

Content-Based Instruction: An examination of two model classes

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Abstract

Content-Based Instruction (CBI) is a powerful tool for improving student's communicative competencies. It started in the pioneering Immersion programs begun in Canada in the 1960s, and has evolved into a popular alternative to textbook-based, teacher-centered communicative language learning, especially in the field of ESP (English for Special Purposes). After a detailed introduction to the theory and practice of CBI, we examine two separate styles for conducting CBI classes. The first style to be discussed is a Practical English course designed around the topic of Global Climate Change. Secondly, a conversation class for science and technology students based on DVDs of classic science fiction movies is presented.

Introduction

What would you do if your students always translate an English sentence into Japanese word by word? They can understand each word but can't understand the meaning of the whole sentence. Their high school teachers always asked them to translate. So they believe that they must always translate. What would you do if you were in this situation? The main goal of this paper is

to show readers the process we went through to create CBI courses. First, the CBI models and their theoretical backgrounds will be briefly traced. Then we will describe our CBI courses.

Background

For the past few decades, researchers and teachers have provided us with a variety of resources for changing our classrooms. One of the new instruction models is Content-based Communicative Instruction (CBI). CBI is a powerful tool for improving our students' communicative competencies. CBI makes our students' interactions meaningful, and it encourages the use of the target language. CBI was first started as an immersion program in Canada in the 1960's. Then it became very popular in the ESL instructions in the United States. Now it is gaining popularity in Japan.

CBI models can be basically categorized into four types. The first model is the immersion model in which teachers instruct everything in the target language. Everything is carried out in the framework of the school curriculum. The second, the sheltered course in which teachers teach the subject using the target language and content that is specially designed for the learners, the third, the adjunct model in which language teacher

teaches the language class and the subject teacher teaches the content class, and they coordinate the activities together, and the fourth, the theme-based course in which language teachers teach the language using abundant content materials. There are several different theoretical backgrounds for using content-based instruction in our classrooms.

Snow (2001) concisely shows us the theoretical background of CBI: (1) Krashen's input hypothesis (1984), (2) Swain's output hypothesis (1993), (3) Lantoff and Appel's explanation of Vigotsky's ZPD and inner speech (1994), and (4) Grabe and Stoller's explanation of cognitive psychology (1997).

Based upon their research of CBI, Grabe and Stoller (1997) suggest seven strong reasons for using content-based materials. They wrote that CBI provides (1) plenty of meaningful activities, (2) contextualized learning, (3) chances to use knowledge, (4) involvement in challenging activities, (5) cooperative learning, (6) flexibility, and (7) student-centered classroom. First, Grabe and Stoller point out that students are exposed to a considerable amount of language while learning content. "The language learning activities are not artificial or meaningless exercises." Second, students have many opportunities to learn the language in a contextualized learning environment. "CBI supports contextualized learning." Third, students can use the knowledge they learn in the class. "Students have increased opportunities to use the content knowledge and expertise that they bring to class." Fourth, students will become more motivated when they experience challenging activities and overcome their difficulties. "Students are involved in demanding activities that leads to their intrinsic motivation." Fifth, "CBI supports such approaches as cooperative learning, experiential learning, and project-based learning." It

is also suitable for teaching strategy. Sixth, "CBI allows greater flexibility and adaptability to be built into the curriculum and activity sequences." And lastly, "CBI lends itself to student-centered classroom activities." Students have chances of choices and preferences in content and activities.

Many foreign language teachers today think that they are not a deliverer of linguistic knowledge but a facilitator of communicative competence. The most recent definition of communicative competence is given by Muranoi (2006). He shows us that communicative competence includes (1) language competence, (2) cognitive ability, (3) real-world knowledge, (4) attitudes/values/personality, and (5) strategic competence.

According to Stryker and Leaver (1997), content-based teachers can gain access to students' needs and motivation, make students autonomous, and help students understand the learning process. Thus, content-based teachers can facilitate students' communicative competence.

Brinton, Snow, & Wesche (2003) present several other reasons for implementing a content-based curriculum in an ESL course in an American university where the students are adult ESL learners:

1. Four skills can be taught through one topic.
2. The topics stimulate the interest of various types of students.
3. The class introduces learners to the issues that are directly related with their lives in the U.S.

CBI can thus stimulate the interest of the students by letting them choose themes, texts, and activities appropriate for them.

Researchers have thus identified the theoretical reasons of using content-based instruction. CBI can provide meaningful interactions in our classrooms and fosters communicative competence. In the content-

based classrooms, teachers help students understand the learning process. Meanwhile, students experience the learning process and become more autonomous in content-based classrooms. Once students become autonomous learners, their communicative competence starts developing synergistically.

The next topic is about our real classrooms. Almost a decade ago, Akita Prefectural University was started as a science and technology university. Five years ago, we did a systematic survey and conducted a needs analysis of our English education. The survey revealed the necessity for instigating an English for Specific Purposes or ESP class. We were encouraged to change our teaching syllabus into more content-focused style.

Practical English Class

We started our Practical English class as a test preparation course at first. I used the *Eiken Test Grade 2: Official Past Exam Paper Book with Advices* 『英検 2 級全問題集』. I asked my students to answer each question orally. And I gave an answer to each question only once in a class hour, so students had to review the questions by themselves for the final exam. The sentence arrangement was arbitrary in the book, so each sentence did not provide contextualized information. Without context, it was difficult to keep the information in the memory. The students did not show much improvement. The class was fairly monotonous at this stage, so I felt a strong need to change that.

Therefore, the second stage of my Practical English class became activity-based. I started using small communicative activities and gradually reduced the use of test preparation book. The activities brought the students into the part of learning process. Students seemed to show more interest in the

materials. However, my students still had no chance of using the language they learned in their subsequent classes because the materials were not contextualized yet. Following are the activities in the second stage.

1. Board games (We played a *sugoroku* game that is a simple board game with markers moving according to the numbers that appear on dice. As the marker touches down, students must talk about the topic that is written there. The main purpose is to increase fluency.)
2. Concentration game for learning vocabulary
3. Group discussion
4. Making posters using VOA news
5. Listening to English songs
6. Watching DVDs

Students liked the activities, but one of them told me that the class was only very loosely connected. He could not find a relationship between the fun activities and the ultimate goal of the class. I had to find a way to tie everything closer together.

The third stage and most recent stage of my Practical English class became Topic-based. I chose global warming as the central theme and arranged all the activities under that theme. The following are the materials and activities I used:

1. Al Gore's *An Inconvenient Truth* (DVD)
2. The film script of *An Inconvenient Truth*
3. Interviewing college staff
4. Visiting library and using the Internet (Students gathered information for their presentation on CO2 reduction.)
5. Writing speech drafts and viewgraphs
6. Making a presentation
7. Peer evaluation

The students could recycle the language throughout this stage. First, I told them to choose a topic that is directly related to

global warming on a small scale. One such topic was, for example, to find the total amount of electricity used in our university. Then I told them to interview people to obtain information, analyze the obtained facts, put the facts together, and make a presentation.

I think that the use of higher cognitive abilities for this process is very important because it engages the students in creating a plan, then carrying it out, and finally in reflecting on their own project. The cyclic process from planning to reflecting provides a good opportunity for the students to experience a pattern of autonomous learning.

Ultimately, my students generated many creative ideas for reducing CO₂. Their presentation topics were as follows: (1) about using local produce in the cafeteria, (2) switching to green energy, (3) ways of energy saving, (4) smart driving, (5) eco-house, (6) planting trees, and so on. In their reflection journal, almost all of the students seriously wrote about the importance of the global warming issue. Although they expressed their anxiety before making their presentation, all the students did very well in their final performance.

In conclusion, my students experienced the whole process from generating ideas to making presentations in the topic-based class. The activities involved cooperative learning, peer teaching, and peer evaluation. In this way, the students successfully learned the content of global warming, and at the same time, they actively learned the language in the meaningful context.

Communicative English Conversation Class

I wanted to create a more realistic conversation class, rather than employ the traditional boring textbooks that use a mishmash of artificial conversations based on the

language of stereotyped situations with no continuity or context. This part of the paper will detail the reasons for selecting the particular movies I employ as well as the giving details on classroom management and testing.

Background

The students at Akita Prefectural University all major in various fields of high technology, including such science-fiction-friendly fields as: Machine Intelligence, Robotics, Electrical Engineering, and Biotechnology. The semester is officially fifteen weeks long, and the thirty classes are ninety minutes each, meeting twice a week. In the real world, this usually works out to twenty-eight classes. This lends itself perfectly for using three classic science fiction movies, each divided into eight sections, plus three tests, and an introductory class plus a wrap-up session. The goal of the class was not to merely promote conversational fluency, but to also encourage two additional skills useful in pursuing a career in science: critical thinking and creativity.

There were several reasons for choosing the particular movies that I did. First, being a life-long fan of science fiction, I chose recognized classics in the field both for their artistic merit and for the fact that I would not tire from repeated viewings. I knew that the students would become more engaged in the stories if they could sense the teacher's enthusiasm for the subjects. By choosing films whose storylines included robots, genetic engineering, Artificial Intelligence, and virtual reality I could also introduce scientific vocabulary and concepts that would prove useful in their other classes. The three movies all included multiple, overlapping themes that tied them together, as well as providing language with little topical slang, jargon, or

profanity. The language is all presented in a realistic, visually arresting context, and the popularity of the movies provided a much higher motivation than the traditional text-based conversation class.

Materials

The DVDs

I show three movies in my class. First I show *Star Wars, Episode IV, A New Hope*; then I show *Blade Runner - The Final Cut*; and last I show *The Matrix*. The origins of *Star Wars* can be directly traced back to the Flash Gordon cliff-hanging serials of the 1930s, the classic 'Space Operas' of the pulp fiction era of science fiction, as well as the samurai movies of Akira Kurosawa, particularly *The Hidden Fortress* (隠し砦の三悪人, Kakushi toride no san akunin). The other major aspect of *Star Wars* that I point out to the students is that the story is an example of what the comparative mythologist Joseph Campbell (1949) calls 'The Hero's Journey'. Luke's Hero's Journey not only conforms to the mythic archetype described by Professor Campbell in his classic "The Hero With A Thousand Faces", but also to Neo's transformation in *The Matrix*. In order to illustrate some of these antecedents during my introductory class I show Episode Five from *Flash Gordon Conquers the Universe* (1940), starring Buster Crabbe.

Next I show the latest iteration of what many consider to be the best science fiction movie ever made - Ridley Scott's *Blade Runner - the Final Cut*. This movie is a futuristic film noir adaptation of Phillip K. Dick's science fiction masterpiece *Do Androids Dream of Electric Sheep* (1968). The major theme explored with this movie is the nature of being human, along with the sub-theme of the human/replicant love story. As a lead-in to *The Matrix* I also

mention how the movie was an inspiration for the Cyberpunk genre of modern science fiction literature.

Finally, I finish up the class by showing *The Matrix*, though the most recent movie of the three, yet still ranking in lists of the top ten SF movies ever made. Many of the ideas included in this movie are lifted directly from cyberpunk science fiction, most notably William Gibson's seminal science fiction masterpiece, *Neuromancer* (1984). The overall theme of this movie concerns the nature of reality and illusion, with the secondary strand of humans versus intelligent machines weaving its way through all three movies. I provide a succinct overview of Campbell's Hero's Journey archetype mapped onto the characters and plot of both *Star Wars* and *The Matrix* so as to raise the student's awareness of the similarities in structure between the two seemingly disparate movies. For my final class, after the last test, I show a DVD called *Animatrix* - a group of nine Matrix-related anime written by the creators of *The Matrix* and each rendered in a different style. This provides more background and context, as well as being a relaxing way to wind up the final conversation class.

The Texts

The Japanese company, Screenplay Publishing Company, Ltd., publishes the screenplays for a wide variety of films. I use these commercial versions as the text for both *Star Wars* and *The Matrix*. Not only does the text provide the English transcript of the film, but also the facing page gives the Japanese translation along with vocabulary notes. Due to copyright restrictions, they are unable to publish a copy of the *Blade Runner* screenplay. Luckily there is something called the Internet, where I was able to locate a fan produced copy of the transcript of the

original film. I used this as the basis for my text. I updated this to conform to the *Final Cut* version and adapted the transitional explanations of the action for ESL students. This year one of my students located a Japanese translation of the script and I plan to incorporate it into my next version.

Handouts

In this class I use a set of three related handouts for every section of the movie. First, I give out a set of ten comprehension questions at the end of every class as homework. The students have to read and understand the scenes that they are going to view before they actually see them. On the reverse of that handout I include the discussion questions that will be dealt with at the end of the next class. That way they can preview the discussions and think about what they will say. The third handout is a four-question film quiz that I give to the students before they view the film, and they answer the questions as they watch. The film quiz has a place for the student's name and number, and I collect it after going over the answers in class. The questions all relate to things that they view in the film, but are not mentioned in the text. The only purpose of the film quiz is to make sure that the students stay awake and pay attention during the presentation. They carry no weight towards the final grades.

Three Modalities of Classroom Organization

This is a conversation class, but not in the traditional sense. First the students read and understand the dialogue. They do this through the homework, and the first third of the class is devoted to going over the answers and explaining various points of interest, culture or philosophy. Next they view the film and listen to the conversations in the

proper context. I show each 12-15 minute section twice, once with English subtitles and the second time with Japanese subtitles. Finally, the students have conversations based on the discussion questions provided on the back of the homework. By having a week to think about their answers the students are better able to discuss the themes of the movies and how they relate to their everyday lives.

Testing

Thanks to a recommendation from Dr. Charles Adamson, I now use Blooms Taxonomy as the basis for creating most of my tests. In 1956, Dr. Benjamin Bloom headed a group of educational psychologists in developing a classification system for the domains of intellectual behavior important in learning. These are the *Cognitive*, the *Affective* and the *Psychomotor*. He identified six levels within the cognitive realm, from simple 'Knowledge', i.e. rote memorization, as the lowest level, through increasingly more complex and abstract mental levels, to the highest order referred to as Evaluation. For the purposed of testing, I only focus on the lowest three levels of the Cognitive realm.

The first part of my test, the Knowledge test, is based on the reading comprehension questions given to the students as homework. Next, the students have the Comprehension Test, which has the students applying their understanding to recognize such things as overall themes, and examples of key concepts. Finally there is the Application Test, which tests their creative and predictive powers. The students must write a short essay predicting what would have happened if the plot of the movie had followed an alternative path. One of the keys to 'freeing their minds' is to not require spelling or grammatical accuracy, and thus the

students are able to devote their cognitive abilities to critical thinking and originality.

The final component is to test their actual conversational ability. During the written portion of the test I conduct conversation tests on pairs of students. I use one of the discussion questions from the class and have them talk to each other. I give each pair of students the same grade, an average based on their ability to discuss the concepts, add additional information and defend their own viewpoints. This adds peer pressure to the mix and increases their motivation to excel.

Conclusion

A CBI class based on the use of classic science fiction movies is a good alternative to the boring, contextless conversation classes normally being taught to science and technology students today. The key to developing a good CBI/DVD class is to first conduct a needs analysis of the students in order to ensure the selection of an appropriate film. It is also important to balance the different modalities used to teach conversation in the classroom. Finally, I proposed using Bloom's taxonomy (1956) as the basis for creating tests that cover higher-level domains of cognitive activity.

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