
Content-Based Language Instruction : Investigating its Effectiveness at Three Different English Proficiency Levels

Makiko Okazaki

Introduction

In recent years, interest in content-based language instruction has grown. This is supported by the widely shared belief that language is most effectively learned in context. Originating in sources such as Language Across the Curriculum, English for Specific Purposes, and immersion programs, content-based instruction is now widely used at various institutions conducting ESL and EFL programs.

The basic idea of content-based instruction is that language is best learned when learners are encouraged to use the target language to do something, which involves meaningful content. For example, when this kind of instruction is used at universities in English-speaking countries, non-native students are helped to learn academic subject matter in a second or foreign language. In the process of acquiring information in English, students will develop academic language skills.

In the EFL case, Brinton (1989) introduced the four objectives of the content-based foreign language program at Free University of Berlin :

1. The program offers students an opportunity to activate and further develop their English skills by providing them with continued exposure to English through meaningful tasks and projects which relate to both their social and their academic needs.
2. The program helps the students develop language-processing skills and learning strategies for use after the course as they continue to study or use English at the university or in their future vocations.
3. The program aids the students in the development of more general academic skills important for effective study in the university context.
4. The program offers cultural/sociopolitical insights, which will broaden the students' understanding of English-speaking peoples and provide an informed basis of intergroup communication.

In this program, all students are first-year German students who have had at least six years of English instruction prior to their university studies. Also, it is assumed that the German students had been exposed to traditional methods of English teaching in high school (learning of grammatical structures and acquisition of translation skills rather than the development of strategies for language production and comprehension). Since this EFL situation is similar to the Japanese situation, this program has implications which are relevant to the Japanese setting.

Previous research by the author (1997) indicated that content-based instruction can be expected to bring five advantages to EFL instruction in a Japanese university setting: development of academic language functions; acquisition of overall language proficiency; acquisition of

learning strategies ; enhanced motivation ; and development of cultural understandings. Chamot and O'Malley (1994) emphasized the importance of teaching learning strategies explicitly, stating that students who are mentally active and who analyze and reflect on their learning activities will learn, retain, and be able to use new information more effectively. They identified three major types of strategies : metacognitive, cognitive, and social/affective strategies. Many researchers have noted that enhanced motivation is observed during the process of content-based instruction. Based on the cognitive theory by Brown (1987), Okazaki (1997) examined that the following factors in content-based instruction have a positive effect to enhance motivation ; 1) the use of authentic materials (related to desire for stimulation), 2) meaningful activities (related to desire for activity, stimulation, and knowledge), 3) personal choice of activities (related to desire for manipulation or autonomy), 4) recognition of self-progress (related to desire for ego enhancement), 5) creativity in activities (related to desire for exploration and activity), 6) use of various sensory stimuli (desire for stimulation), 7) appropriate but challenging tasks (desire for exploration and ego enhancement), 8) use of preferred learning strategies (desire for manipulation or autonomy). In content-based instruction, the development of cultural understanding is achieved by using authentic materials such as TV or radio programs, magazines and newspapers, and/or information via Internet. Various themes such as international political issues, regional studies, human rights, and/or environmental issues can be suggested from the aspect of Global Education.

This paper reports the results of students' retrospective evaluations of their English classes at three different proficiency levels and examines

the effectiveness of content-based instruction at each level. At the end of the academic year, students in three different proficiency groups were asked to fill the same questionnaire to evaluate the course and their own learning and progress.

The purpose of the study was twofold: first, to identify the level of students most suitable for content-based instruction; and second, to identify the problems so as to address them to further improve the course.

Methodology

1 Subjects

Subjects for the study were first year students (N=60) who were enrolled in a required English course during the 1997 academic year at Kanagawa University Hiratsuka Campus. Based on their scores on the Freshman Placement Test developed by the university staff, these students were allocated to three different proficiency groups; advanced level (A), intermediate level (B), and lower proficiency level (C). For the 28 weeks of the academic year, these students were required to attend two different classes (90 minutes each) a week, one of which was the subject class. In general, students in Group A did not have much difficulty in reading and writing, but they had had little exposure to listening and speaking. Overall, students in Group C had serious problems understanding basic grammar and experienced difficulty in sentence-level reading comprehension. Most of Group C students had a sense of inferiority in learning of English. This sense of inferiority seemed to have developed through the experience of learning English in high school. The level of students in group B was between that of students in Groups A and C.

2 Instrument

A questionnaire consisting of two sections was designed by the researcher to collect information from these students. The first section asked the students to rate their progress in specific learning strategies and academic language skills, for example, skills for data collection, research methods, ability to write an outline, and ability to identify and solve a problem. Students were also asked to rate their progress in areas of English language proficiency such as vocabulary, grammatical knowledge, accurate reading, and listening comprehension. In addition, students were asked to evaluate the class.

In the second section, students were asked to write open-ended comments to three questions. The first question asked students to express the difficulty they had encountered at each stage of the program. The second question asked for their views on learning English. The third question asked for suggestions for the improvement of the course. All the questions were written in Japanese, and most of the students wrote the open-ended section in Japanese.

3 Class activities

Students attended a whole academic-year course consisting of two semesters. The focus of the content-based course was the second semester, in which students conducted a research project. Class activities in the first semester were designed to empower students to conduct a research project effectively in the second semester.

In the first semester, four skills and several learning strategies were specifically instructed to the students. Materials dealing with social and controversial issues were deliberately chosen to raise students' awareness

toward social issues.

After the introduction of the course, students were asked to prepare and deliver a self-introductory speech. For the purpose of this activity, students received instruction on the organization of a good speech and effective speech skills. The students' speech was videotaped and viewed by the students for further study. To develop the students' listening and speaking skills and to increase their vocabulary, consecutive interpreting exercises were used. At the same time, authentic listening materials were introduced, and students were encouraged to keep exercising at home throughout the year.

To develop the students' writing and reading skills, paragraph and essay organization was instructed, and many different types of reading materials were provided. All reading materials treated social and controversial issues such as euthanasia, environmental problems, and/or problems in education. Students were asked to write a paragraph (Group C) or an essay (Groups A and B) based on their own outlines. Students chose their topics but they were limited to social and controversial topics. After writing their paragraphs or essays, students gave an oral presentation based on what they had written. Again, these presentations were videotaped and viewed by the students.

In the second semester, students conducted research projects. At the end of the semester, they gave presentations, which were approximately 30 minutes long. Students were asked to choose one social, controversial topic, and were divided into seven to eight groups of four to five students according to their subject choices. Throughout the semester, students engaged in both group work and instructor-oriented activities. Instructor-oriented activities included video lessons of effective research presenta-

tions, introduction to the research method, introduction to a library and computer search, organization of research, useful expressions for a presentation, review of videos of the students' presentations, and evaluation. Students were encouraged to conduct a survey, interview professionals, and visit various organizations. In their presentations, students were asked to use audiovisual materials effectively.

Results

The first section of the questionnaire asked the students to rate the second semester course as well as their progress in English language proficiency and learning strategies on Likert-type 5-point scale, which ranges from *strongly disagree* (1 point) to *strongly agree* (5 points). Table 1 presents the results based on the students' mean scores.

Though the group means for the 24 areas evaluated fell in the middle of the range (scores of 2-4), a clear difference could be observed, especially between Groups A & B and Group C. The results show overall similarities between Group A and Group B. Group A shows relatively positive scores ($x > 3.70$) for nine items and relatively negative scores ($x < 3.20$) for two items. Group B shows positive scores for eight items and negative scores for two items. On the other hand, Group C shows positive scores for only three items and negative scores for 12 items.

The results of Group A and Group B show seven common areas which received positive ratings. The students stated that they had learned "various research methods," "information search," "techniques that allowed them to express their opinions," and "expressions necessary for a presentation." In addition, they felt that "the second semester course was

**TABLE 1 Students' Ranking of Content-Based Course
at Three Different English Proficiency Levels**

Item rated	Mean score					
	Group A (N=23)		Group B (N=26)		Group C (N=11)	
	M	SD	M	SD	M	SD
1. I understood various research methods.	3.83	0.76	3.88	0.89	3.73	0.75
2. I understood the way of information search.	3.70	0.80	3.88	0.89	3.81	0.83
3. I learned how to make a logical outline.	3.43	0.88	3.62	0.92	3.36	0.77
4. I was able to synthesize the information effectively.	3.35	0.81	3.65	0.92	2.55	0.66
5. I learned the way of problem finding and solving.	3.57	0.97	3.62	0.92	3.09	1.10
6. I was able to practice writing what I want to state.	3.83	0.87	3.92	0.92	3.63	1.07
7. I was able to practice speaking what I want to express.	3.30	0.86	3.58	0.84	3.18	0.94
8. I learned expressions to use for a presentation.	3.74	0.67	3.73	1.02	3.45	0.99
9. I was able to practice an effective speech.	3.52	0.77	3.70	0.95	3.27	1.14
10. I learned to cooperate with others to achieve a goal.	4.30	0.80	3.62	1.15	3.72	1.29
11. I learned how to make an effective presentation.	3.61	0.92	3.81	0.88	3.45	0.89
12. I learned to criticize others properly.	3.26	0.67	3.27	0.98	3.00	0.85
13. I got interest in international issues.	3.48	0.97	3.38	0.99	3.27	0.86
14. I got interest in social issues.	3.78	0.78	3.38	1.04	3.36	0.77
15. I acquired writing several paragraphs.	3.48	0.50	3.58	0.79	3.00	0.60
16. I increased vocabulary.	3.39	0.64	3.15	0.77	3.18	0.72
17. I acquired grammatical knowledge.	3.22	0.72	3.04	0.98	2.45	0.89
18. I was able to use grammatical knowledge.	3.30	0.69	3.46	0.97	2.72	1.05
19. I acquired the skill of reading precisely.	3.17	0.70	3.35	0.87	3.00	1.04
20. I acquired the strategies to pick up the useful information from many sources and understand them.	3.39	0.71	3.58	0.84	3.00	1.13
21. I acquired the skill of listening comprehension.	3.00	0.83	3.38	0.88	2.55	0.66
22. The second semester course was worth studying for me.	4.22	0.78	4.00	1.00	4.09	0.97
23. The second semester course was interesting to me.	4.13	0.80	3.85	1.10	3.09	0.72
24. I tried to study hard in the second semester course.	4.13	0.90	3.96	0.98	3.36	0.98

worth studying” and “interesting” and “had pushed them to study hard.”

Group A students strongly agreed that they had learned to cooperate with others to achieve a goal ($M=4.30$). They had also become interested in social issues. However, they did not agree that they had acquired skills for accurate reading and listening comprehension.

Group B students agreed that they had learned how to give an effective presentation, but they did not agree that they had acquired any grammatical knowledge or increased their vocabulary.

Group C students agreed that they had learned various research methods and the way to carry out information search. However, they disagreed on most other items. They strongly disagreed that they had learned to “synthesize information effectively,” “identify and solve a problem,” “criticize others properly,” “write several paragraphs,” “acquire grammatical knowledge,” “use grammatical knowledge,” “read accurately,” “select and understand useful information from many sources,” or “increase their listening comprehension.”

All groups strongly agreed that they had learned various research methods and how to carry out information search. Also, all of them strongly agreed that the second semester course was worth studying (Group A=4.22, Group B=4.00, Group C=4.09).

All groups generally felt that they had not acquired grammatical knowledge or skills for accurate reading or listening comprehension.

The largest deviation between Group C and the other two groups was elicited by the item “The second semester course was interesting to me.” Group A and B agreed, but Group C did not (Group A=4.13, Group B=3.85, Group C=3.09).

Discussion

The results show that all groups felt that they had learned research methods and how to carry out information search. However, only Groups A and B generally viewed the content-based course positively.

Group A and B students expressed similar views towards the content-based course. In the open-ended part of the questionnaire, both Group A and Group B students expressed that “It was good to research and present the project because I could actively participate in the class.” The development of students’ autonomy was a high priority in the class. Students voiced comments such as “I had to be responsible for my own learning, which was very good and appropriate at university level,” “It was a good experience for me to give a speech in English in front of others,” and “I became interested in international issues. I will keep learning with programs broadcast by CNN or NHK.” Other comments were: “I was able to learn how to think and write logically. This skill can also be applied when I use the Japanese language,” and “I was highly motivated by the research and presentation work. Though it was hard, I enjoyed it very much.” As for the class activities in the first semester, most of the Group A and Group B students expressed that they felt less motivated. Some students stated, “The class activities in the first semester were traditional and boring, though I knew the importance of learning the basics.”

Group A students appreciated and enjoyed group-work activities very much. Five students in Group A expressed: “It was a very good experience for me to study in a group. I had a sense of achievement when we

finished the project.” It was observed that most of Group A students smoothly embarked on group discussions from the beginning.

The results show that Group A students became interested in social issues. In open-ended items, many of them expressed the difficulty involved in writing about a difficult topic without using extremely difficult expressions. They also felt they needed more practice in reading and listening.

Group B students show overall similarities with Group A. The difference between Group A and Group B is that Group B students felt they needed more grammatical instruction. Many of them expressed that they wanted the instructor to show the vocabulary and grammar in a “ready to use” manner.

The results of Group C show a clear difference with Group A and Group B. Some of the Group C students appreciated and enjoyed the group work, but some did not at all. This was supported not only by the largest standard deviation ($SD=1.29$) in this item but also by the researcher’s direct observation of the group. The main reason for this is assumed to be the difficult cognitive nature of the course. Not only the students’ lower English proficiency but also their significant lack of learning strategies interfered with successful learning. During group work, students with limited learning strategies seemed to experience difficulty participating in the work. The lack of learning strategies was made clear by their low rates in categories such as “synthesize information effectively,” “identify and solve problems,” “criticize others properly,” and “select and understand useful information from many sources.” Another difference from Group A and Group B is that Group C students did not learn either language functions or learning strategies successfully.

This applies to all four skills and grammatical knowledge. Two of them expressed that they wanted to study more vocabulary and basic grammar. Most of them wanted to keep studying English, but what they wanted to learn was oral communication.

An open-ended section of the questionnaire asked the students to comment on the difficulty they had encountered in the five stages of the research project : plan, information search, outline, draft, and oral presentation. In the planning stage, all groups experienced difficulty finding how to begin. Some of them suggested that the instructor show an example of the research plan. Most of them had difficulty working on schedule. In the stage of information search, all groups expressed that they had difficulty selecting useful information from numerous sources. They also felt it was difficult to synthesize the selected information into meaningful content. This is not unique to Japanese university students. Horowitz (1986) in Snow and Brinton (1988) have reported that undergraduate students in the U.S. typically lack the ability to recognize relevant data, synthesize multiple sources, and connect the theory and data. It was suggested by Horowitz that university curriculum stress the recognition and reorganization of data to encourage students to practice “academic processing.” When writing their outlines, Group A students had difficulty following the outline format, which is a common student problem. Many students in Group B and C expressed that they did not quite understand how to make a meaningful outline. It was revealed that many of them still had extremely vague ideas about outlining. In the writing stage, Group A students felt it was difficult to express complicated content in simple language. They tried to avoid technical words as much as possible. Both Group B and Group C students felt that constructing sentences was very hard because

they had forgotten grammar and vocabulary. Many of them thought they wrote grammatically wrong sentences. In the presentation stage, Group A students had difficulty speaking and maintaining a reasonable amount of eye contact. Both Group B and Group C students had difficulty memorizing the draft they had written.

Conclusion

The results show that content-based instruction is effective for advanced and intermediate level students but not for students with lower proficiency. In order to improve the course in the future, the following three areas should be addressed: provide clear guidance for research planning, give a step-by-step introduction to outlining, and give detailed feedback during the actual writing stage. During research planning, more information on research methods and planning should be given. Some self-monitoring activities such as keeping a study log to check the advancement of the research should also be introduced. Outlining proved to be a more difficult task than expected. A variety of examples of outlines should be included at this stage, and step-by-step instruction of how to write an outline is necessary. Students in general but especially intermediate level ones require more assistance when constructing sentences. At this stage, the systematic instruction of grammar and usage proves to be effective. Leaver and Stryker (1989) stated that most content-based instruction should treat grammar as an integral part of the course work. They considered grammatical accuracy an important component of language proficiency which must be a major part of the “hidden agenda” of any content-based curriculum. In the research and presenta-

tion course, most students realized that they lacked grammatical knowledge when they encountered difficulty expressing their thoughts accurately. Showing many sentence examples in the context of their research would be practical and useful for them.

For further improvement of the first semester part of the course, various different types of activities should be introduced. It is sometimes difficult to teach fundamentals to students in creative manner. However, as Moeller (1994) suggested, the instructor should try to include a variety of intellectually challenging activities and instructional approaches such as peer-evaluation, simulations, discussions, and demonstrations.

Content-based instruction tends to be recognized as the teaching method best suited for advanced level students. However, as this study shows, it is also effective for students at the intermediate level. More detailed planning of the syllabus and feedback would be advantageous for students at this level.

References

- Brinton, D. M., Snow, M. A. & Wesche, M. B. (1989). *Content-based second language instruction*. New York : Newbury House.
- Brown, H. D. (1987). *Principles of language learning and teaching* (2nd ed.). New Jersey : Prentice-Hall.
- Chamot, A. U. & O'Malley, J. M. (1994). *The CALLA handbook : Implementing the cognitive academic language learning approach*. Massachusetts : Addison-Wesley.
- Horowitz, D. (1986). What professors actually require : Academic tasks for the ESL classroom. *TESOL Quarterly*, 20, 445-462.
- Leaver, B. L. & Stryker, S. B. (1989). Content-based instruction for foreign

- language classrooms. *Foreign Language Annals*, 22(3), 269-275.
- Moeller, A. J. (1994). Content-based foreign language instruction in the middle school : An experiential learning approach. *Foreign Language Annals*, 27(4), 535-544.
- Okazaki, M. (1997). Theoretical basis of content-based instruction and its implication to EFL for Japanese Universities. *Kanagawa University Kokusai Keiei Ronshu*, 14, 159-176.
- Snow, M. A. & Brinton, D. M. (1988). Content-based language instruction : Investigating the effectiveness of the Adjunct Model. *TESOL Quarterly*, 22, 553-574.