Luis Fernando González-Beltrán (Organizador)

Educação no Século XXI:

Perspectivas Contemporâneas sobre Ensino-Aprendizagem



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PRÓLOGO

El siglo XXI se define por la competitividad global, en un contexto lleno de desafíos urgentes, la sobrepoblación, la voracidad en el consumo de los recursos naturales, los problemas ecológicos, el desempleo, la exclusión social, etc. Algunas apuestas de solución se decantan por la calidad de la educación, por la generación de conocimientos científicos y la generación de valores éticos. Una población educada tiene mayor nivel de bienestar, tanto económico como en términos de salud. Por esta razón, nos preguntamos cuales son los avances que se han logrado en el proceso de Enseñanza aprendizaje, que nos permitan abatir los rezagos en la educación en las zonas más pobres del planeta. Las respuestas nos deben llegar de diferentes partes del mundo, de múltiples autores, universidades y centros de educación. Tal es el objetivo que nos planteamos al lanzar la obra "Educação no século XXI: Perspectivas Contemporâneas sobre Ensino-Aprendizagem", reunir muestras de todo el caudal de sabiduría que se desarrolla en estos momentos sobre este importante tópico, de forma que pueda tener mayor utilidad.

Ya no se trata de construir más y más escuelas, de contratar más y más profesores, sino buscar como transformar el escenario educativo para lograr mejores resultados. No hablamos solo de las tecnologías, sino de otros factores que trataremos aquí.

Estructuramos la obra en cinco apartados, el primero: "Reflexiones sobre el docente y la investigación educativa", con seis trabajos teóricos sobre la necesidad de incluir valores desde la primera infancia; sobre el estado en que quedó el docente en la pandemia; la reflexión sobre lo que significa ser docente; sobre redefinir el papel del investigador educativo; un texto historiográfico sobre los principios ideológicos con los que se inició la educación en México; y un replanteamiento curricular en las escuelas de educación superior para un nuevo tipo de formación disciplinar que se requiere en los tiempos modernos.

La segunda sección denominada "La nueva práctica en Pedagogía" contiene cuatro trabajos, sobre el papel que desempeñan los pedagogos fuera de los contextos escolarizados; el papel de la coordinación pedagógica como referente en el contexto escolar; un estudio descriptivo sobre las habilidades comunicativas de los profesores en formación; y un estudio que insta a los educadores a incorporar la afectividad, la comunicación y la personalización para fomentar un futuro autónomo y democrático para los estudiantes.

El tercer componente "Uso de las Tecnologías en Educación" cubre también cuatro trabajos, uno analiza las habilidades tecnológicas, así como académicas, de los

"nativos digitales". Los resultados muestran que, si se usan para el ocio, sus habilidades son excelentes, pero no así para su propio aprendizaje. El siguiente trabajo muestra la utilización de fenómenos de la vida real y las TIC para conectar con conceptos matemáticos complejos. Seguimos con una revisión sistemática sobre la Modelación Matemática en entornos de Realidad Virtual. El cuarto estudio demuestra que el uso de la inteligencia artificial generó dificultades en términos de originalidad que no tuvieron los alumnos que no usaron ninguna tecnología.

La cuarta sección la nombramos "Educación en contextos inciertos o empobrecidos" con cuatro estudios. Uno evidencia, a decir de los autores, "el racismo estructural presente en la sociedad". El segundo presenta un intento por llevar la educación a las zonas rurales, se ensayó una especie de servicio social de una universidad pedagógica de Angola, para que instruyeran tanto a los niños sin escuela, como a los adultos analfabetas. El tercero demuestra que la baja pronunciada de la matrícula estudiantil a nivel universitario en Venezuela no debe ser atribuida como efecto exclusivo de la pandemia de COVID19, sino a cuestiones sociales y económicas. El último indaga sobre la presencia de los derechos humanos en el proceso de reclutamiento de personal.

Nuestra sección final "Formación docente en Bachillerato y Educación Superior" contiene siete trabajos, el primero analiza la comunicación intercultural, que logró beneficios varios, entre ellos aprendizaje constructivo y cooperativo, pensamiento crítico, y una mejora en sus habilidades lingüísticas. El segundo presenta el diagnóstico de necesidades de formación docente, como cursos sobre sobre la salud emocional y física del docente de Ciencias y Humanidades. Continuamos con los resultados de los cursos de formación continua para los docentes sobre educación ambiental; luego tenemos un estudio sobre la investigación formativa, la que se lleva a cabo desde su preparación profesional buscando alcanzar autonomía y pensamiento crítico. En quinto lugar se discute la Open Science, que promueve el acceso libre a toda la información científica. También intenta saber si las universidades se añaden a esta propuesta y cómo lo muestran en sus páginas web. El siguiente estudio aplicó un cuestionario cuyas respuestas mostraron que muchas de las competencias en licenciatura se adquirieron durante la realización del trabajo de investigación. Finalizamos con una investigación que se realizó con el objetivo de analizar los hábitos de estudio que tienen las y los estudiantes de bachillerato para apropiarse del aprendizaje y su relación con los resultados obtenidos en sus evaluaciones.

Esperamos que esta organización los lleve a disfrutar mejor la lectura sobre estas perspectivas contemporáneas.

Dr. Luis Fernando González Beltrán Universidad Nacional Autónoma de México (UNAM)

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TEACHING "CROSS-CULTURAL COMMUNICATION" THROUGH CONTENT BASED INSTRUCTION: CURRICULUM DESIGN AND LEARNING OUTCOME FROM EFL LEARNERS' PERSPECTIVES

Data de submissão: 28/04/2025 Data de aceite: 15/05/2025

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ABSTRACT: This study aims to investigate students' EFL perspective of effectiveness of content-based instruction in a crosscultural communication course. The main objectives of this study are three-folds: (1) to examine students' perspectives regarding the effectiveness of content learning; (2) to examine students' perspectives regarding the effectiveness of language learning; and (3) to examine students' perspectives regarding the effectiveness of cooperative learning and development of critical thinking. Sixty non-English major EFL students from a university in Northern Taiwan participated in this study. A variety of tasks such as readings of a variety of authentic texts, viewing movie and video clips, discussing in groups, and accomplishing a group project were employed to have students actively explore the subject content and concurrently work on their language skills. Students were also required to evaluate

their peers' final group project with provided evaluation criteria. Questionnaires and semistructured interviews were conducted to explore what students were able to learn from this course and the challenges they have encountered. The results from students' feedback revealed their positive gains in the areas of content knowledge as well as the enhanced language skills. Some perceived difficulties among students such as inability to fully comprehend the input or to produce effective output were reported and the pedagogical solutions were suggested. Other benefits such as constructive cooperative learning, enhanced critical thinking, and boosted confidence in the target language use were also reported by the learners.

KEYWORDS: cross-cultural communication; content based instruction; curriculum design; learner perspectives; cooperative learning; critical thinking.

1 INTRODUCTION

Content Based Instruction (CBI) is a curricular approach which focuses on the "concurrent teaching of academic subject matter and second language skills (Brinton, Snow, & Wesche, 2003, p.2). It is claimed that with CBI, the content knowledge is constructed through the meaningful and purposeful use of language. In CBI, language is not only the

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object of learning but the means for negotiating meaning, organizing information and acquiring content knowledge (Butler, 2005).

In Taiwan, the adoption of CBI programs takes place mainly within the framework of EFL classes where some authentic materials with selected topics of student interest are chosen for the main topics for exploration. The main goals of these courses are targeting at the development of language skills, with less focus on the content knowledge development. The other extreme of the spectrum which is increasingly adopted in Taiwanese tertiary level is the English Medium Instruction (EMI). For these EMI courses, the learning of content is the focus of the curricular with little attention paid to the specific development of language skills. As for university students' perspectives with CBI instruction in Taiwan, some studies reported positively in terms of enhancing their reading skills and some area of content knowledge (e.g., Lo & Sheu, 2008; Tsai & Shang, 2010); while other studies received some negative feedback from students, such as inability of comprehending well in class, or perceived insufficient implementation of content driven courses (e.g., Lee, 2007; Cheng, Chang, Chen, & Liao, 2010). With the limited curriculum which placed equal attention on the development of both content and language, and with the mixed results of student perspectives within the existed CBI curriculum, this study thus aims to add to the existing knowledge by reporting on the design and implementation of a CBI based subject course "Cross-Cultural Communication", with dual focus on content and linguistic development. It also aims to explore student perspectives on their perceived effectiveness of content and language learning, their perceived difficulties and coping strategies while taking this course.

"Cross-Cultural Communication" course has been promoted as a compulsory course in the tertiary level curriculum in many universities in Taiwan. To meet the demand of rapid globalization, many Taiwanese universities are promoting cultural exchange programs in various forms, such as senior year abroad or other short-term exchange student programs with their partner institutions abroad. In addition, many universities are recruiting students overseas, and consequently cross cultural communication is taking place on campus and in the classrooms. Cultural and language exchanges are inevitable and the ability to communicate effectively in different cross cultural context is becoming more and more important for students in Taiwan. Thus, this subject course "Cross-Cultural Communication" with CBI framework aims to help students not only learn distinctive culture(s) and different cross-cultural communicative patterns and skills, but use the target language meaningfully, and thus accelerate acquisition.

Specifically, this study will:

- outline the design and implementation of this CBI based "Cross-Cultural Communication" course,
- examine students' perspectives regarding the effectiveness of content learning and language learning,
- 3) and examine students' perspectives regarding the effectiveness of cooperative learning and development of critical thinking.

2 THEORETICAL FRAMEWORK

2.1 CONTENT BASED INSTRUCTION (CBI)

CBI aims to develop students' content knowledge and language skills through providing authentic and meaningful academic text. The integrated nature of content and language in CBI views "language as a medium for learning content and content as a resource for learning and improving language" (Stoller, 2002, p.109). As for what the "content" should be in CBI approach, Met (1999) introduced that content should be materials which are cognitively engaging and demanding for the learner, that extend beyond the target culture. Stoller (2008, p.59) regards CBI as an 'umbrella term' for approaches that combine language and content learning, although different degree of emphases may be placed on the two areas.

Second language acquisition theories support CBI. For example, CBI aims to provide students with meaningful and comprehensible input in context, which, according to Krashen (1985), is the essential condition for language acquisition to take place. In the similar vein, Met (1998) pointed out that natural language acquisition occurs in context, and CBI provides a meaningful context for natural communication to take place. Since students are provided with opportunities to negotiate meaning and exercise productive skills in natural communication, they work out to produce "comprehensible output" which can facilitate their target language learning (Swain, 1985, 1993). CBI also allows students to engage in cognitively challenging content materials and tasks which would promote their higher-order thinking skills and develop Cognitive Academic Language Proficiency (CALP) (Cummins, 1992). Since the input in CBI is mostly authentic and meaningful, it enhances motivation (Butler, 2005). In a nutshell, CBI which has its dual focus on both content and language learning receives support from different SLA theories.

2.2 MODELS OF CBI: ADJUNCT MODEL

Met (1998) proposed a continuum of content and language integration that ranges from the most content-driven end, with more emphasis on the mastering of content over language, to the most language-driven end, with more importance placed on the mastery of language skills. Brinton, Snow and Wesche (1989) proposed there models of CBI program, theme-based model, sheltered model, and adjunct model, which can be applied in second/foreign language classes. Theme-based model falls on the continuum of the more language-driven position, sheltered model falls in the continuum of the contentdriven end, and the adjunct model serves both content and language goals and lies in the middle of the continuum. Adjunct model can be adopted in EFL context where EFL teachers are knowledgeable with the subject content and are capable of designing various teaching activities to foster students' language skills. This type of program is relatively less researched in the EFL context, thus this paper will adopt this CBI model and illustrate the design and tasks implemented for this course.

2.3 EMPIRICAL STUDIES ON CBI AT THE TERTIARY LEVEL IN TAIWAN

Among the limited studies which adopted CBI at tertiary level in Taiwan, different focus in terms of content and language has been reported. In addition, students' perceptions regarding the effectiveness of CBI also yielded differences from study to study. With more emphasis on enhancing students' reading ability, Tsai and Shang (2010) examined the impact of content based literature curriculum on EFL students' reading performance. 101 English major sophomores participated in this study. Students' reading performance and attitude towards the effectiveness of the course were examined. The result indicated that students' reading comprehension and critical thinking ability were improved. Students also reported difficulties in comprehending complex concepts when explained in English. Emphasizing on both content and hospitality language development, Lo and Sheu (2008) reported on the development and evaluation of an ESP project. 16 English major EFL learners participated in this project. Both content knowledge such as urban culture, scenic spots, and hospitality language training were introduced throughout the project. The result of the study reported students' positive gains both on the content knowledge and hospitality language skills. Lo and Sheu (2008) contributed the success of the project to a variety of task-oriented activities and practicum involved in this project. Participating students also reported on their needs to enhance their listening ability in adjusting to different accents of world Englishes and to improve their verbal and nonverbal skills in guided tours.

In the content driven end of the CBI subject courses in Taiwanese tertiary level, Lee (2007) reported on the result of a CBI program in the course "Molecular Biology" for juniors in a medical school in Taiwan. From the questionnaire, 37 students who enrolled in the course reported that the CBI instruction affected their learning of content knowledge in a negative way. Students revealed that from this CBI course, their English skills were not particularly improved, and their learning of content knowledge suffered because all English medium instruction procrastinated the progress of the course. Cheng, Chang, Chen, & Liao (2010) examined student perspectives regarding two CBI courses, a content-driven and a language-driven CBI course, with English major subjects. The results indicated students preferred the language driven CBI to the content driven CBI and believed more language-skill training course were needed for their future career.

Within the mixed results in the existed CBI studies in Taiwan, most studies were conducted with English major students who have more target language exposure. Thus, their reported gains in content and language learning might not be totally reflective for the effect of their enrolled courses. In addition, the existed CBI courses have mostly targeted at developing students' separate linguistic skills, such as reading or speaking. More integrated tasks aiming at developing all aspects of language skills for students should be weaved into CBI subject courses. Since most research has been conducted with English major students, a clearer picture of how to effectively implement CBI subject courses with dual emphases on content and language with non-English major students is still fuzzy. Thus, a more balanced CBI working model should be established for subject courses in tertiary level which allows students to develop their content knowledge and at the same time to help enhance all aspects of linguistic abilities.

2.4 TEACHING "CROSS-CULTURAL COMMUNICATION" WITH CBI

The course "Cross-Cultural Communication" is offered as a compulsory course in many Taiwan university curriculum. As the title of the course suggested, it aims to develop students' ability to communicate effectively in cross cultural context when they encounter interlocutors whose languages, beliefs, backgrounds, and communication styles may vastly differ from their own. When students are equipped with the knowledge of different cultures, are familiarized with their respective beliefs, values, and communication patterns, and are aware of the possible barriers in intercultural communication, it could minimize the cross-cultural conflict and enhance the effectiveness of communication.

"Culture", according to Kramash (1996, p2) is defined as "the attitudes and beliefs, ways of thinking, behaving and remembering shared by members of that community." This concept is differed in two types (Moran, 2001). Bic "C" refers to the surface structure of culture which focuses on the visible forms of culture, such as food, art, clothing, gesture, architecture, etc.,. Small "c" studies the deep structure of culture which is the invisible forms of culture associated with perceptions, beliefs, communication styles, cultural norms, and social organizations. As globalization brings more and more cultures into contact with one another, it increases the potential of cross-cultural communication and miscommunication. To enhance successful cross-cultural communication, this course intends to familiarize students with not only Bic "C" but taps into small "c" within distinctive cultures in the world. With different linguistic tasks designed, it also aims to have students explore the differences and similarities between these cultures and the culture of their own. Students will be acquainted with effective linguistic skills in making successful cross-cultural communication at work and in interpersonal exchanges.

3 CURRICULUM DESIGN

The design of the curriculum is specified as follows: subjects, course objectives, content knowledge objectives, language learning objectives, syllabus design, course implementation, evaluation and assessment.

3.1 SUBJECTS:

Totally, sixty students (15 male, and 45 female students) enrolled in this class. These are non-English major sophomores from a university in Northern Taiwan. These students are from school of Education and a variety of senior abroad programs are available for them. Besides, this university has one of the biggest international student population in Taiwan, and thus, students have more chances for language and cultural exchange with international students in class or on campus. This course is offered as a compulsory course since being equipped with ability to engage in effective cross cultural communication is essential for these students. The class meets two hours a week for 18 weeks. The subjects have been studying English for more than 10 years. As for their English proficiency levels, most students fall in the range of intermediate level as students' TOEIC scores (or other equivalent measures) indicate they varied from 480 to 780, with the average of 575.

3.2 COURSE OBJECTIVES AND SYLLABUS DESIGN:

This course aims to develop students' content knowledge of cross cultural communication both in theory and in actual practice. It also intends to enhance students' linguistic abilities through different tasks designed. Thus the course objectives fall in two

aspects, content and language objectives. The syllabus design which integrates content and language learning is also specified as follows.

- (1) Content Knowledge Objectives:
 - a) To understand the basic cross-cultural terms, principles, and theories
 - b) To explore the fundamental types of cultures and corresponding behavior types, and to raise awareness of the possible cultural diversity within these cultures
 - c) To increase students' knowledge of cultural conflict and adjustment
 - d) To explain different patterns of communication that can lead to misunderstandings
 - e) To describe and explore different beliefs, attitudes, values and perceptions regarding relationships, family, work, education, gender roles within some distinctive cultures, and to contrast those with students' own culture
 - f) To gain cross-cultural competence through interpersonal experiences and simulated exercises
- (2) Language Learning Objectives:
 - a) Enhance students' reading ability (via text reading, journal reading, authentic reading material from internet, posters, newspapers, etc.,)
 - b) Improve students' writing ability (via written report, summary writing)
 - c) Develop students' aural/ oral fluency, and presentation skills (via watching video clips, movies, role-plays, oral report, interviews, and oral presentations)
 - Provide students with opportunities for cooperative learning (via group work tasks and a final group project)
 - e) Develop students' critical thinking skills (through evaluating their peers' and their own group project and through sharing different views of cultural phenomenon)
- (3) Syllabus Design:

Week	Topics	Class session coverage	Activities
1	Introduction Definition of culture	Definition of culture Big "C", and little "c"	Group discussion activity
2.3	Cross cultural terms, principles, theories	Hall's concept of high and low context cultures, monochromic vs polychromic cultures; Hofstede's cultural dimensions theory; Sapir- Whorf Hypothesis	Pre-reading discussion, vocabulary work, skimming and scanning, lecture, group discussion

4.	Cultural identity	Awareness of ethnocentrism; knowledge about one's own culture	Lecture, video clips, group discussion
5.6	Cross-cultural conflict and adjustment	Intercultural barriers; direct and indirect communication and conflict styles; Cultural shock- stages of adaptation; re-entry adjustment process	Vocabulary work, video clips on communication styles, textbook reading, group discussion, oral report
7.	Verbal communication	Conversational involvement; directness and indirectness; gender differences in directness and conversation structures	Pre-reading discussion, lecture, role-play on different conversation styles
8.	Nonverbal communication	Gestures and body positioning; facial expressiveness; eye contact; conversational distance	Video clips on 'gestures across cultures', oral discussion
9.	Midterm	In class written test	Written test
10.	Relationships: Friends and Acquaintances	Friendliness VS. friendship; diversity in personal relationships; cross- cultural friendships; Cross-cultural expectations for friendship	Lecture, textbook elaboration, discussion, oral report
11.	Family types and traditions, marriage and divorce	Nuclear and extended family; working wives and husbands; varieties of families; interracial/ international marriages	Film viewing: "My Big Fat Greek Wedding", discussion & written report
12.	Education: Values and Expectations	Diversity in higher education; active VS passive participation; the teacher-student relationship; competition and cooperation	Pre-reading activity, vocabulary work, student elaboration on text, role-play
13.	Work: Practice and Attitudes	Cross-cultural implications of job search; employer-employee relationships; work ethics	Film-viewing:" The Intern", group discussion, oral report
14.	Work: Communicating for international business	International meeting; international emailing; International telephoning	Work shop on resumes, cover letters, lecture, video clips, role- play
15	Gender and Culture	Culture and gender stereotypes; Culture; gender-role ideology; and self-concept; gender differences across cultures	Lecture, video-clips on gender- role stereotypes, group discussion, written report
16.	Group project preparation	Group project in-class discussion; lecture on presentation skills	group discussion, lecture on presentation skills, oral script editing
17, 18	Group project presentation	Final group projects; class survey; final quiz	Peer evaluation, questionnaire, semi-structured interviews

3.3 COURSE IMPLEMENTATION

The reading text used for this course combined both textbook "Beyond Language Cross-cultural Communication" (Levine & Adelman, 1993), "Fifty ways to improve your intercultural skills" (Dignen & Chamberlain, 2009), selected supplemental on-line journal

articles, and other authentic reading materials such as posters, magazine, and newspaper articles. The class usually proceeded with pre-reading discussion questions, followed by pre-reading vocabularies. Students would be instructed to scan for specific information for the completion of reading tasks. After instructor's lecture on the topic, students would be presented with comprehension and discussion question tasks. In groups, students should discuss for the answers, and had representative member(s) to lead discussion and orally report on their responsible questions.

In addition to visual input, audio input such as movies, movie-clips, video-clips were also regularly incorporated in class. For instance, films such as, "My Big, Fat, Greek Wedding", and "The Intern" were used for students to watch and to reflect upon issues such as diversity within a society, high and low context culture, different communication styles across culture, work ethics, gender roles, interracial marriages, and etc... In groups, students were supposed to complete tasks such as to discuss and come up with wellelaborated answers to questions raised on the task sheet, to summarize and provide their reflection and feedback for the films in the written reports. Video-clips such as "Ted talk" and "Voice Tubes" were used in class to discuss issues such as marriage, stereotypes, cultural differences in doing business, communication styles, and etc.,. Students were instructed to take notes while watching the video, and in groups, discuss and verbally report on the key points covered and provide their reflective feedback. The effort in combing different types of input (i.e., both visual and auditory) in class aims to provide students with different means for comprehensible input (Krashen, 1985), encourages students to actively interact with the lecture, to negotiate meanings in the tasks, and to engage in meaningful communication with other peers (Met, 1991).

To integrate all learning skills into a meaningful output, students in groups would also have to do research for selected countries regarding their respective Big "C", the visible part of culture and small "c" elements, the invisible type of culture (Moran, 2001). Students had to provide their feedback and reflection regarding how the respective culture they researched was similar to or different from their own culture. In order to have language and cultural exchanges take place meaningfully for students, they had to interview the international student(s) from the culture they researched on their final project. The interview questions included different aspects covered in class, such as cultural beliefs, perceptions, communication styles, work related etiquettes, etc.,. Finally, an oral presentation was performed for teacher and peer evaluation. This task aimed to provide students with opportunity to integrate and synthesize content knowledge learned via different channels (i.e., lecture, video, research, etc.,) and to make best use of their linguistic abilities for comprehensible output (Swain, 1993). Since students were learning the content information through integrated linguistic tasks, they were able to gain their knowledge and ability on both content and language simultaneously. Figure 1 shows how a new topic is usually introduced in this course, and Figure 2 shows how different language tasks are integrated for students to acquire the content knowledge and at the same time to enhance their linguistic abilities.



Figure 1. The implementation of topics introduced in CBI "Cross-Cultural communication" course.

Figure 2. Integration of task implementation in CBI course "Cross-Cultural communication" course.



3.4 EVALUATION AND ASSESSMENT

For this course, students were evaluated by means of their in-class group participation (20%), completion of group assignments (20%), midterm written exam (30%) and final research project (30%). The rationale behind the extensive group work derives from Vygosky's Sociocultural theory (1978). According to Vygosky, through interaction with a teacher or more experienced peers, learners are provided with "scaffolding" which would support them in understanding the knowledge and also in development of complex skills (1978). Thus, by employing various opportunities for group work, collaborative learning was taking place where less linguistically proficient learners would get help from more proficient counterparts. Also, since attention was not fixated on individual but on a whole group, learners' anxiety was reduced (Crandall, 1999) and thus enhanced their content and language learning.

Along with the above mentioned methods for assessing students' learning outcome, evaluation sheets which specified different criterion in both content and language were provided for each group to evaluate their peer groups' final oral presentations. Lastly, questionnaires and open-ended semi-structured interviews were conducted. The feedback from these instrumentation would help explore how students perceived the effectiveness of their learning outcome both in content knowledge and language learning. It also helped investigate students' perceived effectiveness regarding cooperative learning and development of critical thinking skills.

4 RESULTS OF STUDENT EVALUATION

In terms of students' perceived effectiveness for this CBI adjunct course, the results of questionnaire and semi-structured interviews were revealed as follows: 1) learner perspectives regarding content learning; 2) learner perspectives regarding linguistic enhancement; 3) leaners' perspectives regarding their gains in critical thinking and from cooperative learning.

4.1 LEARNER PERSPECTIVES REGARDING CONTENT LEARNING

For student perspectives on the effectiveness of content learning, the results of a five-point Likert-style questionnaire and semi-structured interviews were revealed. The frequency statistics on mean and standard deviation of the questionnaire based on a fivepoint Likert scale were illustrated in Table 1.

Table 1. Mean Distribution on Students' Perspectives r	regarding the effectiveness of Content Learning.
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Item	Mean	S.D.
1. I have learned what big "C" and small "c" represent in description of culture.	4.37	.610
2. I have learned the basic elements and differences between high-context culture and low-context culture and can give examples of each.	4.35	.577
3. I am aware of different cultural dimensions such as power distance, uncertainty avoidance, individualism vs collectivism, masculinity vs femininity and long term vs short term orientation.	4.30	.671
4. I have learned language we speak can affect or even shape our world view.	4.23	.621
5. I have learned that ethnocentrism is the belief that one's race nation, group, etc., are better and superior than others.	4.32	.676
6. I have learned different stages of cross-cultural conflict and adjustment. The adjustment process in a new culture is like a W-shape diagram: ranging from honeymoon period to finally acceptance and integration.	4.35	.633
7. I have learned the differences regarding "high involvement" VS. "high considerateness" conversation patterns.	4.30	.671
8. I have learned the possible different communication styles existed between high context culture and low context culture.	4.38	.715
9. I have learned different types of nonverbal communications, such as posture & gestures, face and eyes, voices, touch, clothing, distance and etc.,.	4.38	.613
10. I have learned the same nonverbal communication may have different indications across cultures.	4.20	.632
11. I have learned there can be different expectations across cultures for a variety of types of personal relationships, such as marriage and friendship.	4.38	.715
12. I am aware of different expectations can exist on teacher-student relationships, class participations, diversity in higher education across cultures.	4.35	.633
13. I am aware of the different expectations which might exist in work ethics, employer-employee relationship, on-the-job communication skills across cultures.	4.21	.635
14. I have learned the basics in communication for international business, such as international emailing, international telephoning, international negotiating.	4.36	.615
15. I think learning about culture is enriching. The more I learn about others, the more I see my own culture more clearly.	4.23	.621

As displayed on Table 1, positive responses were shown from nearly all items. The high mean scores can be found from students' comprehension of theoretical context to the practice of more hands-on basic skills. From the semi-structured interviews, students pointed out that they learned different beliefs, attitudes, and communication styles associated with different cultures from lectures, their own research projects, and their peer report. Students also revealed that through the video-clips, movies, and group work, the abstract concept in the text became vivid examples which helped them comprehend different conceptual framework associated with the subject. In addition, being able to interview the international student(s) from the culture which they researched on was reported to be particularly helpful in actualizing what they learned from the textbook in real communication.

In elaborating their gains in content knowledge, students pointed out they have learned the big "C" such as food, art, etiquette, and small "c" such as different communication styles, beliefs, and perceptions of various cultures introduced in class. Other gains regarding content knowledge development were their enhanced ability in cross-cultural communication, academic topic research, and cooperative and interactive skills. To gain more insights from students, students can provide their elaborations in mandarin (their first language), and the responses are translated as below. Table 2 listed some of the students' responses and descriptions in these aspects of content knowledge development.

	Table 2. Students' responses regarding content knowledge learning.
Content Knowledge	Student responses
Knowledge of Bic "C" and small "c"	 "I know more about different values and beliefs from different cultures". I have learned these beliefs would be shown on different communication styles." "I have learned some "dos" and "don'ts" in other cultures. And I learn how they are different from Taiwan culture." "I have learned different communication styles, such as in 'high involvement' culture, people speak faster and interrupt others more. In Taiwan, I think we are more like 'high considerateness' culture. We listen and try not to interrupt others."
Cross-cultural communication ability	 "I have learned how to greet people from some culture(s) for the first meeting. For example, we bow to Japanese business partners, but shake hands with people from United States and some European countries. "I have learned how to do 'small talk' in doing business. I have also learned some gestures I should avoid doing, so I would not be rude". "I have learned not to judge people quickly just because they are different from my culture. I try to respect the differences." "I have learned that adapting to a new culture takes time and I may experience ups and downs in the process."
Academic topic research skills	 "I learned how to find academic articles, and some other on-line information. I learn to combine the information to write a final report." "I have learned to find on-line reading and dictionary materials to help me understand the topic. I think knowing how the words and phrases used in different context is important." "I learned that I should never copy things down from other people's work. I learned to paraphrase and give proper reference to the source."
Cooperative and interactive skills	 "I have learned how to work with other members effectively, such as how to help my classmates whose English is not so strong. I also learn a lot from my group member who has very good English ability." "I have learned different communication styles existed not across different cultures but within individuals. Effective communications are the key elements for successful group work." "As a group leader, I have learned how to put together different information from my group members. I learned how to solve disagreements, and how to push my members for the progress of our project."

Table 2. Students' responses regarding content knowledge learning.

4.2 LEARNER PERSPECTIVES REGARDING LINGUISTIC ENHANCEMENT

For student perspectives on the effectiveness of language learning, the results of a five-point Likert-style questionnaire and semi-structured interviews were revealed. The frequency statistics on mean and standard deviation of the questionnaire were illustrated on Table 3.

Item	Mean	S.D.
16. I think my English reading ability has improved with the reading of textbooks and the related research material.	4.37	.637
17. I think my English writing ability has improved because of what is required in the course, such as writing assignment and writing up materials for midterm and final report.	4.13	.791
18. I think my English listening ability has improved because I have to understand the teacher's lecture in class.	4.22	.600
19. I think my English speaking ability has improved because of the in-class role-play exercises, preparing for oral presentations.	4.35	.709
20 I think I have more acquired more vocabularies and phrases and learn how to use them in the proper context.	4.20	.684
21. Overall I think all my English skills have improved because of this course.	4.28	.555

Table 3. Mean Distribution on Students' perspectives regarding the effectiveness of language learning.

As revealed from Table 3, most students perceived that they improved different aspects of their language skills (M=4.28). In particular, students reported their reading and speaking abilities have improved greatly (M=4.37, M=4.35). Students revealed that reading from a variety of sources such as textbook, on-line reading, journal articles, and magazines, etc., have helped greatly with their reading. Students indicated that reading skills learned in class such as reading for the gist and for specific information helped them comprehend better and faster with the different reading sources needed for their final project. In addition, when encountered unknown vocabularies or phrases, they've learned to comprehend the meanings in context which helped enhance their vocabulary acquisition and overall comprehension. With the difficult journal articles, students would also seek help in their group from more capable peer(s) and also verified their understanding with their instructor. As for improved speaking abilities, students pointed out that they were provided with a variety of occasions to speak up such as oral report, role-play, interview, and final oral presentations. These diverse channels for using spoken language have allowed them to improve their abilities in speaking the target language.

In addition, students have also reported their improvements in listening and writing skills. With all English medium instruction, majority of the students reported that it was

very helpful in improving their listening ability. Some less proficient students did report the difficulty in comprehending the lecture because they could not keep up with the speed of the instructor. However, these students were able to pick up the missing information from their peers and from the reading resources, and gradually were able to get the gist of the lecture. Viewing video clips (i.e., Ted. Talks, Voice Tubes) and movies were also reported to be interesting and helpful in enhancing their listening skills. Furthermore, students believed the final research project had pushed them to synthesize their readings effectively in order to write and to speak in organization. It has also helped them to evaluate and edit their own language accuracy and fluency, and to perform a proper oral and written report, which has bettered their receptive and productive skills.

4.3 LEARNER GAINS IN CRITICAL THINKING AND FROM COOPERATIVE LEARNING

For student perspectives on group learning and the development of critical thinking, the results of the questionnaire and interviews were also revealed. The frequency statistics on mean and standard deviation of the questionnaire from a five-point Likert scale were illustrated in Table 4.

Table 4. Mean Distribution on Students' perspectives regarding the effectiveness of cooperative learning and development of critical thinking.

Item	Mean	S.D.
22. Doing group project helps me learn language skills from the more capable peers in my group.	4.20	.684
23. Doing group project helps me understand better about the content which I would not be able to understand it on my own.	4.35	.685
24. Doing group project allows me to be less anxious in preparing and doing the oral presentation.	4.03	.863
25. Evaluating other students' performance makes me aware of their language problems (i.e., grammatical mistakes, pronunciation errors, etc.,) which helps me to reflect upon my own problems.	4.17	.642
26. Evaluating other students' performance allows me to learn some important issues which can help me understand the content better.	4.25	.704
27. From the peers' and teacher's feedback, I know better about how to improve my own presentation skills.	4.48	.595

As revealed from Table 4, engaging in group work did help most of the students be less anxious, particularly when they engaged in writing or speaking tasks beyond their current proficiency level. It could also be observed that students' critical thinking abilities were enhanced via peer group report. Specifically, students pointed out that with the specific criterion provided while evaluating their peers' oral presentation, they were able to listen attentively for the content and pay close attention to fluency and grammatical errors in their presentation. They would provide these observation notes to feedback their peers and also used them as reminders for their own speech improvement.

According to the interview, most students expressed their preference in group work. In completion of a group final project, students revealed they learned how to work effectively with others, how to get help from the more proficient member, and how to help the less linguistically capable peers. Some students reported that they have gained deeper understanding of the content while solving problems for their members. Others elaborated that differences did not only exist between different cultures. The individual differences within their own groups were apparent and they were able to solve their disputes by exercising some of the communication skills learned in class. These examples demonstrated that students were able to bridge the gap between the unknown and the known from their peers' assistance (scaffolding) and to critically evaluate the useful information in enhancing their own knowledge and abilities.

5 DISCUSSION

From the student evaluation elaborated above, it validated this CBI subject course in its benefits on students' content and language learning. In addition to students' perceived effectiveness, student gains of content knowledge were evident from the result of their midterm exam (M=75.33, SD=8.678) and their improved work on written and oral final projects. This result is congruent with some of the CBI research conducted in tertiary level in Taiwan from which students were able to improve in their reading skills, critical thinking abilities, and operational content knowledge (i.e., Lo & Sheu, 2008; Tsai & Shang, 2010; Tseng, 2015). The findings also confirmed the effectiveness of the curriculum design for this CBI course, which integrated consistent and meaningful input, and created a zone of proximal development (Vygotsky, 1978) for comprehensible output.

From the result of student feedback on content learning, students elaborated on their knowledge not only in the theoretical aspects of culture and cross-cultural communications, but in their openness and respect for cultural differences and their expanded knowledge in doing research paper. In terms of linguistic gains, students reported their improvement in different language skills, although in different strength respectively. Thus, the effectiveness of this CBI course is in line with previous studies in which CBI fosters academic growth while also develops language proficiency (Crandall, 1993; Short, 1997; Stoller, 2004).

The incorporation of different meaningful mediums as the comprehensible input such as textbook, on-line authentic reading material, lecture PPT, teacher hand-outs,

movies, and video clips was reported as beneficial (Flowerdew & Miller, 1992), interesting, and motivating for students to have deeper understanding and interaction with the content knowledge. Thus, when the emphasis is on meaningful and relevant content other than the language form itself, language acquisition increases rapidly (Met, 1991).

In addition to comprehensible input, the productive tasks such as written reports and final oral presentations in this course have created the proximal zone for language learners to produce comprehensible output (Swain,1985, 1993). Swain (1985) claimed that:

"Simply getting one's message across can and does occur with grammatically deviant forms and sociolinguistically inappropriate language. Negotiating meaning needs to incorporate the notion of being pushed toward the delivery of a message that is not only conveyed, but that is conveyed precisely, coherently, and appropriately. Being 'pushed' in output, it seems to me, is a concept parallel to that of the 'i + I' comprehensible input (pp.248-249)."

Thus, students were pushed to get their messages across not only from the simultaneous role-plays, interviews but from the formal report as in the written research paper and oral presentations in this class. Being able to practice, edit, rehearse, and present language formally allows students to be pushed to use precise, coherent, and appropriate language and consequently enhance their overall linguistic ability.

Finally, with the extensive use of group work in this course, participating students were supported by their peers from which "scaffoding" was taking place when less linguistically capable students were helped while interacting with more capable members in their group (Vygosky, 1978). In fact, the peer support in this study extended from getting help with problematic language structure to clarifying meaning of the puzzled content knowledge. Therefore, peer support was working effectively as students reported that they had deeper understanding of the content and were able to produce better language with the help of their peers, a result in line with previous findings (Hattie, 2009; Mangelsdorf, 1992; Wilkinson, 2015). Group work also helped alleviate anxiety in making errors (Slavin & Kaweit, 1981), as students pointed out that they were less nervous while working in groups. In addition to cooperative learning, students' gains on critical thinking ability from evaluating peer groups' oral report were also revealed from their ability in correcting and editing their own written report and their own oral presentations. When students were provided with the opportunity to observe, attend to, and reflect upon the content and linguistic elements via certain criterion (i.e., evaluation sheets) for their peers' report, they were able to activate their critical thinking skills. Accordingly, they could improve the effectiveness of their own learning, both in content and language.

6 CONCLUSION

This paper intends to report on the curriculum design of a CBI based course, "Cross-Cultural Communication", and to explore the learning outcome on both content and language improvement from students' perspectives. From the findings, the perceived success of this course highlighted a few essential elements for a CBI course to be effectively implemented in the tertiary level in an EFL context: (1) the integrated tasks which interweave all language skills, (2) meaningful, relevant, and multiple sources of information as comprehensible input, (3) meaningful and organized context for comprehensible output; and (4) clear guidelines and criterion for group work and group evaluation. It is clear that CBI, when adopted sensibly with well-planned curriculum syllabus and tasks. can provide students with comprehensible input which stirs up students' genuine interest and motivates them to actively seek to understand the content knowledge. It also creates the best arena for students to acquire their linguistic skills by pushing them to perform the concise, coherent and more accurate target language. The working model of this CBI course has enable students to be more focused in obtaining the informative knowledge, in becoming more linguistically fluent and accurate, and in climbing the scaffolds to maximize learning effectiveness through the cooperative learning.

This study had its limitations in that the course was conducted with a group of students with cross cultural encounters on campus because of the big international student population in this university. Other students in a more homogeneous context might not have the motivation or opportunities to actualize cross cultural communication on campus. In addition, this study is mainly examined from the learners' perspective. Future studies may conduct pre and post assessment on measuring students' actual language performance to get a more objective data of students' language learning progress. Furthermore, the nature of this course is closely related to language learning since language, culture, and communication are intrinsically interconnected with one another. It is thus suggested that the methods and procedures implemented in this study be further tested in other CBI courses with subjects in different disciplines to further validate the findings of this study and to allow this model to be evaluated from different perspectives.

REFERENCES

Brinton, D.M., Snow, M.A., & Wesche, M. (2003). *Content-based second language instruction*. Ann Arbor: The University of Michigan Press.

Butler. Y. G. (2005) Content-based instruction in EFL contexts: considerations for effective implementation. *JALT Journal*, *27*(2), 227-245.

Cheng, M. C., Chang, J. C., Chen, Y.C., & Liao, Y.S. (2010). Do They Want the Same Thing? Learner Perspectives on Two Content-Based Course Designs in the Context of English as a Foreign Language. *The Asian EFL Journal, 12*(4), 1-18.

Crandall, J. A. (1993). Content-centered learning in the United States. *Annual Review of Applied Linguistics*, *13*, 111–126.

Crandall, J. (1999). Cooperative language learning and affective factors. In J. Arnold (Ed.). *Affect in Language Learning* (pp. 226-245). Cambridge: Cambridge University Press.

Cummins, J. (1992). Language proficiency, bilingualism, and academic achievement. In P. Richard-Amato & M. A. Snow (Eds.), *The multicultural classroom: Readings for content-area teachers* (pp. 16-26). New York: Longman.

Dignen, B. & Chamberlain, J. (2009). Fifty ways to improve your intercultural skills. London: Summertown Publishing Ltd.

Flowerdew, J. and Miller, L. (1992) Student perceptions, problems and strategies in second language lecture comprehension. *Regional English Language Centre Journal*, 23(2), 60-80. https://doi.org/10.1177/003368829202300205

Hattie, J. (2009). *Visible Learning: A synthesis of over 800 meta-analyses relating to achievement.* London: Routlege.

Mangelsdorf, K. (1992). Peer reviews in the ESL composition classroom: What do the students think?. *ELT journal, 46*(3), 274-284. https://doi.org/10.1093/elt/46.3.274

Met, M. (1991). Learning language through content: Learning content through language. *Foreign Language Annals 24* (4), 281–295.

Moran, P. (2001) Teaching culture: Perspectives in practice. Boston: Heinle.

Krashen, S. D. (1985). The input hypothesis: Issues and implications. New York: Longman.

Lee, C.B. (2007). An evaluation of a content-based instruction program: A case study of Molecular Biology. *Journal of General Education, China Medical University*, *11*, 25-48.

Levin, D. & Mara, A. (1993). *Beyond Language: Cross-Cultural Communication*. New Jersey: Prentice Hall.

Lo, Y.F. & Sheu, C.M. (2008). The design, implementation and evaluation of an English tour guide project. *The Asian ESP Journal.* 4 (2), 79-95.

Met, M. (1991). Learning language through content: Learning content through language. *Foreign Language Annals*, 24, 281-295.

Met, M. (1998). Curriculum decision-making in content-based language teaching. In J. Cenoz & F. Genesee (Eds.), *Beyond bilingualism: Multilingualism and multilingual education* (pp. 35-63). Philadelphia, PA: Multilingual Matters.

Met. M. (1999). Content-based instruction: Defining terms, making decisions. *NFLC Reports*. Washington, DC: The National Foreign Language Center.

Short, D. (1997). Reading and writing and social studies: Research on integrated language and content in second language classrooms. In M. A. Snow & D. M. Brinton (Eds.), *The content-based classroom: Perspectives on integrating language and content* (pp. 213-232). New York: Addison-Wesley Longman.

Stoller, F.L. (2002). Promoting the acquisition of knowledge in a content based course. In J. Crandall & D. Kaufman (Eds.), *Content-based instruction in higher education settings* (pp. 109–123). Alexandria, VA: TESOL.

Stoller, F. (2004). Content-based instruction: Perspectives on curriculum planning. *Annual Review of Applied Linguistics*, *24*, 261–283.

Stoller, F. L. (2008). Content-based instruction. In N. Van Deusen-Scholl & N. H. Hornberger (Eds.), Second and Foreign Language Education (pp. 59–70). New York: Springer.

Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. Gass, & C. Madden (Eds.), *Input in second language acquisition* (pp. 235-253). Rowley, MA: Newbury House.

Swain, M. (1993). The output hypothesis: Just speaking and writing aren't enough. *The Canadian Modern Language Review*, 50, 158-164.

Tsai, Y. L. & Shang, H. F. (2010). The impact of content-based language instruction on EFL students' reading performance. *Asian Social Science*, 6(3), 77-85.

Tseng, C.T. (2015). Implementation and Perspectives of a Content Based Instruction Course in an EFL Context. *International Journal of English Language Teaching*, 3(8), 1-18.

Vygotsky, L.S. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.

Wilkinson, D. (2015). English-medium content courses: student approaches and strategies to increase comprehension levels. *International Journal of Learning, Teaching, and Educational Research*, 11(3), 1-16.

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