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How to Promote Comprehension and Participation in CBI Courses: The SIOP Model*

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This study investigated the possibilities of the Sheltered Instruction Observation Protocol (SIOP) model in promoting effective Content-Based Instruction (CBI) courses for English as a foreign language (EFL) college learners. Having examined CBI instructors' way of teaching and students' response to it through the analyses of data collected from observation, proficiency tests, the students' answers to a survey form and a questionnaire, the study produced research findings suggesting that the SIOP guided CBI instructors could be more sensitive to the structures of lessons and address the linguistic challenge the students might face in a CBI course while making deliberate efforts to increase the level of teacher-student interaction and student-student interaction. The study showed the potentials of the SIOP not only as an observation and rating tool but also as guiding principles with which CBI instructors are able to develop, evaluate and refine their way of instruction and thereby contribute to promoting the students' comprehension and participation. It also suggested that follow-up studies need to be conducted to provide a more comprehensive picture of the effectiveness of the SIOP model for college-level CBI courses.

I. INTRODUCTION

This study was an attempt to provide suggestions about how to implement effective content-based instruction (CBI) courses by investigating CBI instructors' way of teaching and the students' response to it as well as examining their level of comprehension of content concepts and linguistic development. Through active participation and high level of comprehension in the CBI courses, it is expected that college-level English language learners (ELL) are able to improve their English proficiency up to the level appropriate to

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their age and cognitive abilities (Crandall & Kaufman, 2002; Leaver & Shekhtman, 2002). In particular, the study employed Sheltered Instruction Observation Protocol (SIOP) as a tool by which the CBI instructors were supposed to develop, evaluate and refine their way of teaching at three stages of instruction: preparation of lessons, measurement of effectiveness of instruction, and evaluation after the lessons (Echevarria, Vogt, & Short, 2004).

The study was based on the two considerations: First, the majority of the learners do not have enough opportunities to use English language outside the classroom in a typical EFL situation (Brown, 2000, p. 193). Thus, the classroom should be considered a best place to learn and use English. Second, the college-level English program should assist the adult-learners to be able to perform academic and professional activities in English at each field of study and career development. Since English has become an international language, even traditional EFL learners are asked to use English “to access, understand, articulate, and critically analyze conceptual relationships within, between, and among a wide variety of content areas” (Kasper, 2000, p. 3). For college EFL learners to acquire such a level of English proficiency, they need to be assisted to obtain what Cummins (1981, 2000) called cognitive academic language proficiency (CALP) rather than to be satisfied with basic interpersonal communication skills (BICS).

Having employed the SIOP model, the current study investigated how the SIOP would contribute to implementing effective CBI courses by taking a look at what took place in the CBI classrooms led by the SIOP instructors and how the students responded to the CBI courses with the extent of their linguistic improvement and that of the content comprehension examined. The study was guided by following research questions:

1. Would the SIOP help implement effective college-level CBI courses in an EFL situation like Korea? In what way would the SIOP contribute to making the CBI course effective enough to increase the students' level of comprehension and participation?
2. How much linguistic improvement and content-enhancement would the students gain when they are taught by the SIOP guided CBI instructors?

II. RESEARCH BACKGKROUND

1. Content-Based Instruction (CBI)

Second Language Acquisition (SLA) studies have shown that language acquisition is further facilitated and motivation increased if the information acquired is highly relevant to students' personal and educational goals (Brinton, Snow & Wesche, 1989; Brown, 2001;

Crandall & Kaufman, 2002; Flowerdew, 1993a; Kaufman & Crandall, 2005; Pica, 2002; Snow, Met & Genesee, 1989). Based on the Communicative Approach (CA) or Communicative Language Teaching (CLT) approach, CBI was originally proposed for the English as a second language (ESL) students residing in an English-speaking country. The basic notion of CBI is that language should be taught in conjunction with the teaching of academic subject matter. Snow, Met and Genesee (1989) suggested that CBI “provides students with comprehensible input, opportunities for meaningful use of academic language, and practice with the cognitively demanding, decontextualized language tasks required in academic learning” (Schlepppegrell, Achugar & Orteiza, 2004, p. 69).

Schlepppegrell (2004) pointed out that “approaches to content-based language instruction can be enriched through an understanding that language and content are never separate” (p. 155). Moreover, CBI views “the grade-level curricular as relevant, meaningful content” (Echevarria et al., 2004, p. 9). Thus, English Language Teaching (ELT) professionals should seek to develop the students’ proficiency by incorporating information from the subject area that the students are likely to study. In an EFL context, it is a general observation that the students do not have enough opportunities to practice four language skills in an authentic situation. Unless they are given the chances to use the language utilizing their educational experience and cognitive abilities, it would be hard for the college-level EFL learners to acquire a desired level of proficiency with which they can fulfill themselves in each field of academic and professional arena. Considering such a reality, it will be even more significant to implement effective CBI courses for college-level EFL learners.

As Brinton et al. (1989) discussed, CBI can be designed and implemented in a number of different ways considering the specifications and objectives of each program through the models of immersion programs, sheltered instruction (SI), adjunct programs, and theme-based instruction as well as in various hybrids of these basic models. Likewise, a type of CBI can be chosen depending on “the instructional situation and resource, the requirement of the institution, and the needs of the ESL students in the program” (Kasper, 2000, p. 10). Pica (2002) pointed out that “across academic and professional arenas, these and other incarnations of content-based L2 approaches aim to support students in learning the L2 they need for current, concurrent, or future success at school, in the workplace, and broader social context” (p. 2).

1) Sheltered Instruction (SI)

Among the three prototype models for CBI, SI, adjunct programs, and theme-based instruction, the current study focused on the possibilities of SI that could be exerted in EFL contexts. A typical SI course can be considered as “a content course taught by a ‘language

sensitive' content specialist to a segregated group of learners, thereby 'sheltering' the second language learners from native speaking students" (Flowerdew & Peacock, 2001, p. 211) in American universities. In such SI courses, "content teachers will naturally make adjustments and simplifications in order to communicate more effectively with their second language audience" (Flowerdew & Peacock, 2001, p. 181). However, the instructors practicing SI do not attempt to make the contents comprehensible by reducing the readability demands of reading materials and texts. They only adapt the texts and other resource materials to the point where the content concepts are left intact (Short, 1991). Echevarria et al. (2004) provided a definition of SI as follows:

An approach to teaching that extends the time students have for receiving English language support while they learn content subjects. SI classrooms integrate language and content while infusing sociocultural awareness. Teachers scaffold instruction to aid student comprehension of content topics and objectives by adjusting their speech and instructional tasks, and by providing appropriate background information and experiences. The ultimate goal is accessibility for English learners to grade-level content standards and concepts while they continue to improve their English language proficiency. (p. 223)

While SI plays a major role in a variety of educational program designs as a part of ESL program, a late-exit bilingual program, a two-way bilingual immersion program, a newcomer program, or a foreign language immersion program (Genesee, 1999), it is observed that there is lack of consistency across SI classes. That is, "one SI classroom does not look like the next in terms of teachers' instructional language; the task the students have to accomplish; the degree of interaction" (Echevarria et al., 2004, p. 13). Thus, it is rather natural that the learning strategies taught to and used by the students as well as the availability of appropriate materials are not same across SI classes. Studies focusing on SI practice have shown that a great deal of variability exists in the design of SI courses and the delivery of SI lessons even among trained teachers (August & Hakuta, 1997; Berman, McLaughlin, Minicucci, Nelson & Woodworth, 1995; Kaufman et al., 1994; Sheppard, 1995).

While having noticed such a lack of consistency across SI classes, Echevarria et al. (2004) found common features in effective SI lessons in that "there is a high level of student engagement and interaction with the teacher, with other students, and with the text, which leads to elaborated discourse and critical thinking" (p. 14). SI instructors were also observed to consider "their students' affective needs and learning styles" as "they strive to create a non-threatening environment where students feel comfortable taking risks with language" (ibid.).

2) Sheltered Instruction Observation Protocol (SIOP) Model

The current study employed SIOP model which was developed as a result of seven years of research project by Echevarria and Short from 1996 to 2003. Supported by the Center for Research on Education, Diversity and Excellence (CREDE), the two researchers investigated what would make SI lessons more effective in the four schools respectively located in the east coast and the west coast of the United States. While having acknowledged the effectiveness of SI, they noticed that there was no concrete research investigating the features of SI that can enhance and expand the instructors' teaching practice. Thus, the researchers contrived the SIOP for the purpose of measuring the extent of effective implementation of SI. The SIOP was originally designed as an observation and rating tool for reviewing the participating instructors in the classroom. However, during the course of the project, the participating instructors discovered its potential as a tool for lesson planning and reflection on their teaching as well (Echevarria et al., 2004; Short & Echevarria, 1999).

The protocol is composed of 30 items grouped into three sections: Preparation, Instruction, and Review/Evaluation. Items are further clustered under Instruction, for example: Building background, Comprehensible Input, Strategies, Interaction, Practice/Application, and Lesson Delivery. Items are scored using a Likert Scale ranging from 0 to 4. Their project of field testing showed that certain areas of professional growth were identified: the instructors' use of the observation tool for lesson planning, self-monitoring, and reflection. The research findings indicated that "English learners in sheltered classes with teachers who had been trained in implementing the SIOP to a high degree improved their writing and outperformed the students in control classes by receiving overall higher scores" (Echevarria et al., 2004, p. 216). The researchers also reported that the CBI lessons guided by the SIOP were found similar to the quality lessons of regular classrooms. A different feature found in the SIOP lessons was that they have provided care for linguistic needs (Gurarino, Echevarria, Short, Forbes & Reuda, 2001). See Appendix A for the SIOP.

2. Two-Tiered Skill Model for Language Proficiency

According to Cummins' (1981, 2000) two-tiered skill model, there are two levels of language proficiency: BICS and CALP. BICS involves the ability to conduct face-to-face communication with basic interpersonal or functional literacy, which is observed to develop within one or two years. On the other hand, the second tier, CALP includes "the acquisition of academic literacy skills, that is, the ability to use the L2 both to understand complex, often decontextualized linguistic structures, and analyze, explore, and deconstruct the concept presented in academic text" (Kasper, 2000, p. 5). Based on the research findings of empirical studies in Canadian contexts, Cummins (1980c) suggested that it

would take about five to seven years, “on the average, to approach grade norms in English CALP” (Baker & Hornberger, 2001, p. 116).

Baker and Hornberger (2001) summarized the research on the acquisition of BICS and CALP in that “L2 BICS will be acquired only through exposure to ‘acquisition on rich’ environment. However, this is not a necessary condition for development of L2 CALP” (p. 117). Since CALP “tends not to develop automatically from social interaction but is of key importance to academic success” (Kern, 2000, p. 133), it would require different linguistic environment in which the learners are able to develop their literacy skills which are the basis of the CALP. Schleppegrell (2004) pointed out that “literacy is a form of social action where language and context co-participate in making meaning” (p. 5) rather than the simple ability to read and write.

Considering the suggestion that, in working with college-level adult learners, “many foreign language educators recommended the application of students’ knowledge and the personalization of questions and other tasks, in order to take into account adults’ schemata, which are highly complex and sophisticated” (Leaver & Shekhtman, 2002, p. 17), the notion of the interdependence hypothesis can be taken seriously in promoting L2 CALP for EFL college learners. The interdependence hypotheses states as follows:

To the extent that instruction in L_x is effective in promoting cognitive academic proficiency in L_x, transfer of this proficiency to L_y will occur provided there is adequate exposure to L_y (either in school or environment) and adequate motivation to learn L_y. (Leaver & Shekhtman, 2002, p. 122)

The interdependency hypothesis argues for the interdependence between L1 and L2 CALP, which strongly suggests that college-level EFL program should be able to take advantage of the adult learners’ cognitive maturity in an active way by providing advanced learning contexts in which the learners can develop necessary literacy skills in communicative ways. In this vein, the linguistic experience that the students would have in the CBI courses will be indispensable to their effort to acquire CALP especially taking account of the observation that “a high level of L2 BICS does not imply a commensurate level of CALP” (Baker & Hornberger, 2001, p. 117).

III. METHODS

1. SIOP-Guided CBI Courses

The SIOP-guided CBI courses refer to the content-courses delivered in a nonnative

language, English, in which “the SIOP operationalizes sheltered instruction by offering teachers a model for lesson planning and implementation that provides English learners with access to grade-level content standards” (Echevarria et al., 2004, p. xi). Since the CBI courses observed in the current study employed the SI as a way of practicing CBI in a more effective way, the issue of how to conduct effective SI was at the center of the study. Having considered that the SIOP directly addresses the major topics of SI such as “scaffolding, learning strategies, literacy techniques, and use of meaningful curricular and materials” (Echevarria et al., 2004, p. 215), a CBI course which is guided by the SIOP should be presumably effective enough to meet the goals of CBI rationale and thereby will be able to help the students improve their language proficiency as well as earn the content knowledge that their peer group of native speaking students might gain through corresponding academic courses.

However, a caution should be used when interpreting what a SIOP-guided CBI course would look like. Each SIOP-guided CBI course will adopt its unique way of realization of SI principles according to the contents and the different genres of discourse that they have to deal with. That is, one SIOP-guided CBI course, by its appearance, can be very different from the other in terms of types of activities and focus of lessons as well as the way the lessons are organized with different format of interactions between the instructor and the students and among the students. For instance, the current study recruited three volunteer-instructors who wanted to improve their teaching practice for their CBI classrooms. The three CBI courses were all different in terms of course objectives, the texts, classroom activities, and the way each would expect her students to do their assignments among others. Thus, as discussed in 1) Sheltered Instruction (SI) of II. Research Background, such “lack of consistency” across SIOP-guided CBI classroom is “somewhat predictable” (Echevarria et al., 2004, p. 13) considering the fact that each course would focus on a different academic area with the different course description. The SIOP-guided CBI instructors should be expected to use wide variety of instructional strategies and techniques that can best serve to achieve the course objectives and help the students meet the linguistic challenge.

2. SIOP Workshop

A SIOP workshop was developed and set up for three instructors and two observers in order to make themselves familiar with the SIOP and shared their understanding of each item as well as discussed how to implement the items in their classrooms. In particular, they talked about whether the SIOP should be modified to accommodate the college-level CBI courses’ features since the previous studies with the SIOP were all conducted in secondary school settings. They agreed that care for linguistic needs can be more implicitly

practiced in order not to interrupt the content delivery and other activities as well as to give the students more authentic environment for which a CBI course might have a competitive power. They pointed out that hands-on experience and use of supporting materials can be less manifested in college-level liberal arts CBI courses. Based on the discussion at the workshop, five items of the SIOP (#5, #7, #17, #19, & #20) were excluded from the protocol so that the total number of items by which their classroom observation would be conducted resulted in remaining 25 items. The workshop was supported by Hudec and Short (2002a, 2002b), and Short, Hudec and Echvarria (2002). The workshop was held twice during the winter break before Spring 2005 when the participating instructors were practicing the SIOP and opened their classes for the current study.

3. Participants

Seventy-three students who were taking CBI courses taught by the four instructors involved in the study (three SIOP and one non-SIOP instructors) at a university in Seoul took part in the study by producing speaking and writing samples through pre- and post-test as well as filling out a survey form and a questionnaire. They ranged from Sophomore to Senior majoring in various fields of study such as English, Education, Education Psychology, Law, Child Welfare, Political Science, History, Business Administration, Culture and Tourism, Chinese, Library Science, Life Technology, Korean, and Information and Mass Communication. Not every student taking the courses produced all the data so that the number of students who actually contributed to each data was indicated in the Results and Discussion section.

The four classes were referred to as SIOP class 1, 2, 3 and non-SIOP class, respectively: SIOP class 1, *Introduction to English Drama*, with 14 students; SIOP class 2, *Poets, Poetry and Post-Modern Self*, composed of 8 students; SIOP class 3, *Theories in Language Acquisition*, for 18 students; non-SIOP class, *English and International Relations*, consisting of 34 students. There were one native speaker of English (NS) student in SIOP class 2, one Chinese, one Japanese and one Chinese-Australian student in SIOP class 3. The SIOP instructors took part in the SIOP workshops before the semester and in the subsequent discussions held during the semester while the non-SIOP instructor did not. Two of the three SIOP instructors were Korean speakers and the other was a Korean-American while the non-SIOP instructor was a Korean speaker.

Meanwhile, the four instructors who voluntarily participated in the study had five years to thirteen years of teaching experience at university settings. SIOP class 1 and 2 instructors specialized in English drama and English modern poetry, respectively while the instructors of SIOP class 3 and the non-SIOP class majored in English education and Educational Linguistics, respectively. All the four instructors were faculty members of English at the

university. There were also two professional observers who were full-time researchers working for the Center for Teaching and Learning in the university, part of whose job was to support the faculty research by providing comments with classroom observation and lesson monitoring. Table 1 presented the students' self-assessed English proficiency levels.

TABLE 1
Self-Assessed English-Proficiency

	SIOP class 1				SIOP class 3				Non-SIOP class			
	General*		Spoken		General		Spoken		General		Spoken	
	n	%	n	%	n	%	n	%	n	%	n	%
Beginning	1	14.3	1	14.3	0	0	1	6	0	0	1	3
Low-intermediate	5	71.4	6	85.7	5	29.4	8	47	12	36	14	42
High-intermediate	1	14.3	0	0	9	53	5	29.4	18	55	16	49
Advanced	0	0	0	0	3	17.6	3	17.6	3	9	2	6
Total	7	100	7	100	17	100	17	100	33	100	33	100

* The participating students were invited to rate their English proficiency in two ways. For the general level of English proficiency, they were to include reading skills and grammar knowledge while spoken proficiency was referred to the level of listening and speaking skills in English. Meanwhile, only two students from SIOP class 2 answered the questionnaire so that they were not included in the report of quantitative analysis of the questionnaire.

4. Research Data

1) Observations

Each class of the three SIOP instructors and one non-SIOP instructor was observed twice during the semester: the first observation was done right after the add-drop period was completed (March 18, 21, & 25, 2005, respectively) and the second one at a later phase of the semester (May, 13, 27, 31, & June 1, 2005, respectively). The observed classes were videotaped for the purpose of detailed monitoring and analysis. For the observers to be able to assign a more valid score to each SIOP item, not only in-class observations but also viewing the videotape several times afterward may be "useful so that the teacher and observer are able to share the same point of reference when discussing the lesson" (Echevarria et al., 2004, p. 180).

Even though the SIOP instructors and the observers, during the SIOP workshops, discussed each item of the SIOP as to whether they would work out as the appropriate observation tools and agreed that five items (#5, #7, #17, #19, & #20) were not appropriate to evaluate the effective implementation of SIOP lessons especially for college-level CBI courses, they, after the first observation, held a discussion as to whether the remaining 25

items were good enough to gauge the effectiveness of CBI lessons and whether some of the items should be revised or eliminated as non-applicable items. They came to an agreement that a few items still needed more clear guidelines in terms of how they should be understood in order for more valid rating to be offered: For example, *Can content objectives and language objectives be integrated to the same ones?* That is, unlike the CBI courses in secondary schools, language objectives are not easily separated from content objectives in college CBI courses. Thus, if the content objectives are clearly defined and presented, then it can be considered that language objectives were fulfilled as well. As a result, same score can be given to the two items, or the score given to the item of content objectives can be strongly reflected in that given to the item of language objectives even though the instructor did not seem to present language objectives in a clear way. Then, for instance, Preparation 1 and 2; Lesson Delivery 23 and 24 of the SIOP, Appendix A, could have same or similar scores.

As for Preparation 4, the observers raised a question about whether the rating should be based on the quality of the supplementary materials or on the quantity of them: *In case that the instructor did not use various forms of materials, but used only one such as blackboard effectively delivering the contents of the lecture, then should she deserve full score with the item?* Regarding Preparation 6, the observers and the instructors agreed on what meaningful activities should mean: they were referred to as the engagement or participation in the classroom activities from attentive listening to the lecture to the active participation in the pair-work and group discussion. Thus, it did not have to be manifested with a productive mode only.

2) A Complementary Survey to the Observation

With respect to the Comprehensible Input 10, 11, and Lesson Delivery 26 of the SIOP, Appendix A, in particular, they agreed that these items would require not only the observers' ratings but also the students' evaluation since they should be the students themselves who were able to make final judgment concerning whether the types of input were comprehensible enough to or delivered in proper pace for the students. Thus, a complementary form of survey, at the discussion after the first observation, was developed to tap into the students' own evaluation about these items. For the second observation, the complementary survey for the students was added. See Appendix B for the complementary survey to the observation.

3) Speaking and Writing Proficiency Improvement Tests

The speaking and writing data produced by the EFL learners who took the courses with

the three SIOP instructors and one non-SIOP instructor were collected twice in order to see how much linguistic improvement the students had achieved through taking the CBI courses. The pretest was done in the third week of the semester and posttest in the 14th and 15th week of the semester. According to the research findings of Short and Echevarria (1999), and Echevarria et al. (2004), the students who took the courses with the SIOP instructors showed better achievement than those who studied with the non-SIOP instructors in linguistic abilities as well as the content knowledge. The participating students were invited to the computer testing room in the school and produced their speaking and writing samples through answering to the microphone and typewriting with the keyboards. Three speaking prompts and one writing prompt developed by the researcher were given for the pre- and post-test each. The speaking prompts were on tape by a NS and presented on the computer screen; the writing prompt was shown on the computer screen. Their performance was rated by a professional NS rater according to the Multimedia Assisted Testing of English (MATE) full score guideline: there were 10 levels from Level 1 assigned to Moderate Emerging to Level 10 reserved for Expert Expert for the speaking score rating while 6 levels were arranged from Level 1 indicating Moderate Low to Level 6 referring to Expert for the writing score rating. Two NS raters participated in providing the scores to the students' work for the pre- and post-test, respectively. See Appendix C for each set of prompts.

4) Questionnaire

In order to obtain the participating students' personal information such as self-assessed English proficiency, their level of understanding of the contents, evaluation on the instructors' teaching and language skills, a questionnaire was developed. On the final day of the semester, the students of the four classes were invited to fill out the questionnaire. While almost every student of the two classes, SIOP class 3 and the non-SIOP one, was able to answer the questionnaire, those in the other two SIOP classes were not due to some miscommunication between the researcher and the instructors about the exact date of data collection with the questionnaire. Thus, only seven students from SIOP class 1 and two from SIOP class 2 respectively answered the questionnaire. Due to the small number of students, the answers from the SIOP class 2 were not included in the quantitative analysis. Each copy of the questionnaire with the student's answers on it was randomly numbered so that the comments and suggestions provided by the students were indicated with the number only since they were supposed to fill out the questionnaire anonymously. See Appendix D for the questionnaire.

5) Discussions among the SIOP Instructors and the Observers

In addition to the SIOP workshops held before the semester, the SIOP instructors and the observers got together twice, on May 4 and July 25, 2005, to discuss how they might evaluate the effects of taking the SIOP workshops and how much and in what way the SIOP had affected the way the instructors conducted their lessons as well as what would prevent them from implementing a more effective SIOP-observed classroom. Since the instructors were reluctant to let their discussion be recorded, the researcher wrote down what they spoke as detailed as possible during the discussion sessions. Then, content analysis was employed to present major themes emerged in the discussions. Through the constant comparative method for content analysis suggested by Merriam (1998), four major themes indicated as sharing points were noticed among the three instructors and the two observers while individually mentioned changing features were pointed out as well. See Table 9 for the results of content analysis of the discussions.

IV. RESULTS AND DISCUSSION

1. Results of Observation

The two observers in general found that the SIOP instructors brought out several modifications in their way of providing instruction and interacting with the students from Observation 1 to Observation 2 while the non-SIOP instructor did not show noticeable modifications even though she appeared an experienced and at the same time natural instructor delivering well-structured lesson and motivating her students with humor. But the non-SIOP instructor specializing in Educational Linguistics should be understood differently from the NS instructors in ESL settings: She was sharing her L1 with the students' and informed of how L2 students are increasing their L2 proficiency so that she must have been much more knowledgeable and even skillful in handling CBI courses than at least the NS instructors who were not systematically trained for teaching the group of students who struggled to grasp meaning in another language. Even without the particular model, the SIOP, she seemed to practice many features of quality lesson with which the SIOP model shares. In addition, she was willing to open her class for the present study as a control group, which would imply her confidence in her way of teaching and reflected in relatively high scores with the SIOP observation.

Another point that the observers mentioned was that all the instructors earned higher score in the 2nd observation than in the 1st one except for SIOP instructor 1 implying that there might be observation effects or Hawthorne Effect (Porte, 2002, p. 58) as well as they

became more skillful in abiding by principles of the SIOP. That the instructor of SIOP class 1 ended up with a lower score at the 2nd observation could be due to the fact that the SIOP 1 class observed for the 2nd time was not a regular lesson, but a class hour spent with students' group presentations, one of the final assignments, and the instructor's announcement about the final exam and post-speaking and writing data collection. It could have provided a clearer picture of how she conducted her lesson under the normal circumstances at a later moment of the semester if another observation had been done with other classes.

Meanwhile, the cronbach α was measured to see intraclass correlation coefficients between the two observers. In the first observation, for the SIOP classes 1 and 2 showed high interrater reliability with $\alpha=.741$ ($p=.001$), and $.649$ ($p=.007$), respectively. But for the SIOP class 3 and the non-SIOP class, the cronbach α was low enough to say that there was no interrater reliability ($\alpha=.454$ at $p=.073$, $-.356$ at $p=.769$, respectively). For the second observation, SIOP class 1, 2 and the non-SIOP class showed high interrater reliability ($\alpha=.883$ at $p=.000$, $.815$ at $p=.000$, and $.978$ at $p=.000$, respectively). But the SIOP class 3 revealed low interrater reliability with $\alpha=.060$ ($p=.440$). Thus, the observation results were provided in full with each observer's scores being independently indicated. It suggested that it require experience as well as discussion to have a full command of the SIOP and be able to become reliable observers. Having considered the fact that the observers showed higher reliability with the second observation than that with the first observation, it would be reasonable not to expect that even the professional observers can perform highly reliable job in their first attempts in assigning the scores to the SIOP items. Table 2 showed the SIOP scores that each instructor earned with 1st and 2nd observation, respectively.

TABLE 2
SIOP Scores Measured on Classroom Observations

	1 st Observation		2 nd observation	
	Observer 1	Observer 2	Observer 1	Observer 2
S1*	76**	77	65	69
S2	53	79	89	93
S3	79	90	89	96
Non-S***	76	89	87	90

* S stands for SIOP instructors; ** the number means the score out of 100;

*** Non-S refers to Non-SIOP instructor.

2. Results of the Complementary Survey

Meanwhile, the results of the complementary survey showed how the students evaluated

the five features of what was going on in their classroom, which was indicated with the average score assigned to each item. The bigger the number was between 1 and 5, the more effectively the evaluated feature of the class was realized. Table 3 presented the students' responses to the five features: 1. the instructor's speech rate, 2. the appropriateness of the content concepts, 3. the level of students' engagement, 4. links between previous lessons and current one, and 5. the pacing of lesson delivery. One interesting thing was that the students' evaluation on the pacing of lesson delivery was not closely reflected on the instructor's speech rate. That is, even though they thought that the instructor's speech rate was appropriate to their level of proficiency, they still did not feel that the lesson delivery was, suggesting that linguistic challenge might be less burdensome than that of what they had to deal with the contents and classroom activities. Another point to be mentioned was that the students' evaluation on their engagement in lessons was indicated with the lowest numbers among those for the five features implying that there need to be more concern for students' participation in the class. Overall, the students at the SIOP classes responded to all the items with higher rating scores, except for Items 2 and 3, than the students at the non-SIOP class. However, *t* scores calculated showed no statistically significant difference between the SIOP classes and the non-SIOP class across all the five items. Significant difference was found only with the pair between SIOP class 1 and 3 concerning the item 4 ($t(28)=-2.117, p=.043$).

TABLE 3
Students' Response to 5 Features of the Classroom

Class	1	2	3	4	5
S1	4.14	4.15	3.23	3.62	3.46
S2	4.63	3.88	2.5	3.75	3.63
S3	4.18	4.06	3.59	4.41	4.12
Non-S (18)*	3.89	4.11	3.22	3.44	3.44

* Out of the 33 students at the non-SIOP class, only 18 students provided their responses.

3. Results of Speaking and Writing Proficiency Tests

Out of the students who voluntarily took the speaking and writing proficiency tests, 22 students from the SIOP classes produced speaking data through both speaking test I and speaking test II, thus making it possible to calculate *t*-score in order to tell whether they improved speaking proficiency throughout the semester. The data produced by the NS student at SIOP class 2 and one Korean student who took more than one course among those recruited for the current study were not included in the data analysis. With the $t(21)=3.528$ at $p=.002$, it can be said that the SIOP students showed significant

improvement from speaking test I to speaking test II. Meanwhile, 29 non-SIOP students produced speaking data through speaking I and II tests and showed no significant difference, thereby assumed no improvement from speaking test I to II ($t(28)=1.564$, $p=.129$). For the writing proficiency improvement of the SIOP students to be examined, the data that 20 students of the SIOP classes produced twice through writing test I and II were used: there was no significant difference between writing test I and II with $t(19)=.438$ at $p=.666$. Among the three SIOP classes, SIOP class 3 showed significant difference between speaking test I and II ($t(13)=6.835$ at $p=.000$), but no significant difference between writing test I and II ($t(11)=.561$ at $p=.586$). SIOP class 1 did not produce any significant difference between speaking test I and II, nor between writing test I and II, respectively. SIOP class 2 could not produce t-score since there were only three students who took both speaking tests.

For speaking test I, among the SIOP classes, Class 3 showed the highest mean score (Mean=5.93; SD=1.385) followed by Class 2 (Mean=4.50; SD=2.121) and Class 1 (Mean=2.00; SD=.535). This order was also observed among the SIOP classes for Writing test I as well: Class 3 (Mean=3.67; SD=.483), Class 2 (Mean=3.50; SD=.707). Since the number of students taking the first set of tests in SIOP class 2 was only two so that it was hard to say they represented the proficiency level of the class. However, this proficiency difference measured by the speaking and writing tests remained same from the first throughout the second set of the tests.

On the other hand, of the 29 non-SIOP students who took both speaking test I and II, there were 10 students (34.4%) who improved from speaking test 1 to 2, 2 students (7%) who remained at the same level, and 17 students (58.6%) who earned lower grade for the second speaking test. Out of 22 SIOP students, there were 14 students (64%) who showed improvement, 4 students (18%) staying at the same level, and another 4 students (18%) showing degeneration at the second speaking test. This indicated that more percentage of SIOP students demonstrated progress from speaking test I to speaking test II. Meanwhile, out of 20 SIOP students who took both writing test I and II, 2 students (10%) earned higher level at the second test, 15 students (75%) remained at the same level, and 3 students (15%) did poorer job with the second test. Compared with the speaking proficiency level, it appeared that the writing proficiency tended to remain unchangeable at least with the SIOP students in the current study.

Why the students performed in the speaking and writing tests in the way they did would require careful interpretations rather than saying that taking a CBI course offered by SIOP instructor was beneficial enough to improve their speaking proficiency. Consideration should be given to the several facts: First of all, the students' proficiency level should be considered. It was SIOP class 3 whose students speaking proficiency was rated the highest among the involved classes at the pre-test and showed significant progress of speaking

skills at the post-test. Then, it would suggest that the students pass a threshold level of proficiency in order to maximize their linguistic gain through taking a CBI course. At the same time, it will be necessary for a CBI instructor who finds her students' proficiency level not high enough to address her students' linguistic challenge in a more rigorous way. Second, it would be basically not easy to produce linguistic improvement measured by a particular test within a period of one semester so that there need to be subsequent research to follow the students' progress over a longer period. For the future studies, if the students' proficiency improvement is measured in a more individual mode through interview or pair/group discussion for example, then it could provide more information concerning their possible improvement of language use in a detailed way. With regard to whether the SIOP and non-SIOP students' performances showed improvement from the first tests through the second ones, Table 4 provided the summary.

TABLE 4
Comparison of Mean Scores between the Pre- and Post-test(s)

	Test Type	Mean	SD	Number of students	T-score	Degree of freedom	p- value
SIOP students	Speaking I	3.05	1.43	22	3.528	21	.002*
	Speaking II	4.55	2.20	22			
	Writing I	3.25	.716	20	-0.438	19	
	Writing II	3.20	.834	20			
Non-SIOP students	Speaking I	4.72	1.53	29	-1.564	28	.129
	Speaking II	4.07	2.27	29			

* p-value was significant.

4. Analysis of the Answers to the Questionnaire

1) Comprehension of the Contents

The questionnaire analysis centered on how the students evaluated their level of comprehension of the contents, the extent of topic enhancement and that of English language development, the way their instructors taught, the overall satisfaction with the course. The analysis also showed that the students' answers to Question 5, *How well can you understand the contents of the course?* were closely reflected in their answers to Question 8, *How would you evaluate your preparation for this course?* While no student of the SIOP 1 picked up option d) *I could not prepare for most classes*, two students of the SIOP 3 and four students from the non-SIOP chose the option d) for Q 8. That is, for example, exactly same number of students who marked option a) *I cannot understand most*

of the contents for Q 5 also responded to Q 8 with option d), implying that less they prepared for the classes, the less likely they were able to understand the contents. Even though the students' preparation might not be the single factor influencing the extent of their comprehension of the content concepts, it suggested that the students be guided to prepare for each lesson before coming to the class. Especially considering their answers to Item 2 of the complementary survey (the appropriateness of the content concepts) for which the non-SIOP students rated it with the highest number, 4.11 out of 5, the lower percentage of the students who marked option d) *I can understand almost everything* for Q 5 of the questionnaire would indicate that familiarity with the content may not guarantee high level of comprehension with each lesson. The students' answers to Q 5 were summarized in Table 5.

TABLE 5
Q 5: How Well Did You Comprehend the Contents of the Course?

	SIOP class 1		SIOP class 3		Non-SIOP class	
	n	%	n	%	n	%
a)*	0	0	0	0	4	12.1
b)	1	14.3	1	5.9	8	24.2
c)	5	71.4	11	64.7	15	45.5
d)	1	14.3	5	29.4	6	18.2
Total	7	100	17	100	33	100

* a) I cannot understand most of the contents; b) I can understand almost half the contents; c) I can understand more than 70% of the contents; d) I can understand almost everything.

2) Topic Enhancement

With Question 9, *Do you think that the content this course dealt with is helpful for you to understand (the topic of the course)?* 6 of the 7 students answering to the question provided comments (SIOP class 1). Three students (3, 4, 6) acknowledged their increased understanding of the course topic, English Drama, saying that "*I could understand the dramas and also the history, culture, and myth of their background*"¹ (3); "*it was good to acquire new knowledge through English dramas and their authors that I didn't know before – translated*"² (4); "*I think that it helped me a lot to understand English dramas – translated*" (6). One student (5) specifically mentioned that the course was beneficial to improving her linguistic skills while the other two made suggestions that "*it could've been*

¹ The students' comments, feedback and suggestions, throughout the paper, were cited as they were without any error-correction. The quotations were indicated in italics.

² The students' data provided in Korean were translated into English and indicated by 'translated' right after the quotation.

much better if we had discussed the whole works rather than working on only the parts assigned by the Professor – translated” (1); *“We dealt with four works this semester. They were all helpful. But in order to earn in-depth understanding, I wish we had studied a fewer works with more time being spent on each work – translated”* (2).

Ten students of the 17 in the SIOP class 3 provided comments. While 3 students (2, 6, 14) clearly stated that the course helped them enlarge their understanding of language acquisition: *“very helpful to understand of acquisition”* (2); *“it tells me almost everything about human’s language acquisition. I get clear idea of how humans acquire language”* (6), the other 7 students said that taking the course was beneficial to improving language skills (1, 5) and communication skills (4), motivating themselves to make more serious efforts to improve language skills (9) and reflecting on their own experience as language learner which in turn let them comprehend the contents in a more clear way (16), as well as showed a high degree of overall satisfaction with the course (3).

Meanwhile, 14 students out of the 33 in the non-SIOP class made comments. Eight students (1, 3, 4, 5, 7, 13, 17, 21) clearly mentioned that the course contributed to enlarging their perspectives and understanding of the topic, English and International Relations. Two students (3, 18), in particular, appreciated the presentation opportunity while one student (6) pointed out that it was memorable for everyone to use English. But four students (6, 20, 23, 32) complained that they could not understand very well and wished that the instructor had delivered the contents in a more clear way while one student wanted more *“help from teacher to enhance English language skill itself”* (33). Meanwhile, one student from SIOP class 2 provided comment: *“since I had to speak in English, it somewhat removed my fear to speak in English. It also motivated me to study English harder”* (2).

That some students in the non-SIOP class revealed their frustration apparently caused by their insufficient understanding of the contents and feeling lack of support for linguistic improvement could be partly attributed to the class size. The non-SIOP class had the largest number of students among the 4 courses involved in the study. The 34 students enrolling in the non-SIOP class might not have been given same amount of opportunities to use the language or to check their comprehension as did the students at the SIOP classes, which could lead them to feel left behind without being taken care of appropriately. Their comments on Question 9 were also partly consistent with their answers to Question 7, *If you think that you cannot understand the contents very well, what do you think makes it hard to understand?* Eight students of the non-SIOP class picked up option a) *Because the instructor does not deliver her lecture in a clear way* while none of the students of the SIOP classes answered the question with option a). Table 6 presented how the students evaluated their achievement of topic enhancement.

TABLE 6
Q 9: How Well the Course Help You Achieve Topic Enhancement

	SIOP class 1		SIOP class 3		Non-SIOP class	
	n	%	n	%	n	%
1*	0	0	0	0	0	0
2	0	0	0	0	1	2.94
2.5	0	0	0	0	1	2.94
3	1	14	0	0	3	8.82
3.5	0	0	1	5.9	1	2.94
4	4	57	4	23.5	21	61.76
4.5	0	0	1	5.9	0	0
5	2	29	11	64.7	7	20.6
Total	7	100	17	100	34	100

* 1) It did not help at all; 3) It helped to some degree; 5) It helped me a lot.

3) Linguistic Improvement

For Question 10, *Do you think that this course helped you improve your English language skills?* 9 students out of the 33 in the non-SIOP class, 6 of the 7 in SIOP I, and 10 of the 17 from SIOP class 3 provided comments. Three in the non-SIOP class specifically acknowledged the positive effects of taking the course in terms of improving their language skills: “By using English whole time, it makes English more comfortable. And presentations in English seemed easier than before” (4); “I can improve the listening skills well in this class” (13); “It helped me a lot since I had many writings, presentations, homework as well as had to listen to my classmates’ presentations” (21); “through the presentations and two exams, I felt that my English writing skills has improved a little bit” (22).

In SIOP class 1, five out of the 6 students providing comments expressed their sense of improvement of English language skills such as: “I got used to English language since I used English all the class hours and through the Internet” (1); “It feels that English skills improved somewhat since I had to use English all the time. The classmates also motivated me in terms of improving English skills – translated” (5). From SIOP class 3, eight of the 10 students supplying comments mentioned as follows: “vocabulary” (1); “Presentation is very helpful to improve our English speaking level and self-confident” (2); “I was able to learn more professional and advanced vocabularies and motivated to use them – translated” (7); “Helpful especially in communication and presentation” (9); “It increased motivation and helped me access more English” (15).

However, some students did not seem satisfied with the CBI courses in terms of serving their expectation to improve language skills: “Teacher does not emphasize language point

at all. They also emphasize contents that they wanna convey” (33, non-SIOP class); “I don’t think that my English skills have improved – translated” (6, SIOP class 1). Such comments might reflect the students’ expectation that the CBI course should be able to take care of linguistic development of the students in a more explicit way, which would deserve CBI instructors’ attention. Table 7 showed how the students evaluated the courses’ contribution to their linguistic development. Table 8 presented how satisfied the students were with the course in general.

TABLE 7
Q 10: Did the Course Help Improve English Language Skills?

	SIOP class 1		SIOP class 3		Non-SIOP class	
	n	%	n	%	n	%
1*	0	0	0	0	0	0
2	0	0	0	0	4	12.5
3	5	71.4	2	11.8	17	53
4	1	14.3	8	47	7	22
5	1	14.3	7	41.2	4	12.5
Total	7	100	17	100	32	100

* 1) It did not help at all; 3) It helped to some degree; 5) It helped a lot.

TABLE 8
Q 14: How Satisfied with the Course in General?

	SIOP class 1		SIOP class 3		Non-SIOP class	
	n	%	n	%	n	%
1*	0	0	0	0	0	0
2	0	0	0	0	4	12.5
2.5	1	14.3	0	0	0	0
3	1	14.3	0	0	16	50
4	4	57.1	4	23.5	7	21.9
4.5	0	0	1	5.9	0	0
5	1	14.3	12	70.6	5	15.6
Total	7	100	17	100	32	100

* 1) I could not be satisfied with the course at all; 3) I was satisfied with the course to some degree; 5) I was satisfied with the course to a greater extent.

4) Suggestions for Improvement

Upon the request of making suggestions for improving similar CBI courses in the future, three students at SIOP class 1 suggested students’ native language (L1) use, more active use of e-class as well as the session for question and answer (1), wished to have more invited speakers (5), and expressed their satisfaction and regret that “I am very satisfied

with the classes. It is my regret that I could not prepare for each class very well – translated” (6). On the other hand, eight of the 17 students in SIOP class 3 gave suggestions with three things being focused: 1. More opportunities to express, 2. Need for feedback on their works, 3. Need for collaboration. Three students wanted more opportunities to participate: “Add group discussion. No internet work” (1); “I think that much more presentation could give us many of things such as improving our own English or self-confident” (2); “I wish that we had fewer students so that we were able to have more discussion” (16). Two students asked feedback on their works: “Q &A’s feedback is needed” (13); “We took two MATE tests. I wanted to (know) the scores of it and weekly Q & A assignment. If you give feedbacks for, I think it will be more helpful” (14). One student hoped for collaboration that “it will be good to form study groups and have opportunities to confirm what we would learn (through on-line)” (15). Meanwhile, one student complained that “it was a little bit burdensome to have to do a group project during the final exam period” (5) while the other pointed out that “more number of students would take the course if the students were to be aware that it is helpful and easier to understand than expected, and not too difficult to avoid it even though it is offered in English – translated” (7).

Nine out of the 33 students in the non-SIOP class offered suggestions mainly concerning three things: 1. Need to have more NS instructors, 2. Proper amount of work to do, and 3. More rigorous classroom management and language-care. Two students wanted to have NS instructors saying “Keep having foreign teachers so we could have English skills improved and have opportunities to listen from various aspects” (2); “We should invite some native speakers to give lectures about the course” (17). Another two students asked more opportunities to produce: “more discussions by couple groups” (8); “giving much group presentations and individual presentations” (18). But the other two students complained about the amount of work they had to deal with: “... less presentations? Personally dislike presentations although researching for it helps” (7); “too much homework and project. It made me so exhausted” (13). Another student suggested that the instructor “check whether students are following” (12) while the other two provided such suggestions as “having more strict principles for students” (31); “I wanna include language point lesson or comments during a class as a special lecture during at least a few times” (33).

The suggestion made by the students at SIOP class 1 concerning L1 use was reflected by the instructor’s observation and indicated with the mean scores of the proficiency tests that the students’ English proficiency was lower than that of other CBI courses. Thus, she allowed the students to use L1 when they took in-class midterm and final exam. This would require a careful consideration that, depending on the nature of classroom activity and demand level, it would be reasonable to balance L1 and L2 use in order to bring about

maximum effects in comprehending content concepts while securing the linguistic improvement in the L2 (Cook, 2001). Meanwhile, the students at SIOP class 3 pointed out that feedback from the instructor should be necessary even though the works on which they did not get feedback were not graded with the quality of the job, but with whether they did or not. The instructors should be reminded of the importance of providing proper and timely feedback on any type of students' work.

The non-SIOP students' suggestions concerning the classroom management and principles seemed consistent with what the SIOP instructors discussed and the observers found with the classroom observations: the SIOP instructors discussed that they became more conscious of the organization and structure of lessons even though their trials were not always successful; the observers found that the non-SIOP instructor did not change very much from observation 1 to observation 2 while the SIOP instructors appeared to be more interactive with the students at the second observation, implying that they became more sensitive to whether the students were following.

5. Analysis of Discussions of the SIOP Instructors and Observers

Discussions were held twice mainly for the purpose of sharing experience and insights that the instructors and observers might earn while they were trying to implement SIOP guided lessons. First of all, all the three instructors agreed that being aware of the SIOP items let them become more sensitive to the structure of the lessons. For instance, SIOP instructor 1 said that she found herself more conscious of the organization of each lesson. In particular, she tried to conduct review at the end of each class even though her attempts were not always successfully realized. She also put down key words on the blackboard more often in an effort to increase the students' comprehension as well as made herself more accessible to the students through creating a comfortable classroom environment.

Instructor 2 mentioned that she was assured that the way she had practiced teaching was in line with the SIOP principles, which in turn gave her confidence in what she had done with each activity in her class. She still changed some parts of her practice: she tried to interact with the students in a more active manner through question and answer. Even when the students did not answer her questions, she waited for about from 20 seconds to one minute to give them enough time to think and prepare since she came to agree that waiting time should not be considered as the wasted one, but as the thinking time according to the suggestions of the SIOP. She even called on particular students to solicit the answers as a means of promoting interaction with the students realizing that "teacher-elicited responses from nominated learners may, in students' eyes, legitimize their responses, and this may gradually facilitate their participation" (Burton & Clennell, 2003, p. 47). This change was also noticed by the observers that the instructor 2 mainly lectured in

the first observation, but frequently made questions and patiently waited for the students' answers in the second observation.

Instructor 3 introduced the review time at a first part of the lesson which she did not practice before the SIOP workshop. Through the review, the students were expected to be reminded of what they learned last class and contributed to the current session even with only one key word and a phrase they remembered from the previous lesson. Once they were geared up producing even one word or phrase from the start, it appeared that they became more confident in participation at later phases of the lesson. Another change she attributed to the SIOP workshop was more rigorous use of blackboard to present the points of discussion with the key words. While trying to articulate all the time, she attempted to enhance the students' comprehension by adding another mode of input, written one.

Overall, the instructors acknowledged that the SIOP provided them with the opportunities to reflect on their way of teaching. Especially, the two instructors teaching SIOP class 1 and 2 had not taken education-oriented workshops so that participating in the SIOP workshops and subsequent discussions itself was quite an enlightening experience in their teaching career. With the help of the SIOP workshop, they came to understand what would lead to effective instruction and ways to determine if students are following. Their discussion sounded consistent with the research findings of Echevarria et al. (2004) in that the SIOP instructors in their study used the SIOP for lesson planning, self-monitoring, and reflection.

As the instructor of SIOP class 2 especially mentioned, there should be a support concerning how to deal with the students who are linguistically more challenged. It is a general expectation that many of CBI instructors are not familiar with SLA, and thus would struggle to deal with the student population who are to study in another language relying on their own private experience and personal observation. A scientific understanding of who their students are will help the CBI instructors cope with a classroom situation often consisting of students of wider range of proficiency levels in the target language. Discussion or workshop with such a topic will be beneficial to the instructors' efforts to figure out how to manage to produce best learning outcome with the nonnative speaking students.

However, they also admitted that participating in a workshop a few times does not guarantee instant improvement of teaching practice, much less improvement of the students' academic performance. They recognized that changes in teaching do not take place easily and quickly, and are facilitated by more capable individuals – both colleagues and researchers (Short & Echevarria, 1999). It should be fully acknowledged that professional development for teachers is a complex and multi-faceted endeavor. It would require constant efforts to implement the principles of the SIOP and on-going discussion among the fellow instructors to share their experience and insights along with the support

from the administration. In fact, the participating instructors including the non-SIOP instructor took their courage to open their classrooms for the present study, which in turn revealed their strong motivation to refine their teaching practice and help their students in a more systematic and scientific way. Such a high level of commitment should be also counted in addition to the effects of the SIOP workshop when interpreting the students' improvement of academic performance and linguistic gain as well as the instructors' own growth as teaching professionals. The analysis of the discussion was summarized in Table 9.

TABLE 9
Summary of Discussion Analysis

	Sharing points	Individual changes
SIOP Instructor 1	Became more sensitive to the organization of the lessons; became more interactive with the students; needs for on-going efforts and discussion in order to implement the SIOP principles;	Set up the review session at the end of the lesson; more use of blackboard
SIOP Instructor 2	need to understand their students as nonnative speakers of English	More confident in the way she had taught; frequent use of question and answer; patient waiting for the students' answers
SIOP Instructor 3		Started the lesson with the review of the previous session lesson; rigorous use of blackboard

V. CONCLUSION

1. Answer to Research Question 1

The present study attempted to examine the SIOP model's possibilities in promoting effective and efficient CBI courses for college-level EFL students. In terms of making a CBI course effective enough to enhance the content knowledge as well as improving language skills of the students, a teacher-factor cannot be overemphasized. In particular, the CBI courses conducted in EFL contexts would require more prepared instructors. In that sense, it can be safely said that the SIOP model showed a certain possibility since it seemed to contribute to increasing the instructors' awareness of how to promote students' comprehension of the content concepts as well as encourage their participation. The results of data analyses suggested that the SIOP instructors appeared to actively respond to the challenge the students would face in the CBI courses by first of all trying to increase the level of interaction as well as frequent checks of students' comprehension through which they were able to make the contents more accessible to the students. This tendency was more conspicuously observed as the time went on throughout the semester. Even though they already knew particular concerns addressed in a CBI course such as linguistic

challenge and level of comprehension, the research findings from the observations and discussions showed that the SIOP helped the instructors add more professional sense of organization to their CBI classrooms to deal with such challenges.

While trying to make the contents more comprehensible and to provide more opportunities to use the language, the SIOP instructors seemed to practice “the notion of scaffolding” (Schleppegrell, 2004, p. 156). That is, they became more conscious of each step that the students would go through up to the point of comprehension of content concepts and of participation in the classroom activities. With respect to how to assist instructors with the visible pedagogy of scaffolding, the SIOP model may provide them with the expertise to make the scaffolding process more explicit, which is critical condition in practicing CBI. Above all, the SIOP might provide the instructors with an opportunity to look into themselves figuring out “what kind of teachers they are and how well they are doing” (Bailey, Curtis & Nunan, 2001, p. 22).

However, in order for a study to argue that the SIOP model is effective enough especially for EFL college-level CBI courses, it should be supported by more empirical data for a longer period. With only one semester-long observation and experiment, it is hard to prove its effectiveness in a fuller sense. In addition, one should be careful when interpreting the research findings based on a model originally developed in a different context and applied to another environment. Having been contrived mainly for the secondary school level CBI courses in ESL situation, the SIOP proved itself an effective tool to improve the instructors’ teaching practice accommodating the students’ language concerns as well as providing grade level appropriate content knowledge through the 7-year long research project of Echevarria et al. (2004). But the present study can be considered as a stepping stone for further study investigating how the SIOP model is to guide the CBI instructors with the appropriate methodology to deal with college-level EFL population as Echevarria et al. (2004) suggested that “university faculty have also found the SIOP to be useful in courses that specifically address sheltered instruction, as well as in other courses where meeting the needs of English learners is addressed” (p. 179).

2. Answer to Research Question 2

Concerning the linguistic improvement achieved by the SIOP students, the data analysis of the speaking and writing proficiency tests did not clearly show whether their linguistic progress, if any, could be attributed to the fact that they had SIOP instructors. But the data analysis of questionnaire was suggesting that the SIOP students appeared to have improved their language skills with a relatively higher degree of satisfaction compared with that of the non-SIOP students, which was rather supported by the SIOP students’ comments talking about their sense of improvement. However, the study could not control the number

of students at each class involved in the study, be it SIOP class or non-SIOP class. This number factor might be closely related to the level of interaction between the instructor and the students, and among the students both quantitatively and qualitatively. Especially in CBI classes in which a certain amount of interaction should be secured to take care of the linguistic demands as well as content comprehension in a proper way, class size is a critical factor affecting each phase of lesson resulting in a different degree of satisfaction with the way the instructor operates the class and the course itself in general. In addition, it should be also considered that it would take more than at least one semester to show linguistic gains that can be easily measurable. This is another reason to require follow-up studies in order to accumulate empirical evidence upon which the effectiveness of SIOP-led CBI courses might be proved.

As for the content-enhancement, the present study relied on the students' self-evaluation of how well they were able to comprehend and extend content knowledge based on the analysis of the students' answers to Question 5 and 9 of the questionnaire. It seemed that the students at the non-SIOP class struggled more to grasp the meanings and less percentage of the students showed their satisfaction in terms of increasing professional knowledge of the topic. It might not be reasonable to take a look at only one variable among others, whether the students were taught by SIOP or non-SIOP instructor, in interpreting the results. Above-mentioned class size factor might be one of the causes contributing to the different degrees of students' satisfaction and evaluation. Nevertheless, such a different response from the students depending on whether they were studying at the SIOP or non-SIOP classes should be taken seriously and needs to be confirmed with further empirical studies.

At the same time, whenever conducting research with classroom practices, one should bear in mind the three things: "(1) courses are designed to accomplish different goals, (2) teachers vary greatly in their individual strengths, personalities, and teaching styles, and (3) learners differ extensively in the skills they are ready to acquire and in the ways that they learn" (Genesee & Upshur, 1996, p. 265). Only after understanding the inherent complexity of human behavior of learning and teaching, we will be able to evaluate how the instructors teach and find a best way fit for each different group of students.

3. Limitation of the Study

Even though the current study took a form of action research whose main objective may not demonstrate immediate results supported by statistical data, but provide insights and experience through which they are able to make improvement with teaching practice for themselves and colleagues, it could have produced more reliable research findings if it had been conducted with a more rigid procedure of data collection. A comprehensive study

comprising several sub-studies with each one focusing on one aspect of the SIOP classes can offer a fuller picture of the effectiveness of the SIOP model. While the present study looked into the CBI courses offered by Korean speakers only, a further study needs to investigate CBI classrooms taught by NS instructors and see how each group of students would respond to their instructor's way of teaching and whether they would produce different results in terms of content comprehension and linguistic improvement as well as psychological aspects of learning. CBI challenges English language educators to teach English using materials that learners encounter in their regular subject-area classes (Kaufman & Crandall, 2005), which would pose enormous responsibilities on both the instructor and the students in fulfilling their own part and mission as the teacher and the learner. The present study tapped into the possibilities of SIOP model in helping the instructors to meet such a challenge by providing them with practical and research-based information for how to offer effective CBI courses at EFL college settings.

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APPENDIX A

The Sheltered Instruction Observation Protocol (SIOP)

Instructor:	
Course Title:	
Date:	
Grade:	
Lesson: Multi-day or Single-day	
Observer:	
Total Points Earned:	Percentage Score:

Preparation

1. Content objectives: 4 3 2 1 0

Clearly defined content objectives for students(4)

Content objectives for students implied(2)

No clearly defined content objectives for students(0)

2. Language objectives: 4 3 2 1 0

Clearly defined language objectives for students(4)

Language objectives for students implied(2)

No clearly defined language objectives for students(0)

3. Content concepts: 4 3 2 1 0

Content concepts appropriate for age and educational background level of students(4)

Content concepts somewhat appropriate for age and educational background level of students(2)

Content concepts inappropriate for age and educational background level of students(0)

4. Supplementary materials: 4 3 2 1 0

Supplementary materials used to a high degree, making the lesson clear and meaningful (e.g., graphs, models, visuals)(4)

Some use of supplementary materials(2)

No use of supplementary materials(0)

5. Adaptation of contents: 4 3 2 1 0

(e.g., text, assignment) to all levels of student proficiency (4)

Some adaptation of content to all levels of student proficiency (2)

No significant adaptation of content to all levels of students proficiency (0)

6. Meaningful activities: 4 3 2 1 0

Meaningful activities that integrate lesson concepts (e.g., surveys, letter writing, simulations, constructing models) with language practice opportunities for reading, writing, listening, and/or speaking(4)

Meaningful activities that integrate lesson concepts, but provide little opportunity for language practice with opportunities for reading, writing, listening, and/or speaking(2)

No Meaningful activities that integrate lesson concepts with language practice(0)

Building Background

7. Concepts explicitly linked: 4 3 2 1 0

to students' background experiences (4)

loosely linked to students' background experiences (2)

not explicitly linked to students' background experiences (0)

8. Links explicitly made: 4 3 2 1 0

Links explicitly made between past learning and new concepts(4)

Few links made between past learning and new concepts(2)

No links made between past learning and new concepts(0)

9. Key vocabulary: 4 3 2 1 0

Key vocabulary emphasized (e.g., introduced written, repeated, and highlighted for students to see) (4)

Key vocabulary introduced, but not emphasized(2)

Key vocabulary not emphasized(0)

Comprehensible Input

10. Speech: 4 3 2 1 0

Speech appropriate for students' proficiency level(e.g., slower rate, enunciation, and simple sentence structure for beginners)(4)

Speech sometimes inappropriate for students' proficiency level(2)

Speech inappropriate for students' proficiency level(0)

11. Explanations of academic tasks: 4 3 2 1 0

Explanations of academic tasks clear(4)

Explanations of academic tasks somewhat clear(2)

Explanations of academic tasks unclear(0)

12. Techniques: 4 3 2 1 0

Uses a variety of techniques to make content concepts clear (e.g., modeling, visuals, hands-on activities, demonstrations, gestures, body language)(4)

Uses some techniques to make content concepts clear(2)

Uses few or no techniques to make content concepts clear(0)

13. Strategies: 4 3 2 1 0

Provides ample opportunity for students to use strategies (See Glossary)(4)

Provides students with inadequate opportunity to use strategies(2)

No opportunity for students to use strategies(0)

14. Scaffolding: 4 3 2 1 0

Consistent use of scaffolding techniques throughout lesson, assisting and supporting student understanding, such as think aloud (4)

Occasional use of scaffolding(2)

No use of scaffolding(0)

15. Questions that promote higher-order thinking skills: 4 3 2 1 0

Teacher uses a variety of question types including those that promote higher-order thinking skills throughout the lesson (e.g., literal, analytical, and interpretive questions)(4)

Teacher infrequently questions that promote higher-order thinking skills(2)

Teacher does not pose questions that promote higher-order thinking skills(0)

Interaction

16. Interactions: 4 3 2 1 0

Frequent opportunities for interactions and discussion between teacher/student and among students, which encourage elaborated responses about lesson concepts(4)

Interactions mostly teacher-dominated with some opportunities to talk about or question lesson concepts(2)

Interactions primarily teacher-dominated with no opportunities for students to discuss lesson concepts(0)

17. Grouping configurations: 4 3 2 1 0

support language and content objectives of the lesson (4)

unevenly support the language and content objectives (2)

do not support the language and content objective (0)

18. Wait time for student responses: 4 3 2 1 0

Consistently provides sufficient wait time for student response(4)

Occasionally provides sufficient wait time for student response(2)

Never provides sufficient wait time for student response(0)

19. L1 support: 4 3 2 1 0

Ample opportunities for students to clarify key concepts in L1 as needed with aide, peer, or L1 text (4)

Some opportunity for students to clarify key concepts in L1 (2)

No opportunity for students to clarify key concepts in L1 (0)

Practice/Application

20. Hands-on materials and/or manipulatives: 4 3 2 1 0

Provides hands-on materials and/or manipulatives for students to practice using new content knowledge (4)

Provides few hands-on materials and/or manipulatives for students to practice using new content knowledge (2)

No hands-on materials and/or manipulatives for students to practice using new content knowledge (0)

21. Apply content and language knowledge: 4 3 2 1 0

Provides activities for students to apply content and language knowledge in the classroom(4)

Provides activities for students to apply either content or language knowledge in the classroom(2)

Provides no activities for students to apply content or language knowledge in the classroom(0)

22. Language skills: 4 3 2 1 0

Uses activities that integrate all language skills (i.e., reading, writing, listening, and speaking)(4)

Uses activities that integrate some language skills(2)

Uses activities that apply only one language skills(0)

Lesson Delivery

23. Content objectives: 4 3 2 1 0

Content objectives clearly supported by lesson delivery(4)

Content objectives supported somewhat by lesson delivery(2)

Content objectives not supported by lesson delivery(0)

24. Language objectives: 4 3 2 1 0

Language objectives clearly supported by lesson delivery(4)

Language objectives supported somewhat by lesson delivery(2)

Language objectives not supported by lesson delivery(0)

25. Students engaged: 4 3 2 1 0

Students engaged approximately 90-100% of the period (See Glossary)(4)

Students engaged approximately 70% of the period(2)

Students engaged less than 50% of the period(0)

26. Pacing: 4 3 2 1 0

Pacing of the lesson appropriate to the students' ability level(4)

Pacing generally appropriate, but at times too fast or too slow(2)

Pacing inappropriate to the students' ability level(0)

Review/Assessment**27. Review of key vocabulary:** 4 3 2 1 0

Comprehensive review of key vocabulary(4)

Uneven review of key vocabulary(2)

No review of key vocabulary(0)

28. Review of key content concepts: 4 3 2 1 0

Comprehensive review of key content concepts(4)

Uneven review of key content concepts(2)

No review of key content concepts(0)

29. Feedback: 4 3 2 1 0

Regularly provides feedback to students on their output (e.g., language, content, work)(4)

Inconsistently provides feedback to students on their output(2)

Provides no feedback to students on their output(0)

30. Assessment: 4 3 2 1 0

Conducts assessment of student comprehension and learning of all lesson objectives (e.g., spot checking, group response) throughout the lesson (See Glossary)(4)

Conducts assessment of student comprehension and learning of some lesson objectives (2)

Conducts no assessment of student comprehension and learning of lesson objectives(0)

APPENDIX B

A Complementary Survey to the Observation

This survey form was developed to see how the students taking English-medium courses think of some features of what is going on in the classroom. Please answer each question and your cooperation will be highly appreciated. Thank you.

Major:

Grade:

1. Is your instructor's speech rate appropriate for your proficiency level?

(e.g., slower rate, enunciation, and sentence structures)

- ① It is not appropriate at all.
- ② It is not appropriate for the most time.
- ③ It is sometimes inappropriate.
- ④ It is appropriate for the most time.
- ⑤ It is appropriate all the time.

Please provide your own comments on the instructor's speech rate:

2. How appropriate are the content concepts for your age and educational background?

- ① They are not appropriate at all.
- ② They are not appropriate for the most time.
- ③ They are sometimes inappropriate.
- ④ They are appropriate for the most time.
- ⑤ They are appropriate all the time.

Please provide your own comments on the content concepts dealt with in the classes.

3. How much are you engaged in the class? (through making questions and answers, attentive listening, talking to classmates for pair-works or small group discussion.)

- ① I am engaged less than 50% of the period.
- ② I am engaged between 50 - 70% of the period.
- ③ I am engaged approximately 70% of the period.
- ④ I am engaged approximately 70-90% of the period.
- ⑤ I am engaged approximately 90-100% of the period.

Please provide your own comments on how well you have been involved in the classroom:

4. Are there links between past learning (previous lessons) and new concepts (presented in the current classes)?

- ① No links made between past learning and new concepts.
- ② Links are not made between past learning and new concepts to a limited degree.
- ③ Few links made between past learning and new concepts.
- ④ Links are made between past learning and new concepts to a large extent time.
- ⑤ Links explicitly made between past learning and new concepts.

Please provide your own comments on how you think about the links between past learning and new concepts.

5. How do you feel about the pacing of the lesson delivery?

- ① Pacing is inappropriate to my ability level all the time.
- ② Pacing is inappropriate to my ability level for the most time.

- ③ Pacing is generally appropriate, but at times too fast or too slow.
- ④ Pacing is appropriate to my ability level for the most time.
- ⑤ Pacing is appropriate to my ability level all the time.

Please provide your own comments on how you have felt about the pacing of the lesson delivery:

APPENDIX C

Prompts for Each Set of Tests

1st Test

For Speaking Test

1. You are currently participating in an international meeting in which you see a few students from different cultures as well as Korean students. Please introduce yourself to them including such information as your major, hobby and a brief plan for your future. (3 minutes)
2. You won a lottery of one million dollars. What would you do with the money? (3 minutes)
3. Pick up a key word or concept that you learned or discussed during the class hours recently (preferably from a course you are now taking this semester), and explain the word or concept. (30 seconds for thinking; 3 minutes for speaking)

For Writing Test

1. How many English-medium courses (영어강의) are you taking this semester? Pick up one English-medium course that you are currently taking and describe what it is about as well as what motivated you to take the course? What kind of skills or knowledge do you expect to attain at the end of semester? (30 minutes)

2nd Test

For Speaking Test

1. Approaching the end of the semester, you might plan for the summer break. As you complete the final exams and projects for this semester, what would you like to do this summer? (3 minutes)
2. In 2050, Korea will have the longest life-expectancy in the world. What kind of life do you expect to have in your old age? (3 minutes)
3. Pick an exam or assignment you had to take or turn in for a course you are now taking this semester, and describe what and how you had prepared for it. (30 seconds for thinking; 3 minutes for speaking)

For Writing Test

1. What do you think were the interesting (or beneficial) things and challenging (or difficult) things of taking an English-medium course? Compare and contrast the merits and drawbacks of taking an

English-medium course. (30 minutes).

2. If you are a native speaker of English, answer the following question only.

What, for nonnative speaker of English (NNS) students, could be the interesting (or beneficial) things and challenging (or difficult) things of taking an English-medium course? Compare and contrast the merits and drawbacks that NNS students might have taking an English-medium course. (30 minutes).

APPENDIX D

Questionnaire

This questionnaire is to see how the EFL college students think of the content-based English-medium course, how well they can understand the contents, and how the students evaluate the course. Your cooperation will be highly appreciated. Thank you.

1. Self-assessed General English proficiency level
 - a) Advanced b) High-intermediate c) Low-intermediate d) Beginning-level

2. Self-assessed spoken-English proficiency level
 - a) Advanced b) High-intermediate c) Low-intermediate d) Beginning-level

3. Have you ever taken English-medium course (s) at school before this course, English and International Relations?
 - a) Yes b) No

4. If your answer is Yes to the question 3, how many English-medium courses have you taken so far except for this course, English and International Relations?

() course (s)

5. As you are currently taking this English and International Relation, an English-medium course, how well can you understand the contents and the course?
 - a) I cannot understand most of the contents.
 - b) I can understand almost half the contents.
 - c) I can understand more than 70% of the contents.
 - d) I can understand almost everything we are dealing with.

6. If you think that you can understand the contents well enough, what do you think makes them comprehensible? You can choose more than one option for this question.
 - a) Because the contents are easy to understand.
 - b) Because my English-language skills are good enough to understand them.
 - c) Because I have prepared for each class by reading the chapters.
 - d) Because the instructor clearly presents the contents.

Other reasons (Could you please specify what helped you understand the contents?):

