree to, and what actions students are willing to exhibit to develop UCB. PAR may help understand how to develop UCB in each specific context because students are deeply involved in all processes.

3. In exploring this scale at universities, this study exclusively investigated students majoring in education and only from specific universities each located in Thailand and the U.S. Because of this, to generalize this developed approach of UCB for use in every situation,universities may need to test this scale before usingit in order to ensure that the scale will be reliable and valid for students in that university.

4. The strong effect of some antecedents of UCB could have important implications for university use in general. The results illustrated that UCB was affected directly by SWB and university engagement. SWB appeared to have a greater effect than university engagement but SWB includes students' traits, which may not be practical for a university to improve on in a short period of time. Turning focus to what helps develop SWB; ethical climate presented the strongest effect on SWB and the strongest indirect effect on UCB. Universities may focus on how to create an ethical climate. From the reviews, students perceive an ethical climate through the rules and policies of their universities and also through people's actions at their universities, including in classrooms. Thus, universities and teachers should be active in creating a climate of positive ethics. At the university level, it might be difficult to change rules in a short period of time due to stakeholders and the complexity of the regulatory structure. Creating an ethical climate in classrooms seems to bea practical start. In fact, ethical climate, learner-centered teaching and teacher support could be simultaneously generated at the classroom level. For example, in setting up classroom rules, teachers need to be open-minded and ask for students' opinions to show that they are concerned about what is the best for them. If students' opinions are not rational or not practical, teachers need to carefully explain why for shared understanding. The reason for each rule should be explained to students to help them perceive a climate of justice and rationality. For activities in class, learner-centered teaching should be conducted and teachers should put themselves at a closer level to their students while teaching. A climate of open debate in the classroom is also practical. It would help students' sense of justice. Working collaboratively also typically helps strengthen relationships between students and other students or students and teachers as well. It perhaps bringsimprovement to the learner-centered teaching classrooms, creates support between students and teachers, and creates congruence between students and their universities. This will typically lead to a greater level of UCB. It appears that the development of UCB involves many agents at the universities. Thus, universities, teachers, and students should be aware and have knowledge about UCB.

5. Even though the results demonstrated that some path coefficients in each set of relationships between the Thai and U.S. groups were different, andthey were also slightly different in means, but the overall causal model was significant. This reflects that indeed the education majors participating in this research from both countries contain similar traits and characteristics. They may be able to integrate these two learning styles for to be more beneficial in each country. For example, the results revealed that Thai students reported a greater mean in university engagement than U.S. students. Thus, U.S. teachers may adapt the Thai learning styles to produce best practices for students to be more engaged with their universities. Teachers may encourage students to realize and value education more than normal because the social value of education caused Thai students to be more engaged with their university. Also, the resultsaddressed that U.S. students perceived a greater level of ethical climate and university support. Thus, Thai teachers may integrate the U.S. classroomstylesand adapt them to the Thai classroom. Thai teachers may encourage more open debate in the classroom which possibly helps students to have more freedom and perceive more ethical climate.By adaptingsome best practices from each other's learning cultures, both Thai and U.S. classrooms could be more effective in generating UCB.

Conclusion

This study developed an exploratory sequential mixed-method design and was comprised of two phases. The purpose of phase one was to conceptualize the dimensions, definition, and develop a scale for UCB. The purpose of the second phase was to develop a causal model of UCB among Thai and U.S. undergraduate students followed by comparing the differences in the model of UCB across these two groups.

The first phase started with a qualitative method by interviewing experts. The results confirmed that UCB could be adapted from OCB. Student interviews were then conducted in order to elicit behavioral indicators representing UCB. The findings presented UCB in seven dimensions, and a developed definition of UCB was revealed. This study indicated two additional dimensions of UCB than was presented in prior studies. The developed definition and dimensions were slightly different in their details but retained the same

concept of UCB asin prior studies. The developed scale for UCB was created by integrating the findings from the student interviews and from prior scales. It was comprised of 35 items, including 31 positive items and four negative items, which reflected UCB in seven dimensions. The evidence showed that this developed scale for UCB was reliable and valid with an overall Cronbach's alpha coefficient of 0.93. Therefore, this scale for UCB could effectively be used to measure undergraduate students in both Thailand and the U.S.

The results from phase two provided an overall model of UCB fit to data by achieving an acceptable standard of goodness fit indices (χ^2= 714.55, **df**= 169, χ^2/**df** = 4.23, RMSEA = 0.072, SRMR = 0.035, CFI = 0.98, NNFI = 0.98). All variables in this model were found to work collaboratively and all positively affected UCB. UCB was directly affected by SWB and university engagement. Learner-centered teaching, university support, and ethical climate illustrated significant direct effects on SWB, while ethical climate and SU fit presented direct effects on university engagement. Ethical climate and university support directly affected SU fit. Finally, university support, teacher support, and peer support were significantly affected by ethical climate.

In testing invariance between the Thai and U.S. undergraduate student groups, the form and measurement model invariance tests appeared to be invariant across the Thai and U.S. groups, whereas they were substantially different in the structural model invariance test. There were four pathways that showed as statistically significant between the groups and significant in each group. They were: (1) university engagement to UCB, (2) ethical climate to SWB, (3) ethical climate to university engagement, and (4) peer support to learner-centered teaching. The final invariance model presented a well fit (χ^2= 995.09, **df** = 367, χ^2/**df** = 2.71, RMSEA = 0.074, SRMR = 0.045, CFI = 0.98, NNFI = 0.98). Finally, for the latent variable mean difference test, the Thai group demonstrated a significantly higher mean than the U.S. group in university engagement, whereas the U.S. group showed a significantly greater mean than the Thai group in university support and ethical climate.

In considering the results of this study, it could be implied that UCB is a behavior that students should be fostered to exhibit at universities in both Thailand and the U.S.This behavior could benefit universities and also students in many aspects. The significant variables such as ethical climate, university engagement, and SWB should be considered

while creating or developing rules and policies at universities and in classrooms. This could help benefit universities to produce students with high UCB. Culture is another possible crucial factor influencing UCB and the relationships between the variables. Hence, universities should be concerned with creating practices that promote UCBin students both in the classroom and in the overall universitysetting for potentially the best outcomes.

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APPENDIX

Appendix A

Questionnaires

Informed Consent Form

Date ..../..../....

Name:.....Sex: .....

Age:.....Major: .....

Tel:.....Email: .....

Title of the research: DEVELOPING THE CONSTRUCT OF UNIVERSITY CITIZENSHIP BEHAVIOR AND TESTING THE CAUSAL MODEL: A CROSS-CULTURAL STUDY OF THE UNDERGRADUATE STUDENTS IN THAILAND AND THE U.S.

This doctoral research aims to investigate the causal model of University Citizenship Behavior in undergraduate students from both Thailand and the U.S.

If you agree to participate in this study you will be asked to complete a survey concerning your actions and perceptions at and about your university.

The information you provide will not be used in a manner which would allow identification of your individual responses. Your information will be kept confidential and will not be used for any other purpose except this research. After this research is concluded, your information will be destroyed.

Your participation in this study is voluntary. You can withdraw from this study at any time if you feel uncomfortable. There will be no negative consequences if you chose to not participate in this study.

For further information about this study please contact Mr. Panupong U-thaiwat. E-mail: ucb.thesis@gmail.com.

Signature……..

Signature……

(……..) (……..)

Participant Researcher

Questionnaire

Instruction: Please check the box and rate the following statement as they apply to you while you are at university.

Part 1: Demographic Information

1. Sex ☐Male ☐ Female

2. Major.....

3. Year of study.....

4. Age.....

5. Accumulative GPA

☐0.00 – 1.00 ☐1.01 – 2.00

☐2.01 – 3.00 ☐3.01 – 4.00

6. Clubs or organizations you belong to at this university.

.....

.....

.....

Part 2: University Citizenship Behavior (UCB)

No.	Statements	Extremely True	True	Moderately	Slightly True	Not True At All
1	I listen to my friends when they talk about their life problems.					
2	I help my friends when they have problems with their homework.					
3	I help friends with difficult academic lessons.					
4	I give time to help friends when i see that they are struggling.					
5	I provide help to my friends when they ask for it.					
6	I help teachers to facilitate the learning process: passing out papers, preparing computers, etc.					
7	I participated in student government or other clubs that potentially make my university a better place.					
8	I am proud to tell everyone which university I study at.					
9	I stay focused on my goals at university because I value education.					
10	I put in a lot of effort at my university.					
11	I instill my actions at this university with a positive attitude.					

No.	Statements	Extremely True	True	Moderately	Slightly True	Not True At All
12	I help to develop the community outside of my university when they need help.					
13	When people from outside my university ask me about my university I always focus on positive aspects and try to give them accurate information.					
14	I take good care of my university's campus and environment: pick up trash, don't litter, keep the campus clean, etc.					
15	I prepare before class by reading and doing homework.					
16	I don't hesitate to raise my ideas and speak my mind when teachers ask.					
17	I don't answer questions in class because there will always be other students who can answer.					
18	I play on my phone when I'm in class because it is common nowadays.					
19	I am mindful of how my behavior affects other students' work.					
20	I inform teachers and/or friends in advance when I know I won't be able to attend class or a meeting.					
21	Even if I have a problem with teachers I don't talk negatively behind that teachers' backs.					
22	I dress appropriately for attending class.					
23	I spend a lot of time complaining and focusing on trivial matters.					
24	When an inconvenient situation occurs I am patient and take time before saying anything or taking any actions.					
25	When I get bad grades I always review my work before blaming it on the teachers.					
26	I politely inform someone in charge when there is something broken on campus: the electricity shuts off, water shuts off, a computer is broken, etc.					
27	I am willing to try out or join new clubs to gain new experiences.					
28	When I don't understand alesson I look for resources to answer my questions.					
29	I am eager to learn.					

No.	Statements	Extremely True	True	Moderately	Slightly True	Not True At All
30	I listen to other people's ideas and points of view, even if they contradict mine, to help expand my knowledge.					
31	I am social with friends to help maintain my relationships.					
32	I normally am the person who approaches new people to make friends.					
33	I try and make connections with organizations both inside and outside of my university.					
34	I don't always speak politely to university staff.					
35	I always talk to teachers outside of the classroom.					

Part 3: Subjective well-being

No.	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	In most ways my life is close to my ideal.					
2	The conditions of my life are excellent.					
3	I am satisfied with my life.					
4	So far I have gotten the important things I want in life.					
5	If I could live my life over, I would change almost nothing.					
6	For the most part, I am satisfied with the education I can get at this university.					
7	I'm satisfied with my teachers' competency at this university.					
8	I'm satisfied with the extent to which my education will be useful for my future.					
9	I'm satisfied with the activities which positively affect my academic capability provided by this university.					
10	So far, I'm not satisfied with the experience I've had at my university.					

To what extend in general do you have these following feeling?

No.	Statements	Extremely	Quite a bit	Moderately	A little	Not at all
1	interested					
2	excited					
3	strong					
4	enthusiastic					
5	proud					
6	alert					
7	inspired					
8	attentive					
9	active					
10	determined					

Part 4: University Engagement

No.	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	I am very resilient, mentally, as far as my studies are concerned.					
2	I feel strong and vigorous when I'm studying or going to class.					
3	Studying for long periods of time is not easy for me.					
4	I have plenty of energy to gain knowledge at this university.					
5	I am enthusiastic about my studies.					
6	To me, my studies are challenging.					
7	I think that my studies are full of meaning and purpose.					
8	The knowledge I've gained at my university is useful for my future career.					
9	I don't feel happy when I am studying intensely.					
10	I 'm highly engaged when I am studying.					
11	Time flies when I am studying.					
12	I feel that detaching myself from my studies is difficult.					

Part 5: Student-University Fit

No.	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	The courses available at this university match my interests.					
2	I know other students here whose academic interests match my own.					
3	All subjects provided in my major are interesting me.					
4	There is a good fit between what my schoolwork offers me and what I am looking for in schoolwork.					
5	The attributes that I look for in schoolwork are not fulfilled well by my present studies.					
6	This university gives me adequate facilities outside of the classroom based on my needs.					
7	The match is very good between the demands of my schoolwork and my personal ability.					
8	My personal learning ability and academic background provide a good match with the demands that my schoolwork places on me.					
9	My ability is a good fit for the requirements of my schoolwork.					

Part 6: University support

No.	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	My university cares about students' opinions.					
2	My university is willing to help me if I need special accommodations.					
3	My university provides basic facilities.					
4	My university doesn't provide adequate equipment in the classroom.					
5	My university provides enough aids to facilitate the learning process.					
6	My university doesn't supports student created activities.					
7	My university cares about its students' welfare in university.					
8	My university emphasizes student health.					

Part 7: Teacher Support

No.	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	My teachers are not easy to talk to about things besides academia.					
2	My teachers are easy to talk to about academic subjects.					
3	My teachers push me to succeed.					
4	My teachers want me to do well.					
5	My teachers don't care about what happens to me.					
6	My teachers create and maintain a relationship with me.					
7	My teachers make me feel that I belong in class.					
8	My teachers provide extra time to talk to me outside of the classroom.					

Part 8: Peer Support

No.	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	My friends help me complete my assignments.					
2	My friends help explain to me when I don't understand my lessons.					
3	My friends never encourage me to study.					
4	My friends motivate me to take my classes seriously.					
5	My friends let me know they would help with anything whenever I need it.					
6	My friends give me good advice about living at my university.					
7	My friends make me feel better when I face difficulties.					
8	My friends always help me out even when it's not involving academic problems.					

Part 9: Learner-Centered Teaching

No.	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	My teachers give me an opportunity to express my own thoughts and beliefs.					
2	My teachers help me understand different points of view.					
3	My teachers help me put new information together with what I already know so it makes sense to me.					
4	My teachers help me see how I can reflect on my thinking and learning.					
5	My teachers ask me to listen to my classmates' opinions even when I don't agree with them.					
6	My teachers encourage me to work with other students when I have trouble with an assignment.					
7	My teachers encourage me to come up with solutions which will help me understand a lesson.					
8	My teachers don't use my ideas for activities or discussions in class.					

Part 10: Ethical Climate

No.	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	In this university, people look out for each other's good.					
2	The effect of decisions on its members is a primary concern in this university.					
3	There is no room for one's own personal morals or ethics at this university.					
4	The first consideration of the university members is whether a decision violates any rules.					
5	Everyone is expected to stick by university rules and procedures.					
6	Successful people in this university don't go by the book.					
7	It is expected from the university that you will always do what is right for everyone at this university.					
8	In this university, the major concern of the university procedure is always what is best for all the members.					

หนังสือให้ความยินยอมเข้าร่วมในโครงการวิจัย

วันที่ .....

ข้าพเจ้า.....อายุ.....ปีอยู่บ้านเลขที่.....ถนน.....หมู่ที่.....แขวง/ตำบล.....เขต/อำเภอ.....จังหวัด.....โทรศัพท์.....

ขอทำหนังสือนี้ให้ไว้ต่อหัวหน้าโครงการวิจัยเพื่อเป็นหลักฐานแสดงว่า

ข้อ 1. ข้าพเจ้าได้รับทราบโครงการวิจัยของ นายภาณุพงศ์ อุทัยวัฒน์

เรื่อง Developing the Construct of University Citizenship Behavior and Testing the Causal Model: A Cross-Cultural Study of Undergraduate Students in Thailand and the U.S.A.

ข้อ 2. ข้าพเจ้ายินยอมเข้าร่วมโครงการวิจัยนี้ด้วยความสมัครใจโดยมิได้มีการบังคับขู่เข็ญ หลอกลวงแต่ประการใดและจะให้ความร่วมมือในการวิจัยทุกประการ

ข้อ 3. ข้าพเจ้าได้รับการอธิบายจากผู้วิจัยเกี่ยวกับวัตถุประสงค์ของการวิจัยวิธีการวิจัยประสิทธิภาพความปลอดภัยอาการหรืออันตรายที่อาจเกิดขึ้นรวมทั้งแนวทางป้องกันและแก้ไขหากเกิดอันตรายค่าตอบแทนที่จะได้รับค่าใช้จ่ายที่ข้าพเจ้าจะต้องรับผิดชอบจ่ายเองโดยได้อ่านข้อความที่มีรายละเอียดอยู่ในเอกสารชี้แจงผู้เข้าร่วมโครงการวิจัยโดยตลอดอีกทั้งยังได้รับคำอธิบายและตอบข้อสงสัยจากหัวหน้าโครงการวิจัยเป็นที่เรียบร้อยแล้วและตกลงรับผิดชอบตามคำรับรองในข้อ 5 ทุกประการ

ข้อ 4. ข้าพเจ้าได้รับการรับรองจากผู้วิจัยว่าจะเก็บข้อมูลส่วนตัวของข้าพเจ้าเป็นความลับจะเปิดเผยเฉพาะผลสรุปการวิจัยเท่านั้น

ข้อ 5. หากข้าพเจ้ามีข้อข้องใจเกี่ยวกับขั้นตอนของการวิจัยหรือหากเกิดผลข้างเคียงที่ไม่พึงประสงค์จากการวิจัยสามารถติดต่อกับนายภาณุพงศ์ อุทัยวัฒน์

ข้อ 6. หากข้าพเจ้าได้รับการปฏิบัติไม่ตรงตามที่ระบุไว้ในเอกสารชี้แจงผู้เข้าร่วมการวิจัยข้าพเจ้าจะสามารถติดต่อกับประธานคณะกรรมการจริยธรรมสำหรับการพิจารณาโครงการวิจัยที่ทำในมนุษย์หรือผู้แทนได้ที่ฝ่ายวิจัยคณะแพทยศาสตร์มหาวิทยาลัยศรีนครินทรวิโรฒโทรศัพท์ 0-3739-5085-6 ต่อ 60428-9

ข้าพเจ้าได้อ่านและเข้าใจข้อความตามหนังสือนี้โดยตลอดแล้วเห็นว่าถูกต้องตามเจตนาของข้าพเจ้าจึงได้ลงลายมือชื่อไว้เป็นสำคัญพร้อมกับหัวหน้าโครงการวิจัยและต่อหน้าพยาน

ลงชื่อ	ลงชื่อ .....
(.....)	(.....)
ผู้ยินยอม / ผู้แทนโดยชอบธรรม	ผู้ให้ข้อมูลและขอความยินยอม/หัวหน้าโครงการวิจัย
ลงชื่อ .....พยาน	ลงชื่อ .....พยาน
(.....)	(.....)

แบบสอบถามงานวิจัย

DEVELOPING THE CONSTRUCT OF UNIVERSITY CITIZENSHIP BEHAVIOR AND TESTING THE CAUSAL MODEL: A CROSS-CULTURAL STUDY OF THE UNDERGRADUATE STUDENTS IN THAILAND AND THE U.S.

คำชี้แจง

ขอให้ท่านโปรดอ่านคำชี้แจงของแต่ละตอนก่อนตอบแบบสอบถาม และกรุณาตอบแบบสอบถามให้ครบถ้วน แบบสอบถามงานวิจัยนี้แบ่งออกเป็น 12 ตอน ประกอบด้วย

ตอนที่ 1 ข้อมูลทั่วไปเกี่ยวกับตัวนิสิต

ตอนที่ 2 พฤติกรรมการเป็นสมาชิกที่ดีของมหาวิทยาลัย

ตอนที่ 3 ความพึงพอใจในชีวิต

ตอนที่ 4 ความพึงพอใจในการศึกษา

ตอนที่ 5 อารมณ์ทางบวก

ตอนที่ 6 ความผูกพันกับมหาวิทยาลัย

ตอนที่ 7 ความเข้ากันได้ระหว่างตนเองและมหาวิทยาลัย

ตอนที่ 8 การได้รับการสนับสนุนจากมหาวิทยาลัย

ตอนที่ 9 การได้รับการสนับสนุนจากครู

ตอนที่ 10 การได้รับการสนับสนุนจากเพื่อน

ตอนที่ 11 การเรียนการสอนที่เน้นผู้เรียนเป็นศูนย์กลาง

ตอนที่ 12 บรรยากาศจริยธรรม

เนื่องด้วยผู้วิจัยซึ่งเป็นนักศึกษาระดับปริญญาเอก สาขาวิชาการวิจัยพฤติกรรมศาสตร์ประยุกต์ มหาวิทยาลัยศรีนครินทรวิโรฒ ผู้วิจัยจึงขอความร่วมมือนิสิตซึ่งได้รับการเลือกให้เป็นตัวแทนในการให้ข้อมูลโดยตอบแบบสอบถามนี้ตามความเป็นจริง ข้อมูลที่ได้จะนำไปใช้ในการพัฒนาบุคคลและสังคมต่อไป ข้อมูลของนักเรียนจะไม่ถูกนำไปเปิดเผยเป็นรายบุคคลแต่จะนำเสนอเป็นข้อมูลโดยรวมจากการวิจัยเท่านั้น และไม่มีผลกระทบต่อการเรียนแต่ประการใด

ผู้วิจัยขอขอบคุณที่นิสิตให้ความร่วมมือครั้งนี้อย่างดียิ่ง

ตอนที่ 1 ข้อมูลทั่วไปเกี่ยวกับตัวนิสิต

คำแนะนำ : กรุณาทำเครื่องหมาย✓ลงในช่อง☐ และกรอกข้อมูลในช่องว่าง

1. เพศ ☐ ชาย ☐หญิง

2. คณะ/ภาควิชา .....

3. ชั้นปี.....

4. อายุ.....

5. ผลการเรียนเฉลี่ยสะสม (GPA)

☐0.00 – 1.00 ☐1.01 – 2.00

☐2.01 – 3.00 ☐3.01 – 4.00

6.กิจกรรมในมหาวิทยาลัยที่เข้าร่วมหรือเคยเข้าร่วม

.....

.....

..

ตอนที่ 2 พฤติกรรมการเป็นสมาชิกที่ดีของมหาวิทยาลัย

คำแนะนำ : กรุณาอ่านข้อความแต่ละประโยคให้เข้าใจแล้วพิจารณาว่าท่านปฏิบัติพฤติกรรมเหล่านั้นในมหาวิทยาลัย โดยให้ทำเครื่องหมาย ✓ลงในช่องที่ตรงกับระดับความเป็นจริงที่สุด

ข้อ	ข้อคำถาม	จริงที่สุด	จริง	ปานกลาง	ไม่จริง	ไม่จริงเลย
1.	ฉันรับฟังเพื่อน เมื่อพวกเขาพูดคุยกับฉันเกี่ยวกับปัญหาต่างๆ ในชีวิต					
2.	ฉันช่วยเพื่อน เวลาเพื่อนมีปัญหาในการทำการบ้าน					
3.	ฉันช่วยอธิบายเนื้อหายากๆ ให้กับเพื่อนๆ					
4.	ฉันสละเวลาเพื่อช่วยเหลือเพื่อนๆ เมื่อฉันเห็นว่าพวกเขากำลังประสบปัญหา					
5.	ฉันช่วยเหลือเพื่อนๆ เมื่อพวกเขาร้องขอเสมอ					
6.	ฉันช่วยอาจารย์เพื่อให้การเรียนการสอนดำเนินไปด้วยความราบรื่น เช่น ช่วยแจกเอกสาร หรือช่วยจัดเตรียมอุปกรณ์คอมพิวเตอร์ เป็นต้น					
7.	ฉันเข้าร่วมองค์กรนักศึกษาหรือชมรมต่างๆ ที่มีส่วนช่วยในการพัฒนามหาวิทยาลัย					
8.	ฉันภูมิใจที่จะบอกกับใครๆ ว่าฉันเรียนอยู่ที่มหาวิทยาลัยแห่งใด					
9.	ฉันมีความมุ่งมั่นกับเป้าหมายทางการเรียน เพราะฉันเห็นคุณค่าของการศึกษา					
10.	ฉันทุ่มเทอย่างสุดความสามารถในการทำงานด้านต่างๆ ในมหาวิทยาลัย					
11.	พฤติกรรมต่างๆ ที่ฉันแสดงออกในมหาวิทยาลัย ล้วนมีพื้นฐานมาจากทัศนคติที่ดี					
12.	ฉันช่วยเหลือชุมชนภายนอกมหาวิทยาลัยเมื่อพวกเขาต้องการความช่วยเหลือ					

ข้อ	ข้อคำถาม	จริงที่สุด	จริง	ปานกลาง	ไม่จริง	ไม่จริงเลย
13.	เมื่อมีบุคคลภายนอกสอบถามฉันเกี่ยวกับมหาวิทยาลัย ฉันมักจะนำเสนอด้านดีๆ และเน้นให้ข้อมูลที่ถูกต้อง					
14.	ฉันใส่ใจดูแลรักษาสิ่งแวดล้อมภายในรั้วมหาวิทยาลัย ไม่ว่าจะด้วยการเก็บขยะ การไม่ทิ้งสิ่งของเรี่ยราด หรือการรักษาความสะอาด					
15.	ฉันเตรียมความพร้อมก่อนเข้าเรียนด้วยการอ่านเนื้อหาล่วงหน้าและทำการบ้าน					
16.	ฉันไม่ลังเลที่จะแสดงความคิดเห็น เมื่ออาจารย์สอบถาม					
17.	ฉันไม่ตอบคำถามในห้องเรียน เพราะทุกครั้งจะมีนิสิตคนอื่นที่สามารถตอบได้อยู่เสมอ					
18.	ฉันเล่นโทรศัพท์มือถือในชั้นเรียน เพราะถือว่าเป็นเรื่องปกติของยุคสมัยนี้					
19.	ฉันตระหนักดีว่าการกระทำต่างๆ ของฉันส่งผลกระทบต่องานส่วนรวม					
20.	ฉันแจ้งอาจารย์ และ/หรือ เพื่อนๆ เสมอ เมื่อฉันทราบว่าฉันไม่สามารถเข้าเรียนหรือเข้าร่วมประชุมได้					
21.	ถึงแม้ฉันจะมีปัญหากับอาจารย์ แต่ฉันก็ไม่พูดถึงอาจารย์ลับหลังในทางเสียหาย					
22.	ฉันแต่งกายอย่างเหมาะสมทุกครั้งเวลาเข้าเรียน					
23.	ฉันใช้เวลาส่วนใหญ่ไปกับการตำหนิและจดจ่อกับปัญหาเล็กๆ น้อยๆ ที่เกิดขึ้น					
24.	เมื่อสถานการณ์ไม่พึงประสงค์เกิดขึ้นในมหาวิทยาลัยฉันจะอดทนและใช้เวลาก่อนที่จะพูดหรือแสดงออก					
25.	เวลาที่ฉันได้ผลการเรียนไม่ดี ฉันทบทวนตนเองก่อนเสมอ ก่อนที่จะโทษว่าเป็นความผิดของอาจารย์					
26.	หากอุปกรณ์ในมหาวิทยาลัยใช้การไม่ได้ เช่น ไฟฟ้าดับ น้ำไม่ไหล หรือคอมพิวเตอร์ใช้งานไม่ได้ ฉันจะแจ้งบุคคลผู้เกี่ยวข้องอย่างสุภาพ					
27.	ฉันยินดีที่จะลองทำกิจกรรมหรือเข้าร่วมชมรมต่างๆ ที่ฉันไม่เคยลอง เพื่อสั่งสมประสบการณ์ใหม่ๆ					
28.	เมื่อฉันไม่เข้าใจในบทเรียน ฉันสืบค้นจากแหล่งข้อมูลหลายๆ แหล่ง เพื่อตอบคำถามเหล่านั้น					
29.	ฉันกระตือรือร้นที่จะเรียนรู้					
30.	ฉันรับฟังความคิดของผู้อื่น ถึงแม้ว่าจะแตกต่างจากความเห็นของฉัน เพื่อเพิ่มพูนความรู้ของตนเอง					
31.	ฉันมีปฏิสัมพันธ์กับเพื่อนๆเพื่อรักษาความสัมพันธ์ที่มี					
32.	โดยปกติแล้วฉันจะเป็นฝ่ายเข้าหาและสานสัมพันธ์กับเพื่อนใหม่ก่อน					
33.	ฉันพยายามสร้างเครือข่ายความสัมพันธ์กับองค์กรทั้งในและนอกมหาวิทยาลัย					
34.	ฉันมักจะไม่พูดคุยกับเจ้าหน้าที่มหาวิทยาลัยด้วยความสุภาพ					
35.	ฉันมักจะพูดคุยกับอาจารย์นอกห้องเรียนเสมอๆ					

ตอนที่ 3 ความพึงพอใจในชีวิต

คำแนะนำ : กรุณาอ่านข้อความแต่ละประโยคให้เข้าใจแล้วพิจารณาว่าท่านเห็นด้วยกับข้อคำถามหรือไม่โดยให้ทำเครื่องหมาย ✓ลงในช่องที่ตรงกับระดับความเห็นด้วยมากที่สุด

ข้อ	ข้อคำถาม	เห็นด้วยอย่างยิ่ง	เห็นด้วย	ปานกลาง	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างยิ่ง
1.	โดยภาพรวมแล้ว ชีวิตของฉันมีความใกล้เคียงกับชีวิตในอุดมคติ					
2.	สภาวะแวดล้อมต่างๆ ในชีวิตของฉันดีเยี่ยม					
3.	ฉันมีความพึงพอใจในชีวิต					
4.	จวบจนปัจจุบันนี้ ฉันได้รับสิ่งสำคัญที่ฉันต้องการในชีวิตของฉันแล้ว					
5.	ถ้าฉันสามารถย้อนกลับไปในอดีตได้ ฉันแทบที่จะไม่อยากแก้ไขอะไรในชีวิตเลย					

ตอนที่ 4 ความพึงพอใจในการศึกษา

คำแนะนำ : กรุณาอ่านข้อความแต่ละประโยคให้เข้าใจแล้วพิจารณาว่าท่านเห็นด้วยกับข้อคำถามหรือไม่โดยให้ทำเครื่องหมาย ✓ลงในช่องที่ตรงกับระดับความเห็นด้วยมากที่สุด

ข้อ	ข้อคำถาม	เห็นด้วยอย่างยิ่ง	เห็นด้วย	ปานกลาง	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างยิ่ง
1.	โดยรวมแล้ว ฉันพึงพอใจกับการศึกษาที่ฉันสามารถได้รับจากมหาวิทยาลัยนี้					
2.	ฉันพึงพอใจกับความสามารถของอาจารย์ฉัน					
3.	ฉันพึงพอใจกับการศึกษาที่ฉันได้รับ ซึ่งจะมีประโยชน์ต่อฉันในอนาคต					
4.	ฉันพึงพอใจกับกิจกรรมต่างๆ ที่มหาวิทยาลัยจัดขึ้น เนื่องจากกิจกรรมเหล่านั้นส่งผลให้ฉันเป็นบุคคลที่มีความสามารถทางการศึกษามากขึ้น					
5.	จวบจนปัจจุบัน ฉัน<u>ไม่พึงพอใจ</u>กับประสบการณ์ทางการศึกษาที่ฉันได้รับจากมหาวิทยาลัยนี้					

ตอนที่ 5 อารมณ์ทางบวก

คำแนะนำ : กรุณาอ่านข้อความแต่ละประโยคให้เข้าใจ แล้วพิจารณาว่าโดยทั่วไปแล้ว ท่านมีความรู้สึกเหล่านี้บ่อยเพียงใด โดยให้ทำเครื่องหมาย ✓ลงในช่องที่ตรงกับระดับความถี่มากที่สุด

ข้อ	ความรู้สึก	บ่อยที่สุด	บ่อย	ปานกลาง	ไม่บ่อย	ไม่เคยเลย
1.	สนใจ					
2.	ตื่นเต้น					
3.	เข้มแข็ง					
4.	กระตือรือร้น					
5.	ภาคภูมิใจ					
6.	ตื่นตัว					
7.	มีแรงบันดาลใจ					
8.	ใส่ใจ					
9.	คล่องแคล่ว					
10.	ตั้งใจ					

ตอนที่ 6 ความผูกพันกับมหาวิทยาลัย

คำแนะนำ : กรุณาอ่านข้อความแต่ละประโยคให้เข้าใจ แล้วพิจารณาว่าท่านเห็นด้วยกับข้อคำถามหรือไม่ โดยให้ทำเครื่องหมาย ✓ลงในช่องที่ตรงกับระดับความเห็นด้วยมากที่สุด

ข้อ	ข้อคำถาม	เห็นด้วยอย่างยิ่ง	เห็นด้วย	ปานกลาง	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างยิ่ง
1.	ตราบใดก็ตามที่เกี่ยวข้องกับการศึกษาจิตใจของฉันมีความหยุ่นตัว เมื่อมีสิ่งใดมากระทบจิตใจ จิตใจของฉันสามารถกลับคืนสู่สภาพเดิมได้					
2.	ฉันรู้สึกมีพลังและกระฉับกระเฉง เวลาที่ฉันเรียนหนังสือหรือเข้าชั้นเรียน					
3.	การเรียนติดต่อกันเป็นเวลานานๆ เป็นเรื่องที่ไม่ง่ายสำหรับฉัน					
4.	ฉันเต็มเปี่ยมไปด้วยพลังที่จะค้นคว้าหาความรู้ ในมหาวิทยาลัยแห่งนี้					
5.	ฉันกระตือรือร้นเกี่ยวกับการเรียน					
6.	การศึกษาเป็นสิ่งท้าทาย					
7.	การศึกษาของฉันเต็มเปี่ยมไปด้วยความหมายและเป้าหมาย					
8.	ความรู้ที่ฉันที่ได้รับจากมหาวิทยาลัยนี้มีประโยชน์กับฉันในอนาคต					
9.	ฉันไม่มีความสุขเวลาตั้งใจเรียนอย่างจริงจัง					
10.	ฉันมีความจดจ่ออย่างมากขณะเรียนหนังสือ					
11.	เวลาผ่านไปอย่างรวดเร็ว เวลาที่ฉันเรียนหนังสือ					
12.	ฉันรู้สึกว่าการเอาตัวออกจากการเรียนเป็นสิ่งที่ยาก					

ตอนที่ 7 ความเข้ากันได้ระหว่างตนเองและมหาวิทยาลัย

คำแนะนำ : กรุณาอ่านข้อความแต่ละประโยคให้เข้าใจแล้วพิจารณาว่าท่านเห็นด้วยกับข้อคำถามหรือไม่โดยให้ทำเครื่องหมาย ✓ลงในช่องที่ตรงกับระดับความเห็นด้วยมากที่สุด

ข้อ	ข้อคำถาม	เห็นด้วยอย่างยิ่ง	เห็นด้วย	ปานกลาง	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างยิ่ง
1.	เนื้อหาที่เปิดสอนในมหาวิทยาลัย มีความเข้ากันกับความสนใจของฉัน					
2.	ฉันรู้จักนักเรียนคนอื่น ที่มีความสนใจทางการศึกษาที่เข้ากันได้กับฉัน					
3.	ทุกรายวิชาที่เปิดสอนในสาขาที่ฉันเรียน มีความน่าสนใจ					
4.	ภาระทางการเรียนที่ฉันได้รับมีความพอเหมาะพอดีกับภาระทางการเรียนที่ฉันคาดหวัง					
5.	ฉันรู้สึกว่า ความรู้ความสามารถที่ฉันได้รับไม่เพียงพอกับที่ฉันคาดหวังเอาไว้					
6.	มหาวิทยาลัยจัดหาสิ่งอำนวยความสะดวกนอกชั้นเรียน ได้เพียงพอกับต้องการของฉัน					
7.	ปริมาณของภาระทางการเรียนที่ฉันได้รับมีความเข้ากันได้กับศักยภาพที่ฉันมี					
8.	ความรู้และความสามารถในการเรียนที่ฉันมี มีความเข้ากันได้ดีกับภาระทางการเรียนที่ฉันได้รับมอบหมาย					
9.	ความสามารถของฉัน มีความเหมาะสมกับภาระทางการเรียนที่ฉันได้รับมอบหมาย					

ตอนที่ 8 การได้รับการสนับสนุนจากมหาวิทยาลัย

คำแนะนำ : กรุณาอ่านข้อความแต่ละประโยคให้เข้าใจ แล้วพิจารณาว่าท่านเห็นด้วยกับข้อคำถามหรือไม่ โดยให้ทำเครื่องหมาย ✓ลงในช่องที่ตรงกับระดับความเห็นด้วยมากที่สุด

ข้อ	ข้อคำถาม	เห็นด้วยอย่างยิ่ง	เห็นด้วย	ปานกลาง	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างยิ่ง
1.	มหาวิทยาลัยใส่ใจกับความคิดเห็นของนิสิต					
2.	มหาวิทยาลัยเต็มใจที่จะช่วยเหลือฉัน ถ้าฉันต้องการความช่วยเหลือเป็นพิเศษ					
3.	มหาวิทยาลัยมีการจัดเตรียมสิ่งอำนวยความสะดวกพื้นฐาน					
4.	มหาวิทยาลัยไม่มีการจัดเตรียมอุปกรณ์ที่ใช้ในการเรียนการสอนในชั้นเรียนได้อย่างเพียงพอ					
5.	มหาวิทยาลัยให้ความช่วยเหลือที่เกี่ยวข้องกับกระบวนการเรียนการสอนได้อย่างเพียงพอ					
6.	มหาวิทยาลัยไม่ให้การสนับสนุนกิจกรรมต่างๆ ที่นิสิตจัดขึ้น					
7.	มหาวิทยาลัยให้ความใส่ใจต่อความสะดวกสบายของนิสิต					
8.	มหาวิทยาลัยให้ความสำคัญกับสุขภาพของนิสิต					

ตอนที่ 9 การได้รับการสนับสนุนจากอาจารย์

คำแนะนำ : กรุณาอ่านข้อความแต่ละประโยคให้เข้าใจ แล้วพิจารณาว่าท่านเห็นด้วยกับข้อคำถามหรือไม่ โดยให้ทำเครื่องหมาย ✓ลงในช่องที่ตรงกับระดับความเห็นด้วยมากที่สุด

ข้อ	ข้อคำถาม	เห็นด้วยอย่างยิ่ง	เห็นด้วย	ปานกลาง	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างยิ่ง
1.	ฉันไม่สามารถพูดคุยกับอาจารย์ได้ง่าย ในเรื่องที่ไม่เกี่ยวข้องกับการศึกษา					
2.	ฉันสามารถพูดคุยกับอาจารย์ได้ง่ายในเรื่องที่เกี่ยวข้องกับการศึกษา					
3.	อาจารย์ผลักดันให้ฉันประสบความสำเร็จ					
4.	อาจารย์อยากให้ฉันได้ดี					
5.	อาจารย์ไม่ใส่ใจกับสิ่งต่างๆ ที่เกิดขึ้นกับฉัน					
6.	อาจารย์สร้างและดำรงความสัมพันธ์ที่ดีกับฉัน					
7.	อาจารย์ทำให้ฉันรู้สึกว่าฉันเป็นส่วนหนึ่งของชั้นเรียน					
8.	อาจารย์จัดหาเวลาพิเศษนอกชั้นเรียนเพื่อพูดคุยกับฉัน					

ตอนที่ 10 การได้รับการสนับสนุนจากเพื่อน

คำแนะนำ : กรุณาอ่านข้อความแต่ละประโยคให้เข้าใจ แล้วพิจารณาว่าท่านเห็นด้วยกับข้อคำถามหรือไม่ โดยให้ทำเครื่องหมาย ✓ลงในช่องที่ตรงกับระดับความเห็นด้วยมากที่สุด

ข้อ	ข้อคำถาม	เห็นด้วยอย่างยิ่ง	เห็นด้วย	ปานกลาง	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างยิ่ง
1.	เพื่อนช่วยให้ฉันสามารถทำการบ้านให้สำเร็จ					
2.	เพื่อนช่วยอธิบาย เวลาที่ฉันไม่เข้าใจบทเรียน					
3.	เพื่อนไม่เคยให้กำลังใจฉันในการเรียนหนังสือ					
4.	เพื่อนกระตุ้นให้ฉันตั้งใจเรียนอย่างจริงจังมากขึ้น					
5.	เพื่อนแสดงออกให้เห็นว่าเขาพร้อมที่จะช่วยเหลือเวลาที่ฉันต้องการความช่วยเหลือ					
6.	เพื่อนให้คำแนะนำที่ดีในการใช้ชีวิตในมหาวิทยาลัย					
7.	เพื่อนทำให้ฉันรู้สึกดีขึ้นเวลาที่ฉันประสบปัญหาต่างๆ ในมหาวิทยาลัย					
8.	เพื่อนให้ความช่วยเหลือฉันเสมอ ถึงแม้จะไม่เกี่ยวข้องกับการเรียนก็ตาม					

ตอนที่ 11 การเรียนการสอนที่เน้นผู้เรียนเป็นศูนย์กลาง

คำแนะนำ : กรุณาอ่านข้อความแต่ละประโยคให้เข้าใจ แล้วพิจารณาว่าท่านเห็นด้วยกับข้อคำถามหรือไม่ โดยให้ทำเครื่องหมาย ✓ลงในช่องที่ตรงกับระดับความเห็นด้วยมากที่สุด

ข้อ	ข้อคำถาม	เห็นด้วยอย่างยิ่ง	เห็นด้วย	ปานกลาง	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างยิ่ง
1.	อาจารย์เปิดโอกาสให้ฉันแสดงความคิดเห็นในชั้นเรียน					
2.	อาจารย์ช่วยทำให้ฉันเข้าใจความคิดเห็นที่แตกต่าง					
3.	อาจารย์ช่วยให้ฉันสามารถผนวกความรู้ใหม่เข้ากับฐานความรู้เดิมที่ฉันมีอยู่					
4.	อาจารย์ช่วยเหลือฉันในการสะท้อนความคิดและการเรียนรู้ของฉัน					
5.	อาจารย์ให้ฉันรับฟังความคิดเห็นของเพื่อนร่วมชั้นเรียน ถึงแม้ว่าฉันจะไม่เห็นด้วยก็ตาม					
6.	อาจารย์กระตุ้นให้ฉันศึกษาหาความรู้ร่วมกับเพื่อนร่วมชั้นเรียน เวลาที่ฉันเกิดปัญหาหรือข้อสงสัยกับงานที่ได้รับมอบหมาย					
7.	อาจารย์กระตุ้นให้ฉันพยายามค้นหาคำตอบหรือวิธีการแก้ปัญหาด้วยตนเอง ซึ่งมีส่วนช่วยให้ฉันเข้าใจในบทเรียนมากขึ้น					
8.	อาจารย์ไม่นำความคิดเห็นของฉันไปใช้ในการจัดกิจกรรมหรือสนทนาแลกเปลี่ยนความเห็นในชั้นเรียน					

ตอนที่ 12 บรรยากาศจริยธรรม

คำแนะนำ : กรุณาอ่านข้อความแต่ละประโยคให้เข้าใจ แล้วพิจารณาว่าท่านเห็นด้วยกับข้อคำถามหรือไม่ โดยให้ทำเครื่องหมาย ✓ลงในช่องที่ตรงกับระดับความเห็นด้วยมากที่สุด

ข้อ	ข้อคำถาม	เห็นด้วยอย่างยิ่ง	เห็นด้วย	ปานกลาง	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างยิ่ง
1.	บุคคลในมหาวิทยาลัยให้ความใส่ใจซึ่งกันและกัน					
2.	สิ่งที่มหาวิทยาลัยตระหนักเป็นอันดับต้นๆ คือผลกระทบต่อตัวบุคคลที่เกิดจากการตัดสินใจต่างๆ ของมหาวิทยาลัย					
3.	มหาวิทยาลัยไม่เปิดโอกาสให้บุคคลปฏิบัติตามความเชื่อหลักและคุณธรรมที่เขายึดถือ					
4.	สิ่งสำคัญอันดับแรกในมหาวิทยาลัย คือการพิจารณาว่าการตัดสินใจนั้นๆ ขัดต่อกฎระเบียบหรือไม่					
5.	มหาวิทยาลัยคาดหวังให้บุคคลยึดถือกฎระเบียบอย่างเคร่งครัด					
6.	บุคคลที่ประสบความสำเร็จในมหาวิทยาลัย คือบุคคลที่ไม่ได้ปฏิบัติตามกฎระเบียบอย่างเคร่งครัด					
7.	มหาวิทยาลัยคาดหวังให้บุคคลปฏิบัติสิ่งที่ถูกต้องสำหรับทุกคน					
8.	แนวทางปฏิบัติต่างๆ ที่ถูกกำหนดขึ้นในมหาวิทยาลัยนี้ได้ให้ความตระหนักถึงสิ่งที่ดีที่สุดสำหรับทุกคนเป็นหลัก					

Appendix B

The Results From CFA of Measurement Models

1. UCB

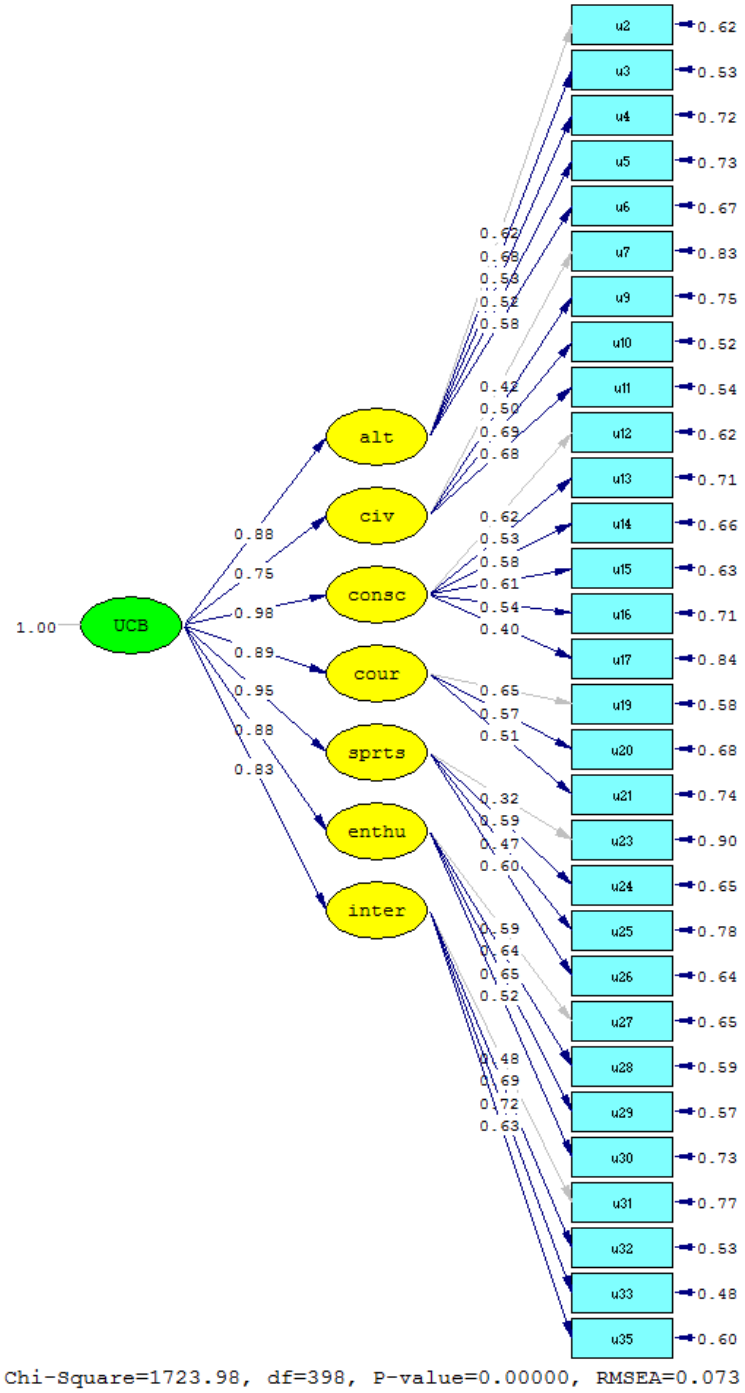

Figure B.1 Measurement Model of UCB

Table B.1

Factor Loading and Construct Reliability of UCB

Item	Factor loading of items	Factor loading of dimensions	Construct reliability of dimensions	Construct reliability of UCB
Altruism				
2	0.62	0.88	0.724	0.952
3	0.68			
4	0.53			
5	0.52			
6	0.58			
Civic virtue				
7	0.42	0.75	0.665	
9	0.50			
10	0.69			
11	0.68			
Conscientiousness				
12	0.62	0.98	0.713	
13	0.53			
14	0.58			
15	0.61			
16	0.54			
17	0.40			
Courtesy				
19	0.65	0.89	0.600	
20	0.57			
21	0.51			
Sportsmanship				
23	0.32	0.95	0.569	
24	0.59			
25	0.47			
26	0.60			
Information seeking				
27	0.59	0.88	0.693	
28	0.64			
29	0.65			
30	0.52			
Interpersonal relationships				
31	0.48	0.83	0.727	
32	0.69			
33 0.72				
35	0.63			
χ^2 = 1723.98, **df**= 398, χ^2/**df** = 4.34, RMSEA = 0.073, SRMR = 0.061, CFI = 0.95, NNFI = 0.94				

2. SWB

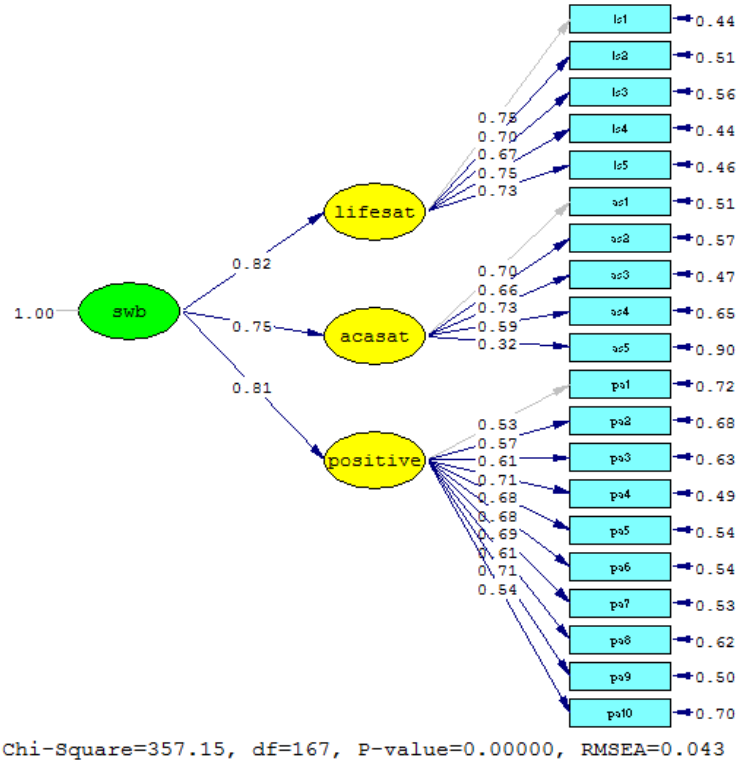

Figure B.2 Measurement Model of SWB

Table B.2

Factor Loading and Construct Reliability of SWB

Item	Factor loading of items	Factor loading of dimensions	Construct reliability of dimensions	Construct reliability of SWB
Life Satisfaction				
1	0.75	0.82	0.843	0.836
2	0.70			
3	0.67			
4	0.75			
5	0.73			
Academic Satisfaction				
1	0.70	0.75	0.744	
2	0.66			
3	0.73			
4	0.59			
5	0.32			
PA				
1	0.53	0.81	0.758	
2	0.57			
3	0.61			
4	0.71			
5	0.68			
6	0.68			
7	0.69			
8	0.61			
9	0.71			
10	0.54			
χ^2 = 357.15, **df**= 167, χ^2/**df** = 2.14, RMSEA = 0.043, SRMR = 0.039, CFI = 0.99, NNFI = 0.98				

3. University Engagement

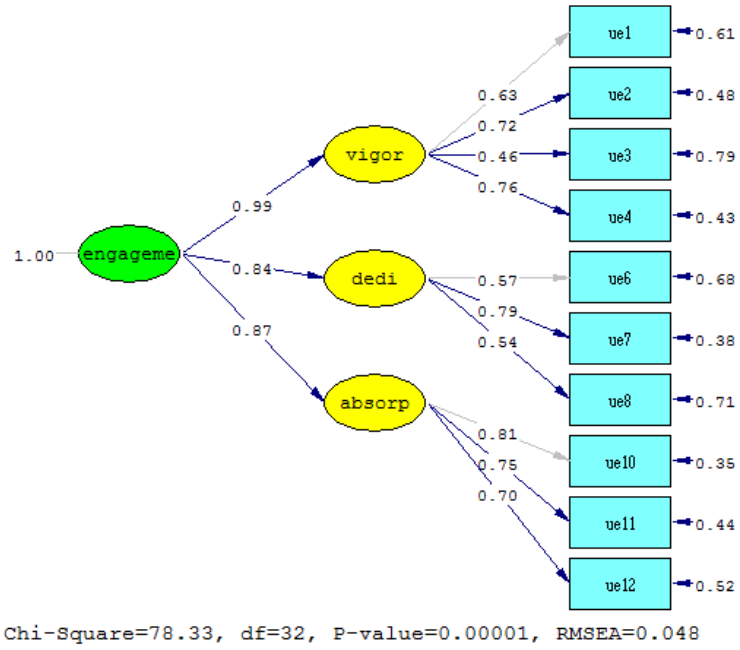

Figure B.3 Measurement Model of University Engagement

Table B.3

Factor Loading and Construct Reliability of University Engagement

Item	Factor loading of items	Factor loading of dimensions	Construct reliability of dimensions	Construct reliability of University Engagement
Vigor				
1	0.63	0.99	0.742	0.929
2	0.72			
3	0.46			
4	0.76			
Dedication				
6	0.57	0.84	0.672	
7	0.79			
8	0.54			
Absorption				
10	0.81	0.87	0.798	
11	0.75			
12	0.70			
χ^2 = 78.33, df= 32, χ^2/df = 2.45, RMSEA = 0.048, SRMR = 0.039, CFI = 0.99, NNFI = 0.99				

4. SU fit

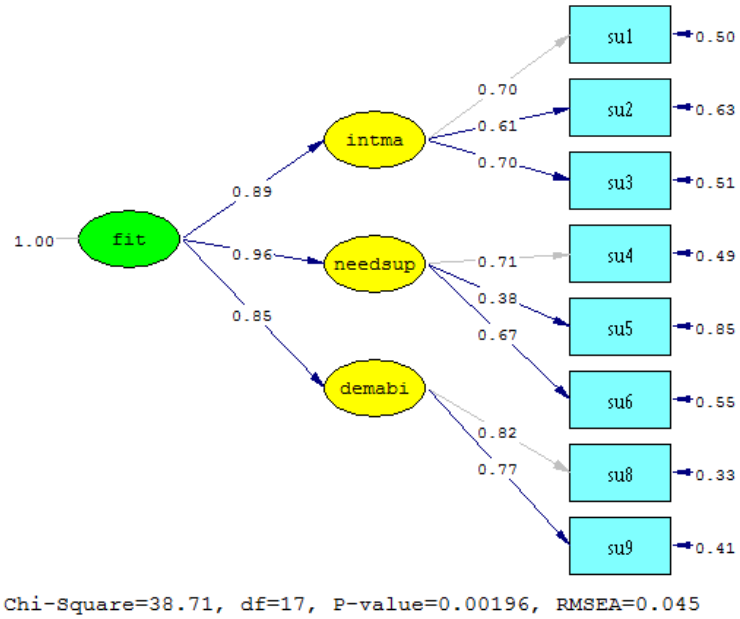

Figure B.4 Measurement Model of SU Fit

Table B.4

Factor Loading and Construct Reliability of SU Fit

Item	Factor loading of items	Factor loading of dimensions	Construct reliability of dimensions	Construct reliability of SU fit
Interest-Major Fit				
1	0.70	0.89	0.710	0.914
2	0.61			
3	0.70			
Needs-Supplies Fit				
4	0.71	0.96	0.619	
5	0.38			
6	0.67			
Demands-Abilities Fit				
8	0.82	0.85	0.774	
9	0.77			
χ^2= 38.71, **df**= 17, χ^2/**df** = 2.25, RMSEA = 0.045, SRMR = 0.026, CFI = 0.99, NNFI = 0.99				

5. University Support

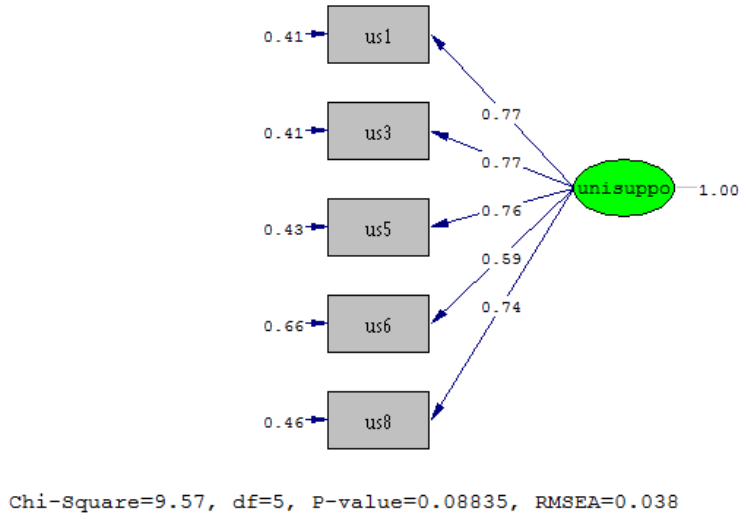

Figure B.5 Measurement Model of University Support

Table B.5

Factor Loading and Construct Reliability of University Support

Item	Factor loading of items	Construct reliability
1	0.68	0.914
3	0.62	
5	0.60	
6	0.59	
8	0.60	
χ^2= 9.75, **df**= 5, χ^2/**df** = 1.91, RMSEA = 0.038, SRMR = 0.016, CFI = 1.00, NNFI = 0.99		

6. Teacher Support

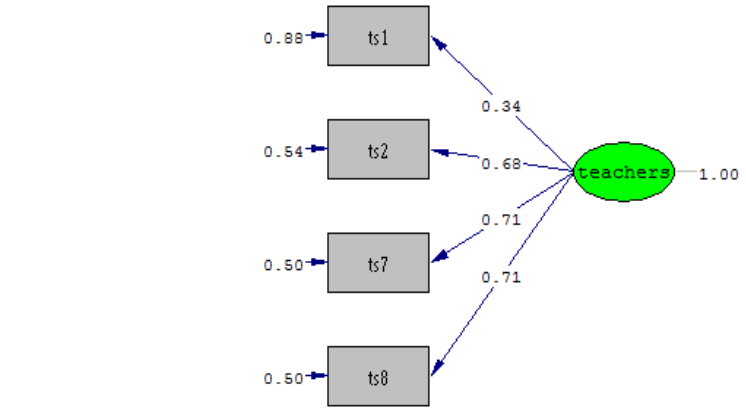

Figure B.6 Measurement Model of Teacher Support

Table B.6

Factor Loading and Construct Reliability of Teacher Support

Item	Factor loading of items	Construct reliability
1	0.34	0.712
2	0.46	
7	0.49	
8	0.63	
χ^2 = 4.43, **df**= 2, χ^2/**df** = 2.22, RMSEA = 0.044, SRMR = 0.018, CFI = 1.00, NNFI = 0.95		

7. Peer Support

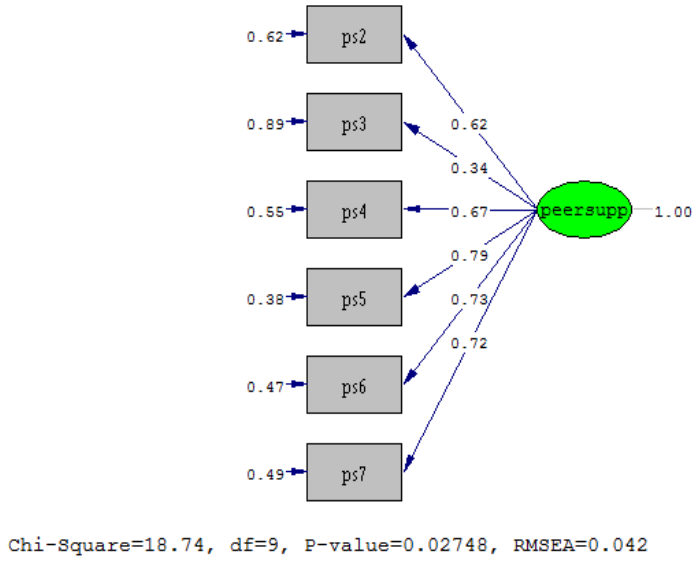

Figure B.7 Measurement Model of Peer Support

Table B.7

Factor Loading and Construct Reliability of Peer Support

Item	Factor loading of items	Construct reliability
2	0.40	0.774
3	0.35	
4	0.51	
5	0.54	
6	0.52	
7	0.50	
χ^2= 18.74, **df**= 9, χ^2/**df** = 2.08, RMSEA = 0.042, SRMR = 0.023, CFI = 0.99, NNFI = 0.99		

8. Learner-Centered Teaching

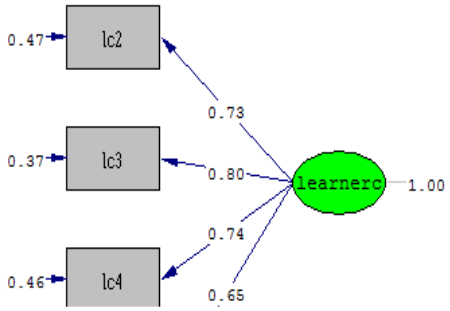

Figure B.8 Measurement Model of Learner-Centered Teaching

Chi-Square=0.76, df=2, P-value=0.68306, RMSEA=0.000

Table B.8

Factor Loading and Construct Reliability of Learner-Centered Teaching

Item	Factor loading of items	Construct reliability
2	0.47	0.821
3	0.52	
4	0.49	
7	0.44	
χ^2= 0.76, **df**= 2, χ^2/**df** = 0.38, RMSEA = 0.051, SRMR = 0.054, CFI = 1.00, NNFI = 1.00		

9. Ethical Climate

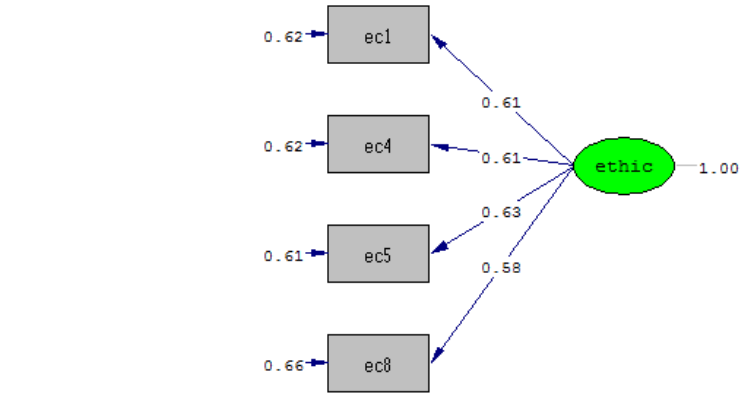

Figure B.9 Measurement Model of Ethical Climate

Table B.9

Factor Loading and Construct Reliability of Ethical Climate

Item	Factor loading of items	Construct reliability
1	0.46	0.701
4	0.46	
5	0.43	
8	0.42	
χ^2= 5.6, **df**= 2, χ^2/**df** = 2.8, RMSEA = 0.054, SRMR = 0.019, CFI = 0.99, NNFI = 0.98		

Appendix C

Experts for Content Validity Test of Measurements

Appendix C: Experts for Content Validity Test of Measurements

1. Dr. Jaruwan Sakulku, Educator, Thammasart University
2. Asst.Prof.Dr. Kanda Janyam, Educator, Prince of Songkla University
3. Asst.Prof.Dr. Khahan Na Nan, Educator, Rajamangala University of Technology Thanyaburi
4. Asst.Prof.Dr. Poschanan Niramitchainont, Educator, Mahidol University
5. Dr. Richard Wolf, Former educator, Missisippy State University
6. Dr. Sudarat Tuntivivat, Educator, Srinakharinwirot University
7. Dr. Itsara Boonyarit, Educator, Chaingmai University

Appendix D

Confirmation of Ethical Clearance for Research

MF4Version1:15/7/2556

ใบรับรองจริยธรรมการวิจัยของข้อเสนอการวิจัย

เอกสารข้อมูลคำอธิบายสำหรับผู้เข้าร่วมการวิจัยและใบยินยอม

หมายเลขข้อเสนอการวิจัย SWUEC– 160/59E

ข้อเสนอการวิจัยนี้และเอกสารประกอบของข้อเสนอการวิจัยตามรายการแสดงด้านล่าง ได้รับการพิจารณาจากคณะกรรมการสำหรับพิจารณาโครงการวิจัยที่ทำในมนุษย์ของมหาวิทยาลัยศรีนครินทรวิโรฒแล้ว คณะกรรมการฯ มีความเห็นว่าข้อเสนอการวิจัยที่จะดำเนินการมีความสอดคล้องกับหลักจริยธรรมสากล ตลอดจนกฎหมาย ข้อบังคับและข้อกำหนดภายในประเทศ จึงเห็นสมควรให้ดำเนินการวิจัยตามข้อเสนอการวิจัยนี้ได้

ชื่อโครงการวิจัยเรื่อง: การพัฒนาและทดสอบโครงสร้างความสัมพันธ์ของพฤติกรรมการเป็นสมาชิกที่ดีของมหาวิทยาลัย: การศึกษาข้ามวัฒนธรรมของนิสิตนักศึกษาในประเทศไทยและสหรัฐอเมริกา

ชื่อผู้วิจัยหลัก: นายภาณุพงศ์ อุทัยวัฒน์

สังกัด: สถาบันวิจัยพฤติกรรมศาสตร์ มหาวิทยาลัยศรีนครินทรวิโรฒ

เอกสารที่รับรอง:

1. แบบเสนอโครงการวิจัย
2. โครงร่างการวิจัย
3. เอกสารชี้แจงผู้เข้าร่วมการวิจัย
4. หนังสือให้ความยินยอมเข้าร่วมโครงการวิจัย

เอกสารที่พิจารณาทบทวน

1. แบบเสนอโครงการวิจัย	ฉบับที่ 2 วัน/เดือน/ปี 26 ม.ค. 2559
2. โครงร่างการวิจัย	ฉบับที่ 2 วัน/เดือน/ปี 26 ม.ค. 2559
3. เอกสารชี้แจงผู้เข้าร่วมการวิจัย	ฉบับที่ 2 วัน/เดือน/ปี 26 ม.ค. 2559
4. หนังสือให้ความยินยอมเข้าร่วมโครงการวิจัย	ฉบับที่ 2 วัน/เดือน/ปี 26 ม.ค. 2559

(ลงชื่อ).....

(อาจารย์ แพทย์หญิงจันทร์ทรา ตนันท์ยุทธวงศ์)

เลขานุการคณะกรรมการจริยธรรมการวิจัยในมนุษย์

(ลงชื่อ).....

(แพทย์หญิงสุรีพร ภัทรสุวรรณ)

ประธานคณะกรรมการจริยธรรมการวิจัยในมนุษย์

หมายเลขรับรอง : SWUEC/E–176/2559

วันที่ให้การรับรอง : 14/07/2559

วันหมดอายุใบรับรอง : 14/07/2560

VITAE

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B.Eng.	(2008)	Kasetsart University, Bachelor of Engineering (Chemical)
MA.CA.	(2013)	Siam University, Master of Arts in Communication Arts (Advertising) (Scholarship)
M.S. / Ph.D.	(2017)	Srinakharinwirot University, Doctor of Philosophy in Applied Behavioral Science Research