Expressing Opinions: Interacting among self-efficacy, motivation, a collectivist culture and technology

Nantawan Chuarayapratib

Faculty of Liberal Arts, Thammasat University

Abstract

This study examines students' investigates: 1) students' attitudes toward the requirement to express their opinions in a reading classroom; and 2) the manner in which they interact with one another via Moodle. This study was conducted with 18 Thammasat university students who were taking EG 222 during semester 2/2012. The research methodology included Discussion Board posting demonstration, think-aloud protocols, interviews and questionnaires. It was found that students' attitudes towards the activity were complex. Students realized that it was beneficial to them, especially when they considered that they needed the skills to express themselves, to listen to other peoples' opinions and to modify their own opinion in the workplace. However, the students who lacked self-efficacy tended to remain silent because they needed more time to create their responses. Thus, not many students derived full benefits from classroom discussion. With Moodle, in contrast, the students did not have to respond spontaneously. They were also influenced by a collectivist culture and had a strong desire for approval from their friends and teacher. These two factors motivated them to employ strategies that helped them create effective responses on Discussion Board.

Keywords: Discussion Board, a collectivist culture, self-efficacy

พฤติกรรมของนักศึกษาเมื่อโต้ตอบผ่านกระดานสนทนา แสดงให้เห็นถึงปฏิสัมพันธ์ระหว่างการรับรู้ความสามารถของตนเอง แรงจูงใจ วัฒนธรรมที่คำนึงถึงความรู้สึกผู้อื่น และเทคโนโลยี

นันทวัน ชูอารยะประทีป
คณะศิลปศาสตร์ มหาวิทยาลัยธรรมศาสตร์

บทคัดย่อ

งานวิจัยชิ้นนี้มีวัตถุประสงค์เพื่อศึกษาทัศนคติของนักศึกษาที่มีต่อกิจกรรมแสดงความคิดเห็นซึ่งเป็นกิจกรรมบังคับในชั้นเรียนการอ่านและพฤติกรรมของนักศึกษาในการโต้ตอบทางกระดานสนทนา   มีนักศึกษามหาวิทยาลัยธรรมศาสตร์ จำนวน 18 คน ที่เรียนวิชา อ.222 ภาค 2/2555 ร่วมงานวิจัยครั้งนี้ ระเบียบวิธีการวิจัยมีการสาธิตการโต้ตอบทางกระดานสนทนา การคิดออกเสียง การสัมภาษณ์ และแบบสอบถาม ผลการวิจัยแสดงพบว่าทัศนคติของนักศึกษาต่อกิจกรรมดังกล่าวมีความซับซ้อน   นักศึกษาตระหนักว่ากิจกรรมดังกล่าวมีประโยชน์กับตนเอง   โดยเฉพาะอย่างยิ่งเมื่อนักศึกษาคำนึงถึงว่าตนเองจำเป็นต้องมีทักษะในการแสดงความคิดเห็น   ในการรับฟังความคิดเห็นของผู้อื่น และในการปรับความคิดเห็นของตนเวลาทำงาน อย่างไรก็ตาม   นักศึกษาที่ขาดการรับรู้ความสามารถของตนเองมีแนวโน้มที่จะเงียบเพราะนักศึกษาเหล่านี้ต้องการเวลามากกว่าในการที่จะเรียบเรียงคำตอบของตน ดังนั้น มีจำนวนนักศึกษาไม่มากนักที่ได้รับประโยชน์อย่างเต็มที่ในการแสดงความคิดเห็นในห้องเรียน ในทางกลับกัน เมื่อนักศึกษาแสดงความเห็นผ่านโปรแกรม Moodle นักศึกษาไม่ต้องโต้ตอบทันทีทันใด นอกจากนั้นนักศึกษายังได้รับอิทธิพลของวัฒนธรรม ที่คำนึงถึงความรู้สึกผู้อื่นทำให้มีความประสงค์อย่างมากที่จะให้เพื่อนและอาจารย์พอใจ องค์ประกอบทั้งสองประการนี้เป็นแรงจูงใจให้นักศึกษาใช้กลวิธีการต่าง ๆ เพื่อช่วยให้ตนสร้างคำตอบที่มีประสิทธิภาพในกระดานสนทนา

คำสำคัญ กระดานสนทนา วัฒนธรรมที่คำนึงถึงความรู้สึกผู้อื่น การรับรู้ความสามารถของตนเอง

1. Introduction

1.1 Background of the Study

Scholars have examined the relationship between classroom discussion and learning (e.g. Hiltz, 1990; Perez, 2000). Classroom discussion is related to sociocultural theory of learning, which believes that instead of passively receiving knowledge, people engage actively in its construction. By sharing ideas and perspectives with others and defending and arguing about their own perceptions they engage in the process of meaning making. In this way, they can construct new knowledge and reorganize prior knowledge from this interaction process (Kang and Im, 2013).

Thus, classroom discussion is an important activity. In the class where this study was carried out, EG 222, *Reading for Opinions*, a basically reading class, students were also required to engage in classroom discussion because it is believed that classroom discussion, as a socially meaningful activity between students, serves as an important instrument of thinking, enhancing the students' skills in analyzing, synthesizing, criticizing and reasoning. Such thinking skills are in accordance with the BA (English) curriculum's philosophy.

Unfortunately, however, scholars (Chen, 2003; Cheng, 2000; Jackson, 2002; Liu and Littlewood, 1997; Tani, 2005) find that in ESL/EFL contexts, students are expected to communicate in English when studying English. A lot of them usually feel uncomfortable having to participate in classroom discussion because English is not their native language. Reasons for this include the fact that they do not feel confident enough in their English proficiency to offer their opinions for fear of making mistakes. Research has also shown that students who are from a collectivist culture feel that classroom discussion is not natural to them (Warden, Chen, and Caskey, 2005). As a teacher of EG 222 for more than 10 times, I notice that not many students participated in classroom discussion. I wonder whether the students appreciated this activity. After all, this was a reading class. Did they consider it irrelevant to express their opinions in my class?

As an instructor, I have to find an environment in which the students feel comfortable to participate. I believe that having students interact online can help them communicate with one another in English. In contrast to face-to-face discussion, online discussion has been found to allow "flexibility in the time, place and pace of communication" (Williams, 2002, p. 266). It also gives students time to reflect on the messages they receive and send without the pressure of immediate response (Biesenbach-Lucas, 2003), the pressure that represents a common barrier to participation for ESL students.

In this study, the students were asked to interact via Discussion Board. Scholars have examined advantages of utilizing Moodle, a popular e-Learning system. Escobar-Rodriguez and Monge-Lozana (2012) and Liaw (2008) for instance, state that the program enables students to participate and collaborate in extensive learning opportunities using synchronous and asynchronous communication tools outside the classroom.

Through Moodle, learners can choose convenient time and place to learn according to their interest and the level of knowledge (Pituch and Lee, 2006). Moreover, Moodle has been designed to support the socio-constructivist pedagogy which encourages learners to work collaboratively with other students. It is hoped that they will achieve understanding that derives from the processes of interacting with their classmates.

1.2 Objectives of the Study

1.2.1 To find the students' attitude toward the requirement to express their opinions in an EFL reading classroom.

1.2.2 To see how the students interact with one another via Moodle.

1.3 Research questions

1.3.1 What are the students' attitudes toward the requirement to express their opinions in an EFL reading classroom?

1.3.2 In what way do the students interact with one another online?

2. Literature Review

2.1 Sociocultural theory of learning

This part focuses on Vygotsky's (1978, 1986) sociocultural theory and its application in second and foreign language learning and teaching. A sociocultural perspective assumes that "learning and development emerge and are shaped by the social, cultural and historical contexts in which individuals engage in meaningful and purposeful joint activity" (Donato, 2004, p. 295). In the same veins, Lave and Wenger (1991) state that learning is not an individual activity that stands on its own; rather it is accomplished through participation in social practices. Wells (2000) argues that "the formation of individual persons, their identities, values and knowledgeable skills, occurs through their participation in some subset of these activity systems" (p. 67). Thus, considering learning only as the acquisition of isolated skills or items of information does not represent the whole picture because learning "involves the whole person and contributes to the formation of individual identity" (p. 2).

Social constructivism believes it crucial for meaning-making to take place in real situations, which almost always include other people. Interaction with those other people plays an important role in meaning-making and therefore in teaching and learning.

According to Jonassen et al., (1995), for example, instruction is more effective when it takes place in an environment that encourages learners to use socially mediated and intellectual tools, such as language. Social construction theorists describe learning as "a social, dialogical process in which communities of practitioners socially negotiate the meaning of phenomena. ...Learning is conversation, and the thinking and intelligence of a community of performers or learners is distributed throughout the group" (p. 9).

This study focuses on interaction on Discussion Board. Many scholars (i.e. Escobar-Rodriguez and Monge-Lozana, 2012; Liaw, 2008; and Perez, 2000) state that this activities is conductive to learning because students have ample opportunities to interact with one another. It is interesting to see how the students behave in this environment.

2.2 The Thai society as a collectivist society

Scholars such as Hofstede (2001) and Kim (1994) examine characteristics of cultural collectivism. People in this kind of culture are integrated into strong, cohesive society. They are protected by it in exchange for unquestioning loyalty. In these cultures, group welfare is more important than personal goals. Hofstede also analyzes the Thai culture dimensions. According to his analysis, Thailand is a collectivist country where "people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty" (Hofstede and Hofstede 2005, p. 76). One influential concept in the Thai society is that an individual should do the right thing according to the group's standard. Nobody wants to see anyone more outstanding than himself. Being outstanding from the group can bring dissatisfaction or bad reputation to an individual because he can be seen as a threat for the group (Hofstede, 2001).

Closely related to characteristics of a collectivist culture is the concept of face. Goffman (1967) defines face as "the positive social value a person effectively claims for himself by the line others assume he has taken during a particular contact" (p. 7). Goffman goes on to state that "face is an image of (the) self delineated in terms of approved social attributes" (p. 7).

A notable aspect of Goffman's definition of face is the casting of face as a positive image; it is the positive way we hope others think of us. Included in Goffman's

definition of face is the idea that there exist "approved social attributes" (p. 7). These approved social attributes help shape the face a person claims for herself.

The concept of face is also the focus of Brown and Levinson (1987)'s notion of politeness. To them, face is seen as a kind of public 'self-image. It refers to two basic wants of every individual: (1) to be approved of by others (positive face), and (2) to have his/her actions and thoughts unimpeded by others (negative face). Brown and Levinson go on to explore face-threatening acts (FTAs). A distinction can be made between FTAs which threaten positive face and those which threaten negative face. Positive face threatening acts show that the speaker does not care about hearer's positive face. Negative face threatening acts, in contrast, restrict the hearer's desire for personal freedom.

3. Research Methodology

3.1 Setting, participants and triangulation

The participants of this study were 18 Thammasat university students who were taking EG 222, a reading course. They were either second-year or third-year students. Their average English score when they took the university entrance examination was 70.14. This class met regularly twice a week on Wednesdays and Fridays for 16 weeks. Normally, there were a variety of activities in EG 222. Each unit began with a reading passage and comprehension questions. Then the students were required to engage in a class discussion. After that argumentative features such as the author's use of concession were emphasized. I decided to add participation of web board discussion for this class. In the third week of the semester, I asked my students to post the topic that they would like to discuss with their friends in the Moodle forum. The detailed procedure of this study is discussed in 3.1.2.

In this study, various methods were used to help reduce or eliminate the threats to validity. According to Maxwell (1996), triangulation is "collecting information from a diverse range of individuals and settings, using a variety of methods" (p.93). A researcher can be more confident with a result if different methods lead to the same result. Research methods used to collect data were questionnaires, interviews, think aloud protocols, video stimulated recall, and field notes.

3.1.1 Research Instruments

3.1.1.1 Questionnaires

From the literature review, we find that attitude plays an important role in determining the level of the students' participation. I decided to employ questionnaires because they allow me to collect data about the students' attitudes in many aspects. They were divided into two parts. The first part concerned demographic information about the participants such as their majors. The second part included statements about students' attitudes on the course requirements to participate in class discussion. There were questions about factors associated with the level of participation in class discussion, external motivation and influences of a collectivist culture. The form of 5 point Likert-type scale ranging from *Strongly Agree* to *Strongly Disagree* was employed. To establish the questionnaires' reliability, I assessed internal consistency using Cronbach's alpha. The score was 0.821.

3.1.1.2 Interviews

In this study, I used interviews to find out the participants' beliefs and attitudes concerning expressing their opinions in class and on Discussion Board. These questions were related to questions in the questionnaires. For example, a question in the questionnaire was:

	เห็นด้วยอย่างยิ่ง	เห็นด้วย	เป็นกลาง	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างยิ่ง
ท่านรู้สึกสบายใจเมื่อต้องโต้ตอบกับเพื่อนโดยผ่านกระดานสนทนามากกว่าในห้องเรียน					

To get deeper information from the participants on this aspect, I asked open-ended questions: Why is discussing with your friends on the Discussion Board is more comfortable? Instead of imposing a set of answer categories such as *agree, disagree* or *strongly disagree*, I used open-ended questions so that the participants could elaborate as much as possible. The students were given opportunities to express their opinions and provide their insight about the topic. Then, I gradually directed the interviews to a variety of specific topics that needed to be explored in depth.

3.1.1.3 Think aloud protocols

I would like to find the students' internal cognitive process when they wrote on the Discussion Board so I also asked the students to think aloud. Think-aloud protocol requires a research subject to verbalize whatever thoughts come to his mind out loud while performing a task at hand. In this study, I asked each participant to meet me individually with me in a quiet room. First, I briefly reviewed the think-aloud procedures and let the participant read all instructions for the tasks. He was allowed to ask questions about the instructions only. I told him that I was interested in knowing what he was thinking as he was searching for the topics to answer. And then he was also asked to verbalize when he wrote his opinions on the Discussion Board. Also, I told him that he must write in English but he was allowed to speak either in Thai or in English as he thought out loud. In addition, he was told that if he stopped talking for very long, I would remind him to think aloud. Then, the participant started working on the tasks while thinking out loud.

3.1.1.4 Video-stimulated recall

While the students were participating in Discussion Board posting Demonstration, they were video-taped. Then the video was played back to them. They were asked to discuss the decisions they were making. The interviews were taped-recorded.

3.1.1.5 Observations and field notes

When I observed the participants, I made short notes of what I noticed. According to Bowman (1994), field notes supplement data from videotaping because they record what is not captured on the video. Information from video and field notes supplemented that from other sources very well.

Each research method served to answer some particular research questions as in Table 1:

Table 1: The relationship between research methods and research questions.

Methods	RQ1	RQ2
Questionnaires	x	X
Interviews	x	X
Think aloud protocols	x	X
Video stimulated recall		X
Observations and field notes	x	X

3.1.2 Schedule of data collection

The following table shows schedule of data collection.

Table 2: Schedule of data collection.

Time	Tasks
Week 3	a. Students completed the questionnaires b. Students posted the topics they would like to discuss with their classmates via Moodle
Week 4	a. Pilot study b. Students made appointments with the researcher as to when they would like to have interviews, participated in Discussion Board posting Demonstration and video-stimulated recalls.
Weeks 5-6 and Weeks 9-11	Students took parts in interviews, Discussion Board posting demonstration and video-stimulated recalls. Step 1 Interviews (15 minutes) Questions were on a. How do you feel about having to discuss issues related to reading passages in English in a reading class? b. How do you feel when you have different opinions from your friends? How do you react toward such phenomenon? c. How do you feel having to participate in web board discussion? d. How would you compare discussions in classroom and discussions via webboard? e. Do you have problems having to use Moodle? Step 2 Discussion Board posting demonstration (30 minutes) Step 3 video-stimulated recalls (20 minutes) *Note Field notes were taken throughout the session.

Note: 1. Interviews and video-simulated recalls the procedures were conducted in Thai. However, the data has been translated into English in this research report so that it will be accessible to international audience.

2. Students' responses on the Discussion Board are included here without any editing.

3.2 Data Analysis

I first transcribed information from qualitative methods: interviews, observations, and field notes. I then reread the transcripts three times in order to identify categories that the students expressed how they interacted with their friends via Discussion Board.

In developing a coding system, I compared categories to eliminate redundancies and clustered them together once I noticed that they were related. I got the following main categories:

1. Students' attitudes towards the requirement to express their opinions in an EFL reading classroom

    1.1 self-efficacy

    1.2 external motivation

    1.3 reactions as a result of a collectivist culture

2. The manners in which students interact with one another online

    2.1 sensitivity to the context

    2.2 strategies used to produce the responses

        2.2.1 pre-writing stages

        2.2.2 while-writing stages: Strategies helping the posts more effective

            2.2.2.1 uses of famous quotations

            2.2.2.2 uses of famous beliefs

            2.2.2.3 creating own analogies

            2.2.2.4 uses of pictures

        2.2.3 Post-writing stages

            2.2.3.1 revision at local level

            2.2.3.2 revision at global level

I used, NVivo 2 (QSR International, 2002), a qualitative data analysis software program to help me manage the data corpus. There were benefits of using NVivo 2 in the data collection and analysis phases of this study. I stored and retrieved all forms of data, including interviews. I coded all of the forms of data that were imported into the program, and I searched the data corpus for all instances of data that shared a particular code (or did not share a code). Moreover, the software allowed me to employ Boolean logic in order to identify multiple and overlapping codes, and it gave me an ability to search for and store instances of the co-occurrence of these codes, which facilitated the establishment of key linkages between data sources.

3.3 Reliability

To establish the reliability of my coding system, I explained my coding scheme to a colleague and asked her to code 10% of the transcribed data after a practice session. In preparing sample segments for the reliable check, I gave each category three sample segments. When data were retrieved from different sources (i.e., interviews, transcripts from video), I provided three sample segments for each source. I then compared her coding with my own and found that in 85% of the cases she had used the same codes to code the data. Also, six months after the initial coding, I re-coded 10% of previously coded data. Comparison of the two sets of coded data achieved an intra-coder reliability of 91%.

3.4 Confidentiality

In addition, I promised the participants that if they chose to participate, all information would be held in strict confidence. Their identity would be kept strictly confidential. I would use pseudonyms in case of quoting them in the study.

4. Results

4.1 Research question I: What are the students' attitudes towards the requirement to express their opinions in an EFL reading classroom?

In this section, the students' attitudes towards the requirement to express their opinions in an EFL reading classroom are described. There are three main aspects regarding the students' attitudes: factors associated with the level of participation in class discussion, external motivation and influences of a collectivist culture.

4.1.1 Factor associated with the level of participation in class discussion: Self efficacy

In this study, self-efficacy plays very important role. Bandura (1997) defined self-efficacy as "beliefs in one's capabilities to organize and execute courses of action required to produce given attainments" (p. 3). Notably, self-efficacy has to do with the judgments of what one can do with whatever skills one possesses rather than the judgments of the skills themselves.

In the following item from the questionnaire:

You are confident that you can make yourself understood effectively in class discussion in English.

Yes   No

There were 8 students answering *Yes* to this question. Ten students answered *No*. Those who answered *Yes* had an average of English Proficiency score of 70.31, whereas the average of English Proficiency score those who answered *No* was 70.01. These two scores were not very different. This means that the students may have different levels of self-efficacy although they have the same level of English proficiency. I believe that this is in line with my research (Chuaraypratib, 2005), which shows that the students' levels of English proficiency and their levels of self-efficacy did not always correlate.

Nillawan was an example of this group of the students. Her English proficiency score was 71, which was average for this class. However, she lacked self-efficacy. She said during the interview: "I do not speak much in class because I am not very certain whether my friends will understand my English. Also, I can't think as fast as my classmates. They are all very quick."

Studies such as Chen (2003) show that ESL students who was not proficient in English tended to have problem participating in class. They were afraid that what they said would not be intelligible to other people. They also felt intimidated by quicker classmates. Students needed different amounts of time to create responses that would be respected by their friends.

The current study shows that some students may have an average score in English Proficiency Test. However, their level of self-efficacy may be low. This group of the students may not be self-efficacious with their English either. One result of this was that they needed a larger amount of time to create their response in class. This was the reason why they did not participate as much as they would want to.

4.1.2 The skills and external motivations

Most students had positive attitudes toward having to express opinions in EG 222. The average score for the item*: I believe that expressing opinions is an important skill* was 4.62 out of 5. In fact, this is congruent with what the students wrote

on the Discussion Board about expressing their opinions as a part of educational system. Patra, for example, wrote:

> *From my experience, I think one of many problems of Thai educational system is the process of teaching that teachers only "teach" things written in the textbooks and had students memorize huge amount of information without thinking. This way of teaching makes students get stuck in what teachers teach so they cannot think out of the frame. Therefore, to solve this problem, at least I think that after teaching teachers should open the floor to allow students to ask questions and discuss together on the lessons they learned.*

This study also shows that the students were influenced by external motivation. They believed that expressing opinions was an important skill in the workplace. Sitthichai, for example, said that this requirement helped prepare students very well for their future. "When I work, for example, I have to be able to express my opinions so that they would be heard in the workplace."

Minnida had the same opinion. To her, "If I would like to be successful in my career, I would have to be willing to express my opinions."

Another important skill emphasized in this course was that students should be willing to accept other people' opinions. Minnida added, "When I work, I have to accept other people's opinions as well."

We can see that the students' desire to be successful in their future career was a factor that led them to see the benefits of having to express their opinions in class. This study shows that even when the students had different opinions from their friends, some of them saw benefits of such phenomena. Intira, for example, said:

"Class discussion is a useful activity. I have to listen to my friends' opinions. In fact, I find it especially beneficial when my friends have different opinions from mine. I think.. Oh it's possible to think this way too. I'm ready to change my opinions if I find that my friends' are better than mine."

Some students offered comments on the phenomena which involved students' willingness of modifying their ideas, Kallaya, for example, pointed out that being able to overcome one's ego was an important characteristic of an adult.

"Being able to admit that other people's opinions are better than yours is a difficult process. However, it is important if you want to be successful in life. You have to overcome your ego in your career."

This can be seen that external motivation had a very important role. The students believed that willingness to listen to different opinions and abilities to cope with them were relevant to what they would have to do in their future careers. This is the main reason why they considered this phenomenon beneficial.

4.1.3 Influences of a collectivist culture

This section focuses on the influence of a collectivist culture on the way the students participated on the Discussion Board. They were uneasy when they had different opinions from their friends. Although there were some cases where students believed it beneficial to listen to different opinions in classroom as described in Section 4.1.2, there were more cases where students in this study indicated that they were uncomfortable to say that they disagreed with their classmates. In fact, the students' score on the item: *You feel uneasy when you disagree with your friends* was very high, 4.71 out of 5. This is in line with the results from interview. According to Sittichai,

My parents taught me to avoid having conflicts with anybody since I was very young. I prefer to remain silent if I disagree with people. One reason is that nobody knows if the person I disagree with will be in authority position in the future or not. If that's the case, and I used to disagree with him, I will be in big trouble.

This is echoed by Patra:

My parents said that whatever I do, I have to think about my own future in the long run. I do not just live for today only. In fact, Buddhism also stresses impermanence of life. Let me tell you a story from a Thai novel, Si Phandin (Four Reigns). In this story, Khun Un, who was the eldest daughter of Khun Ying, was very powerful at the beginning of the story. She maltreated her half-siblings. Later, however, she was reduced to poverty and had to depend on a half-sister that she used to treat badly. I believe that this is a very difficult situation. Thus, I prefer not to have any enemy.

Thus, when students were uneasy that they had to differ from their friends, influenced by a constructivist culture, they remained silent in order to avoid causing conflict with their classmates.

I believe that the students' behaviors are in line with the "collective mental programming" frame proposed by Komin (1990), which she derived from two followed-up empirical studies conducted in 1978 and 1981. As a result of these studies, Komin presents nine Thai values:

(a) ego orientation,

(b) grateful relationship orientation,

(c) smooth interpersonal relationships orientation,

(d) flexibility and adjustment orientation,

(e) religio-psychical orientation,

(f) education and competence orientation,

(g) interdependence orientation,

(h) fun-pleasure orientation,

and (i) achievement-task orientation" (p. 158).

The orientations which are especially relevant are (c) smooth interpersonal relationships orientation, and (d) flexibility and adjustment orientation. Sittichai, for example, said that he would remain silent if he had different opinions from his friends' because a smooth relationship with them was his priority. In this case, he did not want to violate his friends' positive face. The strategy employed was avoidance. In the case of Intira, she was influenced by the flexibility and adjustment orientation by saying that she was ready to change her opinions if their friends' were better than hers.

In conclusion, students were influenced by two forces: their external motivation and the collectivist culture. They would like to be successful in their future career and they wanted to maintain a smooth relationship. It was very likely that their two desires are in conflict. This study suggested that they tended to give more weight to a smooth relationship. They were more likely to remain silent if they had different ideas from their friends. In fact, in a country where the collectivist culture was highly influential such as Thailand, even in a workplace, an ability to express their opinions may have a secondary role, compared with a smooth relationship with superiors, or even with co-workers.

4.2 Research question 2: In what way do the students interact with one another online?

In this section, the manner in which the students interacted with one another via Moodle is described. It is divided into two main parts. The first one concerns sensitivity to the contexts. The second one describes the way the students tried to represent a positive image of themselves.

4.2.1 Sensitivity to the contexts

Sensitivity to the context involves the level the students understand the effects of contexts that could impact or influence their own perceptions and conclusions about resolving the problem. These may include social, cultural, legal, and ethical contexts.

In this study, there were two kinds of contexts. The first one was the context in which the interactions among the students took place. This is described in 4.2.1.1. The second was the context of the discussion topic. In this case, it was Thailand, including the Thai society. This is described in 4.2.1.2.

4.2.1.1 Interaction Through the Discussion Board

The course employed a blended learning approach: there were regular classes where students met as well as online activities. When they interacted on the Discussion Board, they were aware of the fact that they also met their friends in persons. In this situation, they were influenced by many factors. They were conscious of their friends' feelings. Some students were not entirely pleased with posting on Discussion Board. Kallaya, for example, compared this activity with the interaction in a famous Discussion Board, pantip.com. She said that:

"With such situation, we cannot really post what we want to. We have to consider that, during class times, we meet each other. I would prefer web board like pantip.com. You have no ideas who you're talking with. In that case, we can really write how we feel.

"Because people have time to think, what they write may not be what they really think. They have time to polish their ideas. Thus, what they express does not show the real person. This is unlike the case where the students have to express their

ideas immediately in class. In this case, they have no time to beautify their idea. They have to talk what they think."

In addition, because of the influence of the collectivist culture, students were careful about the topics they posted. Rawiwan, for example, said during the interview:

Researcher: Why did you choose to post the topic concerning global warming and climate change?

Rawiwan: Because it was a topic concerned everyone. Moreover, I think this topic is suitable for university students to discuss. I believe we should be talking about something serious. This topic is worth talking about. My friends will benefit from discussing it. I also realized that my teacher was going to read it, so I have to be careful about the topic I chose.

In conclusion, students were conscious of the fact that they were discussing on the Discussion Board, which was a part of classroom activity. They realized that they met their friends in person as well. Also the teacher was there to read their posts. The presence of the teacher also created a sense of audience as well. All of these considerations influenced the way they interacted with one another.

4.2.1.2 Real life as contexts

According to Lipman (1988), a thinking that is sensitive to context takes into account special constraints. Nattapong, for example, when participating in the thread Populist policy wrote:

Nowadays there are seven million cars running over the capital, but the caperble of dealing with these vehicles in Bangkok is actually less than two million. Moreover, the number of lanes is still the same. Can you imagine how bad it is! In my opinion, populist policy absolutely meets Thais needs and pleases them but may be not an answer for solving problems in our country.

In this case, Nattapong was talking about the First Car policy. He focused on the constraints brought about by the condition of Bangkok: *there are seven million cars running over the capital, but the caperble of dealing with these vehicles in Bangkok is actually less than two million. Moreover, the number of lanes is still the same.* Thus, this policy was not appropriate for Bangkok because there were too many cars already.

It is interesting that when the students interacted, different students may have different aspects of the same context in mind. Let's see the following example. They were discussing the fact that many university students lived as couples in dormitories, fully aware of the Thai context.

Intira wrote that *In Thai tradition, this is still unacceptable. They should think of the parents' feelings too.*

This is echoed by Nillawan, who said during the interview that

> *Moreover, Thai society does not accept this. If students themselves do not care about what others think, at least they should care about what their parents feel. Interestingly, not all students believed that teenagers should refrain from having sex while studying. One of the reasons was that it was not acceptable in the Thai society.*

Sermchit, for example, wrote that

> *The older generation shouldn't judge the younger ones by blaming that such behavior is wrong or immoral by using their religious views, traditional standards or social values (like Thai idiom "ching-suk-gon-harm") which conflict with human's nature.*

In conclusion, students were conscious by constraints imposed by beliefs popular in the Thai society. Interestingly, this study shows that the same belief may bring about different reactions among the students.

4.2.2 The students tried their best to create the best representative of themselves

According to Kohlberg's Stages of Moral Development, students whose motivation is based on expectation of others have a higher stage of moral development than those whose motivation is based on fear of punishment. In this study, students would like to maintain the respect of their classmates' and the teacher's. They tried to create a positive online representation of ourselves. Their behaviors associated with the desire to maintain social acceptance can be divided into three stages: pre-writing stages, while-writing stages and post-reading stages.

4.2.2.1 Pre writing stages

It is found that during the pre-writing stage the students tried to find the topic that they would like to answer. It shows that they tried to find topics they believed that they had substantial support. Sermchit, for example, verbalized when she was trying to choose the topic that she would respond to:

> Oh..which one should I choose? Pilot? … No, no, no. cyberlove? Ok. This one is more possible. I have something to write about.

Sermchit's "*Oh..which one should I choose? Pilot? … No, no, no. cyberlove?*" is an example of reflection. She had an opportunity to reflect whether she had enough information about the topic. In a face-to-face discussion, she would not have the same opportunity. She had to try to answer the question immediately, if she would like to have the floor.

When I asked why she did not choose to respond to the topic, "Women can be pilots too," *she said: I don't think I know this topic well enough.*

Researcher: What about the topic on 'Difference in communication between men and women?

Sermchit: I believe that I'm familiar with this topic. As a university student, I have to communicate with male students often. I have some ideas about how men and women communicate differently.

In conclusion, during the pre-writing stage, students tried to find topics that they had sufficient information to support. Such decision shows that they were influenced by a collectivist culture.

4.2.2.2 While writing stage

The strategies discussed in this section were associated with the fact that the students interacted online had time to think of the way to make their arguments convincing. This is an important affordance of online discussion. The students were, in turn, influenced by a collectivist culture. Thus, they tried to represent a good image of themselves. Since the post was permanent, they tried to make their argument as convincing as possible.

4.2.2.2.1 Uses of famous quotations

In this study, some students included famous quotations in their responses. In the example below, Rawiwan was responding to the topic: Populist Policy.

I agree that the government wants to have a middle class and lower middle class as the voters. But I am against this policy because it does harm more than good. By launching the first car buyer scheme, every individual gets the benefits but the various huge bad effects will come after this policy is over. We will see if the Yingluck government will deals with the problems or just leave them. To make my opinion be more reliable, I would like to quote the statement from the major of Bogota which is "A developed country is not a place where the poor have cars, it's where the rich use public transportation"

Rawiwan's use of the quotation: *A developed country is not a place where the poor have cars, it's where the rich use public transportation*, supported her negative attitude toward the government's populist policy, one of which was to allow people to have their first car more easily. This quotation shows that helping people to own cars did not signify a successful government. In fact, the government should find ways to help all people to have access to convenient public transportation.

In another example, Piyaporn wrote that

Sir Winston Churchill, a British politician once said "It has been said that democracy is the worst form of the government except all the others that have been tried."

Her quotation emphasizes the desirability of democracy. Piyaporn would like to bring her point to attention. To her, people should have a right to express their own opinion. In Vietnam, however, people have to "shut up and trust the government." This is in line with Scardamalia (2002), which examines how knowledge is built. One component is constructive uses of authoritative sources. This is enhanced by a critical stance toward them. Piyaporn quoted Churchill's words with a critical stance toward the way the Vietnamese government reacted toward the fact that people expressed their opinions. Scardamalia goes on to state that Discussion Board plays a role in this phenomenon because it encourages participants to use authoritative sources, along with other information sources, as data for their own knowledge building and idea-improving processes. In the above example, Rawiwan integrated a real phenomenon

in Thailand: people were exempted from sales taxes if they were buying their first car with the famous quotation. In this way she built on authoritative source.

4.2.2.2.2 Uses of famous Thai belief

Another strategy that the students employed to convince their reader was to use famous Thai belief. It is interesting to note that the students wrote some part of it in a transliteration form. Below was an example:

> The older generation shouldn't judge the younger ones by blaming that such behavior is wrong or immoral by using their religious views, traditional standards or social values (like Thai idiom "ching-suk-gon-harm") which conflict with human's nature.

During the interview, I asked her why she used this belief. She answered:
I was thinking of the most effective way to write. I decided to use the Thai belief because I believe that all my classmates know it. I would like them to understand me easily.

Her interview shows that Sermchit had the opportunity to choose the best strategy. She believed that this strategy would be effective in helping her to make the message across.

This is in line with what scholars Bhatia and Ritchie (2004) Bullock and Toribio (2009) found about the factors that lead to the use of code switching. Also, the use of it emphasized to the reader that they were of the same cultural group because they understood the same belief.

4.2.2.2.3 Creating their own analogies

Analogy is a cognitive process of transferring information or meaning from a particular subject (the analogue or source) to another (the target), or a linguistic expression corresponding to such a process. In the example below, when responding to a post in the topic of Populist Policy, Kallya tried to support her argument. In her case, she created her own analogy. Let's look how she verbalized when she was trying how to respond:

> Let's see how to make this idea clear. What should I compare the government to? Some kind of vulture to feed on someone unfortunate…? No no that won't do We have to find what to compare to populist policies also…. Which story would work here?

The fisherman and the fish? … no. That won't be appropriate. What about Snow white? Oh yes. We can compare the poisoned apple to the populist policies too.

We can see here that affordance associated with interacting online played a role. Kallya does not have to reply to the post immediately. She had time to choose the best option. The following message was what she wrote:

> *The government is like a witch in a snow white story, deceive us to eat a poisoned apple and then we died. The delicious apple is refer to all populist policies that they seduce us to admire and have a sweet dream of living. In the future we will die from the non-performing loan and funded debt. Problems will reveal in the future and it will effect to the country's treasury reserves.*

To analogy scholars such as Duit (1991), Mayo (2001) and Wong (1993a,b), constructivism has an important role in this phenomenon. In order to create their own analogy, learners must actively construct meaning. In the example above, Kallaya thought in her own way how the poisoned apple was similar to the government's populist policy. In addition, the two cases brought about detrimental results. Snow White died because of the poisoned apple; similarly, Thai people became laden with debt because of the populist policy. In this case, the student had control over their own generative process.

4.2.2.2.4 Uses of pictures

In addition to the use of quotation, students also used picture to make their ideas clear and easy to understand. Pongpan, for example, when he talked about ways to combat global warming, recommended the use of bicycle. He searched for a picture. At first he keyed the word "bicycles" into the search engine "google." He arrived at this page:

Figure 1: From the website: https://www.google.co.th/#q=bicycle. Pongpan commented that he did not want texts for his reply. He wanted images of bicycles instead.
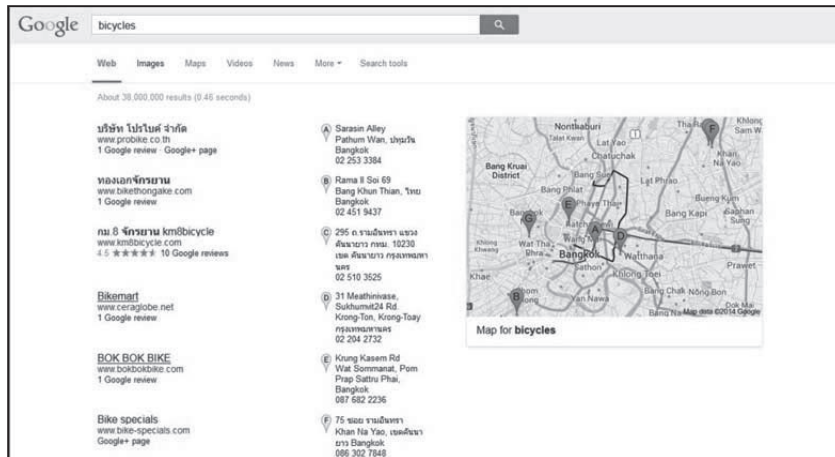
He monitored the progress against his goal. He realized that he did not want texts on bicycles; instead he wanted a picture of bicycles. Therefore, he clicked at the word image at the upper lefthand side. Then he arrived at this page:

Figure 2: From website: https://www.google.co.th/search?q=bicycle&biw=1600&bih=794&source=lnms&tbm=isch&sa=X&ved=0ahUKEwihj4XFrrrPAhUKr48KHcmRBywQ_AUIBigB.

Pongpan commented that he did not want any of these pictures. He wanted a picture with many bicycles. He then scrolled down and selected the following picture.
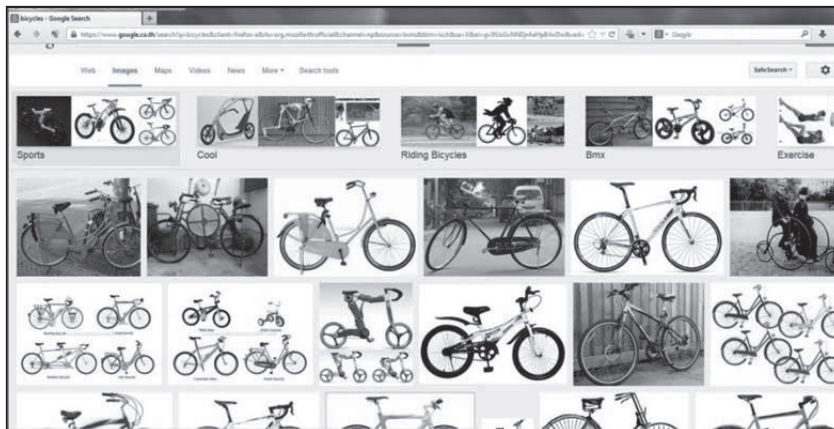
He verbalized during this process that *"No….no..not enough. Let me scroll down."* This is another example showing that he was involved in his self-regulation. He then scrolled down until he saw this picture. He decided to choose this one.

Figure 3: http://personalexcellence.co/blog/holland-transport/. Pongpan chose this picture because he believed that this picture showed a lot of bicycles. This suited his purpose.

We can see that the focus of this picture was not on giving information, but was on the fact that the producer is trying to influence the audience: in this case, trying to show that there are a lot of bicycle. This is also in accordance with Kress and Leeuwen (1996; 2001), which states that the interactive relationship between illustrators and readers is formed as images provoke an interaction between them.

His interview showed that he had his audience in mind when he chose the picture to include in his post.

Researcher: Why did you want to include a picture in your post?

Pongpan: I would like to create a feeling in the audience. I would like them to feel that there should be a lot of people using bicycles.

Researcher: So this is why you didn't like the first pictures from the result page?

Pongpan: That's right. There were too few bicycles. I believe that my audience won't feel that there are a lot of people.

Constructivists such as Jonassen et al. (1995) focus on language as medium for discussion. However, this study shows that meaning-making is not confined to language. In this case, pictures also have a role, the idea which is in line with Kress, Ogborn, and Martins(1998) and McCafferty (1998). In this study, the students were interacting via Moodle, the place where multimodal resources such as images from websites were readily available for them to use in their response. Thus, it was convenient for the students to include the pictures.

Pongpan's interview shows that he was influenced by social semiotics. First of all, we can see that Pongpan chose the picture with the audience in mind. This is in line with Berger (1972), who states that images are shaped by social consideration. Moreover, he said, "I would like them to feel that there should be a lot of people using bicycles." and "There were too few bicycles. I believe that my audience won't feel that there are a lot of people." His interview shows that he predicted his audience's interpretation, which is another characteristic of social semiotics.

4.2.2.3 Post writing stages

While the students were writing, they thought about their audiences and ensured that they expressed themselves clearly. They checked whether their writing was well organized, sensible and relevant to the topic.

Normally, writers check the flow and structure of the essay. They look at the components such as a clear introduction, a body and a conclusion. They also pay attention to linking devices. In addition, they make sure that grammar and spelling are correct.

The students would like to look good in their friends' and their teacher's eyes. They read their posts and tried to improve them. Their revisions were found both at the local level and the global level.

4.2.2.3.1 Revision at local level

It refers to more micro-structural changes such as substitutions of words, or additions/deletions of words and phrases as well as grammar and spelling. In the example below, students focus on grammatical features. Pornpibul (2002) also found

that students pay attention to grammatical mistakes. One of the reasons seemed to be that the sentential structure of the native language (Thai) and the target language (English) are very different. Nattapon, for example, paid attention to this sentence of his:

The more they try to hide the truth from their people, the change will come faster.

When he read this sentence, this is his think aloud protocol:

No..no this sentence is in the form of …er, …er so faster must be at the beginning of the sentence. So he wrote

the more they try to hide it from their people, the faster big change will come

In conclusion, when students revised their posts, they paid attention to such elements as syntactic structure or vocabulary. Such revisions did not change the meaning of the posts.

4.2.2.3.2 Revision at Global level

This refers to macrostructure changes affecting the gist or the essential meanings of the texts. Let's look at the following example. Paka is looking at this sentence:

I believe that students should not live as a couple because it is not moral

She verbalized while reading this sentence during the revision:

"Uum what about the reason here? Why shouldn't students live as a couple? It's not moral? No, no it's not substantial enough. Which one? Let's think of parents…yes… I think this is convincing enough."

(wrote) *I believe that students should not live as a couple. What would you feel if your daughter moves out and lives as a couple with her boyfriend?*

During the interview, I asked, *"So you think that if you put your friend in her parent's shoe, she will understand your point?"*

Paka: I would like to make my opinion as persuasive as possible. I believe that in the Thai society, if you believe that you will avoid doing what your parents do not like.

Researcher: You think this is more persuasive that the reason that it is immoral to live together without marriage.

Paka: Definitely.

Here, Paka was trying to convince her classmates that college students should not live as a couple. One reason that she could think of was that it was not moral to do so. However, she believed that this reason was not powerful enough. Her verbalization *"not moral? No, no it's not substantial enough"* shows that she was self-monitoring. Scholars such as Zimmerman (1989, 2000, 2001, 2008, 2013) examine the role played by self-regulation. Students who self-monitor will detect their behavior in terms of their goals. Here, Paka self-monitored the progress of her goal of convincing the readers. She realized that the reason of morality was not substantial enough. She tried to think of other reasons. Then she found the reason that their friends' parents would be unhappy if the children lived as couple when they were university students was strong enough.

5. Conclusion

5.1 Conclusion

This study shows that students' attitudes towards the course requirement to express opinions in classroom are complex. Students realized that this requirements were beneficial to them, especially when they considered that they needed the skills to express themselves, to listen to other people' opinions and to modify their own opinion. However, they were uncomfortable to show that they had different opinions from their friends. They preferred to remain silent.

Moreover, they tried their best to create a positive image for their friends and teacher. A collectivist culture influenced their action, their decision-making and their thoughts in every process of their interacting online.

5.2 Pedagogical Implications

This study shows that students benefitted from interacting online. Students who needed more time to think especially benefitted from this activity because in classroom discussion they did not have much opportunity to talk and to express their opinions. Moreover, students who already talked much in class had more time to include some features that made their argument more substantive. These features included

the use of images, and famous quotations. Some students even created their own analogy.

This study also shows that when the students are given opportunities to discuss topics of their interest, it is more likely that they will engage in deep, meaningful interactions with their peers, a necessary process to meaning construction. Thus, teachers should include materials which are of interest. Also, students seem to be interested with materials which will impact their future, such as AEC in this study. I believe that the topics of interest to them also include topics that have impact on their future.

5.3 Suggestions for further research

This study was done with university students in an English course. Since, at the present time, there have been some interests in CLIL, in which English is used in content courses. Having students interact online for CLIL courses has shown in various settings to be beneficial. However, there is still no such research in Thailand. I believe that conducting this kind of research in Thailand will bring about interesting results.

This study was done with a homogeneous group of the students. Normally, to study a cultural impact on students' behavior, researchers tend to choose a heterogeneous group of the students, such as a study by Carson and Nelson (1996). It is interesting to conduct this kind of research in a heterogeneous group of the students.

References

Bandura, A. (1997). *Self-efficacy: The exercise of control*. NY: W. H. Freeman and Company.

Berger, J. (1972). *Ways of Seeing.* London: British Broadcasting Corporation and Penguin Books.

Bhatia, T. K., & Ritchie, W. C. (2004). Social and Psychological Factors in Language Mixing. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of Bilingualism* (pp.336-352). Blackwell Publishing.

Biesenbach-Lucas, S. (2003). Asynchronous discussion groups in teacher training classes: Perceptions of native and non-native students. *Journal of Asynchronous Learning Network, 7*, 24-46.

Bowman, M. (1994). Using video in research. *Spotlights*, *45*: 1-3.

Brown, P., & Levinson, S. (1987). *Politeness: Some language universals in language use*. Cambridge: Cambridge University Press.

Bullock, B. E., & Toribio, A. J. (2009). Themes in the study of code-switching. In Barbara E. Bullock & Almeida Jacqueline Toribio (Eds.), *The Cambridge handbook of linguistic code-switching,* 1-17. Cambridge: Cambridge University Press.

Carson, J., & Nelson, G. (1996). Chinese students' perceptions of ESL peer response group interaction. *Journal of Second Language Writing, 5*(1), 1-19.

Chen, T. (2003). Reticence in class and on-line: Two ESL students' experiences with communicative language teaching. *System*, *31*, 259-281.

Cheng, X. (2000). Asian students' reticence revisited. *System*, *28*, 435-446.

Chuarayapratib, N. (2005). *The role of reading for pleasure on English websites on language acquisition: A study at a Thai University*. (Unpublished doctoral dissertation). University of Memphis.

Donato, R. (2004). Aspects of collaboration in pedagogical discourse. *Annual Review of Applied Linguistics*, *24*, 284-302.

Duit, R. (1991). On the role of analogies and metaphors in learning sciences. *Science Education, 75*(6), 649-672.

Escobar-Rodriguez, T., & Monge-Lozana, P. (2012). The acceptance of Moodle technology by business administration students. *Computer & Education, 58*, 1085-1093.

Goffman, E. (1967). *Interaction Ritual: Essays in Face-to-Face Behavior*. Chicago: Aldine.

Hiltz, S. R. (1990). Evaluating the Virtual Classroom. In L. Harasim (Ed.), *Online education: Perspectives on a new environment* (pp. 133-169). NY: Praeger.

Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations across Nations.* Thousand Oaks, CA: Sage.

Hofstede, G., & Hofstede, G. J. (2005). *Cultures and Organizations: Software of the Mind* (Rev. 2nd ed.). NY: McGraw-Hill.

Jackson, J. (2002). Reticence in second language case discussions: Anxiety and aspirations. *System*, *30*, 65-84.

Jonassen, D., Davison, M., CoM., Campbell J., & Bannan Haag, B. (1995). Constructivism and Computer-Mediated Communication in Distance Education. *The American Journal of Distance Education. 9*(2), 7-26.

Kang, M., & Lim, K. (2013). Structural analyses on the effects of self-regulated learning and learning motivation on learner-instructor interactions and academic performance in college learning environments with e-learning contents. *Journal of the Korea Contents Society, 13*(11), 1014-1023.

Kim, M. (1994). Cross‑cultural comparisons of the perceived importance of conversational constraints. *Human Communication Research*, *21*, 128-151.

Komin, S. (1990). *Psychology of the Thai People - Values and Behavioral Patterns.* Bangkok: Research Center, National Institute of Development Administration.

Kress, G., Ogborn, J., & Martins, I. (1998). A satellite view of language: Some lessons from science classrooms. *Language Awareness, 7*(2&3), 69-89.

Kress, G., & van Leeuwen, T. (1996). *Reading images: The grammar of visual design*. London: Routledge.

_____. (2001). *Multimodal discourse: The modes and media of contemporary communication.* London: Arnold.

Lave, J., & Wenger, E. (1991). *Situated learning. Legitimate peripheral participation.* Cambridge: Cambridge University Press.

Liaw, Sh. (2008). Investigating students' perceived satisfaction, behavioral intention, and effectiveness of e-learning: A case study of the Blackboard system. *Computer & Education, 51*, 864-873.

Lipman, M. (1988). *Philosophy goes to school*. Philadelphia: Temple University Press.

Liu, N. F., & Littlewood, W. (1997). Why do many students appear reluctant to participate in classroom learning discourse?. *System*, *25*, 371-384.

McCafferty, S. (1998). Nonverbal expression and L2 private speech. *Applied Linguistics, 19,* 73-96.

Maxwell, J. (1996). *Qualitative research design: An interactive approach.* Thousand Oaks, CA: Sage.

Mayo, J. A. (2001). Using analogies to teach conceptual applications of developmental theories. *Journal of Constructivist Psychology, 14*(3), 187-213.

Pena-Perez, J. (2000). *Participation, interaction and meaning construction in a university-level course using a computer bulletin board as a supplement to regular class discussions: A case study*. (Unpublished doctoral dissertation). Cornell University, Ithaca, NY.

Pituch, K. A., & Lee, Y. (2006). The influence of characteristics on e-learning use. *Computer & Education, 47*, 222-244.

Pornpubul, N. (2002). *The role of writing in EFL students' learning from texts: A case study in a Thai university*. (Unpublished doctoral dissertation). University of Toronto.

Scardamalia, M. (2002). Collective cognitive responsibility for the advancement of knowledge. In B. Smith (Eds.), *Liberal education in a knowledge society* (pp. 76-98). Chicago: Open Court.

Tani, M. (2005). Quiet, but only in class: Reviewing the in-class participation of Asian students. Retrieved November 18, 2014, from http:// conference.herdsa.org.au/2005/pdfnon_refereed/30pdf.

Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.

Vygotsky, L. S. (1986). *Thought and Language*, A. Kozulin, (Ed. and Trans.), Cambridge, MA: MIT Press.

Warden, C. A., Chen, J.F., & Caskey, D. (2005). Cultural values and communication online: Chinese and Southeast Asian students in a Taiwan international MBA class. *Business Communication Quarterly*, *68*, 222-232.

Wells, G. (2000). Dialogic inquiry in education: Building on the legacy of Vygotsky. In C. Lee & P. Smagorinsky (Eds.), *Vygotskian perspectives on literacy research: Constructing meaning through collaborative inquiry* (pp. 51-85). Cambridge, UK: Cambridge University Press.

Williams, C. (2002). Learning on-line: A review of recent literature in a rapidly expanding field. *Journal of Further and Higher Education*, *26*, 263-272.

Wong, E. D. (1993a). Self-generated analogies as a tool for constructing and evaluating explanations of scientific phenomena. *Journal of Research in Science Teaching, 30*(4), 367-380.

_____. (1993b). Understanding the generative capacity of analogies as a tool for explanation. *Journal of Research in Science Teaching, 30*(10), 1259-1272.

Zimmerman, B. J. (1989). A social cognitive view of self-regulated academic learning. *Journal of Educational Psychology*, *81*, 329-339.

_____. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 13-40). San Diego, California: Academic Press.

_____. (2001). Theories of self-regulated learning and academic achievement: An overview and analysis. In B. J. Zimmerman & D. H. Schunk (Eds.), *Self-regulated learning and academic achievement: Theoretical perspectives* (2nd ed., pp. 1-38). NY: Lawrence Erlbaum Associates.

_____. (2008). Investigating self-regulation and motivation: Historical background, methodological developments, and future prospects. *American Educational Research Journal, 45*(1), 166-183.

_____. (2013). From cognitive modeling to self-regulation: A social cognitive career path. *Educational Psychologist*, *48*(3), 135-147.