The Effectiveness of Content-Based Instruction in English Language Teaching

Evangelin Arulselvi

Abstract

This study investigated the effectiveness of the Content-based instruction (CBI) method over the conventional method in learning Optional 1 English among College of Education students in the Salem District of the Tamil Nadu state in southern India. A randomized pretest, post-test, control group and experimental group design were employed. Students from the university formed both the control and experimental groups. Each group consisted of 30 learners. The t-test analysis revealed that for teaching English to these students who are non-native English speakers, CBI was more effective than the conventional method and the CBI students developed their language skills as well as gaining access to new concepts through meaningful content.

Keywords: Language learning strategies, training procedures, content integration, dictogloss and graphic organizers

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Introduction

English language today is a powerful unifying factor in our national and international life. It is through English that we are connected with information technology and electronic time and space. There are many ways and approaches introduced in this century to teach the English language to non-native English language learners. These approaches are providing learners with opportunities to practice English for communicative purposes. Content based instruction (CBI) is one among the communicative approaches gaining favor in recent times. CBI is becoming increasingly popular in general education as well as in second and foreign language teaching.

CBI is an approach to language teaching that focuses not on the language itself, but rather on what is being taught through the language; that is, the language becomes the medium through which something new is learned. In the CBI approach, the student learns the target language by using it to learn new content. CBI has characteristics which make it particularly effective in language instruction. According to Stoller (1997), one of its most important benefits is that it lends itself to the natural teaching of the four language skills. For example, within CBI students are required to read authentic reading materials, to interpret and evaluate the information contained in them, and to cooperate so that they can respond either orally or in writing.

As Optional I and II English courses of the Bachelor degree of Education (B.Ed) program at the College of Education in the Salem District of Tamil Nadu state in southern India aim to provide in depth knowledge in the area of language teaching, the researcher has interest to identify a suitable method of instruction. The researcher has identified the need for a professional development activity to support the student teachers' understanding and to relate to each other during intellectual experiences. She conducted research in the strategy of teaching learning process with the goal of having the desired impact on teacher understanding.

There are many things that can be considered 'content'; what is important is that what is being taught or discussed through the language and not be language instruction related. Aspects of the curriculum, discussions about current events and world cultures or even general topics of interest are all valid content options.

Instructional methods are used by teachers to create learning environments and to specify the nature of the activity in which the teacher and learner will be involved during the lesson and the researcher has selected CBI as a teaching strategy for this purpose. CBI is not exclusively a language program, but instead it integrates the learning of language with the learning of some content. The content can be any academic subject matter. It has been observed that academic subjects provide natural content for language study (Brinton, Snow & Wesche, 2003). Keeping this view in mind, the researcher has selected Optional 1 English course as a source of content for conducting this research.

Content-based instruction has been defined as "the teaching of content or information in the language being learned with little or no direct or explicit effort to teach the language itself separately from the content being taught" (as cited in Richards & Rodgers, 2001, p. 204). This teaching approach is considered by many researchers to be an effective and realistic teaching method in terms of combining language and content learning. According to Crandall (1999), CBI can be used in various ways depending on the skills being taught and includes not only traditional teaching methods such as grammar-based instruction or vocabulary development, but also contemporary approaches such as communicative language teaching and humanistic methods.

Krashen (1982) emphasized ways of decreasing learner anxiety, such as providing interesting texts as well as meaningful activities, which are comprehensible to learners. This

supports a CBI approach which also promotes: learning a language through academic content, engaging in activities, developing proficiency in academic discourse, fostering the development of effective learning strategies (Crandall, 1999). Thus, this methodology puts emphasis on "learning about something rather than learning about language" (p. 604). In Content-based instruction, language teaching focuses on how information and meaning from meaningful content are utilized in discourse or texts, not in single sentences. Next, the skills of the target language are not separate from each other, and they together are involved in all activities. For example, students in CBI are supposed to "read and take notes, listen and write a summary, or respond orally to things they have read or written" (p. 208).

Review of Related Literature

Various studies have been conducted surrounding the effectiveness of CBI. This review will present key studies and their outcomes.

Yoon (Christina) Heo (2005) conducted research on Content-based instruction (CBI). It was found to be an effective approach to teach English as a second language because with CBI, students can develop their language skills as well as gain access to new concepts through meaningful content. Her research paper has reviewed general information about the features of CBI, including its theoretical foundations and models. The paper also covered several issues to be considered in the application of CBI such as assessment of language and content, teacher education, and the use of CBI in the EFL classroom. The relationship between CBI and skill based instruction, particularly in the teaching of writing, has also been discussed. Finally, the researcher suggested that CBI can fit in well with broader principles of language teaching and learning in both ESL and EFL situations.

Silvia Pessoa and Heather Hendry (2007) conducted research on testing the effects of CBI in the foreign language classrooms. They researched how this type of instruction actually is appropriated, understood, and carried out in practice by foreign language teachers. This study examined the role of two sixth grade Spanish teachers' discursive practices in Content-based instruction, the goals of instruction, and the students' proficiency. Through classroom observations, discourse analysis, teacher interviews, and student writing assessments, this study shows the significance of teacher-talk in engaging students in learning both language and content, an overarching goal of CBI.

Stuart D. Warrington (2008) conducted research focusing on the concerns with CBI in Asian EFL contexts. The findings state that a considerable amount of interest was shown in CBI over the past decade and, inevitably, CBI has found its way into Asian EFL contexts. This is largely due in part to its success in ESL environments and its global attraction as a mode of language education for the world.

Fragoulis Iosif (2011) conducted research regarding CBI in the teaching of English as a foreign language. This article aimed to link theory to practice, and to help English teachers maximize the full potential of using CBI in English teaching. The findings of this article reported benefits to many English teachers for using CBI.

Mulamba Patrick Omoto (2013) conducted research on CBI to investigate the elements of CBI and its process in the teaching and learning of English in primary schools. The objectives of the study included: to find out how the CBI approach was used in the teaching of English in primary schools of a particular district, to examine the nature and relevance of material used to facilitate the CBI approach in English language teaching, to determine the perception of teachers of English regarding the use of CBI in the teaching and learning of English, to determine the

perception of learners who experience CBI in the learning of English and to investigate the challenges the teachers of English face in the attempt to use CBI. This particular study provided insight for curriculum developers, policy makers, language educators and teachers to understand and use CBI.

Neil Matthew Addison and Richard John Walker (2000) examined Japanese University English students` attitudes towards studying a content based media course that incorporated a blended approach towards analysis and discussion of critical subject matter. They followed a selected examination of previous academic work pursued in this field, a diagnostic analysis of students' schematic problems in approaching critical thinking in English, and a description of the pedagogic ambitions and rationale of this course. The effectiveness of the research was then assessed with reference to statistics taken from student response questionnaire data. Recommendations made in light of this data suggest that future research could focus upon a consideration of ways to scaffold and build upon existing learner methods, and on the construction of more effective course materials to compliment the teaching of a critical content based pedagogy.

Integrating CBI in the Language Classroom

Stoller (2002) lists eight practices that allow for natural content integration:

1. Extended input, meaningful output, and feedback on language and grasp of content.

2. Information gathering, processing, and reporting.

3. Integrated skills (using reading, writing, speaking and listening in natural classroom activities).

4. Task-based activities and project work, enhanced by cooperative learning principles.

5. Strategy training (to produce more metacognitively aware strategic learners).

6. Visual support (ie. Images, graphic organizers, language ladders etc.).

7. Contextualized grammar instruction.

8. Culminating synthesis activities (knowledge is displayed in writing and orally).

The Role of Teachers in CBI

The teachers' role influences and directs the learners' activities in relation to the content. According to Stryker and Leaver (1993), teachers play the following role during CBI lessons:

(1) They must be knowledgeable in the subject matter and able to elicit that knowledge from their learners.

(2) Teachers are responsible for selecting and adapting authentic materials for use in class.

(3) Teachers must create truly learner-centered classroom.

(4) Teachers must keep context and comprehensibility foremost in their planning and presentation.

(5) Teachers must contextualize their lessons by using content as their point of departure. Teachers must help learners to understand authentic texts. Teachers make meaning clear through the use of visuals, repeating and by giving a lot of examples, and building on students' previous experiences. Teachers also design activities that address both language and content and the discourse organization of the content, with specific language activities highlighting how language is used in a particular subject. Students are actively involved in learning language content, often through interaction with other students. Thinking skills are promoted to undertake academic tasks. Graphic organizers are one tool used to assist this process.

The Role of Materials in Content-Based Instruction

Materials are very important during the instructional process of English language. They play an essential role in the development and practice of CBI. The material must bear certain

characteristics. The characteristics are as listed below with reference to Stryker and Leaver (1993):

(1) Materials must contain the subject matter of the content course.

(2) Materials must be authentic – like the ones used in native language instruction.

(3) Examples must be drawn from reality and real life experience and contemporary issues from newspapers, magazines, radio and TV.

(4) Material must bear linguistic simplification to adopt texts and promote comprehensibility.

Developing a CBI Approach

During the administration of CBI, the instructor divided the class into small groups and assign each group small research tasks and a source of information to help them fulfill the task. Then once they completed their research they formed new groups with students that used other information sources and shared and compared their information. There should then be some product as the end result of this sharing of the information which could take the form of a group report or representation of some kind.

The selected portion of the content is taught to the group using the following techniques of CBI.

1. Dictogloss Technique

Dictogloss is a classroom activity where learners are required to reconstruct a short text by listening and noting down key words, which are then used as a base for reconstruction. In a dictogloss, (Wajnryb, 1990) students listen twice to a short passage on appropriate content. The first time through, students listen for the main idea, and then the second time they listen for details. Next, students write down what they have remembered from the reading. Students are encouraged to take notes while listening and they reformulate their notes. Students get practice in note taking in this way.

2. Graphic Organizers

Graphic Organizers are visual displays that help students to organize and remember new information. They involve drawing or writing down ideas and making connections. They combine words and phrases, symbols and arrows to map knowledge. They include diagrams, tables, columns and webs. Through the use of graphic organizers, students can understand text organization, which helps them learn to read academic texts and to complete academic tasks.

3. Process Writing

In process writing, students brainstorm ideas about a topic and begin writing. Then they have repeated conferences with the teacher and other students during which they receive feedback on their writing up to the point, and then they make revisions based on the feedback they receive and carry on writing. In this way, students learn to view their writing as someone else's reading and to improve both the expression of meaning and the form of their writing as they draft and redraft. Process writing shifts the emphasis in teaching writing from evaluation to revision.

Objectives of the Study

The major objective of the study is to find out whether CBI method is more effective than the traditional approach for College of Education students in the Salem District of the Tamil Nadu state in southern India.

Hypotheses

I. There exists no significant difference between the pre and post mean scores of the experimental group.

II. Control and Experimental groups do not differ in their academic achievement scores.

Methodology

In the present study, the non-randomized control group pretest, post-test design was adopted. The groups were formed according to the requirements of the CBI method.

Sample Selection

In the present study, the experimental group and the control group were selected. The two groups were selected from the College of Education in the Salem District. Bachelor of Education students were considered for this purpose. Although the two groups were equal in terms of achievement scores, the subjects in each group were not equal and they varied in terms of their academic abilities. The composition of the Content-based instruction teams were made on the basis of the achievement scores of the learners. The subjects of the two groups were selected and the application of randomness led to the classification of the control and experimental groups.

Selection of the Experimental Group

The experimental group was formed on the basis of the academic achievement scores of the students. Thirty learners were grouped into five teams with six members in each team based on the scores of the first term examination of the English language. The first five highest scorers formed the first members of the five teams and the remaining scorers were distributed to each team as per the procedure of distribution. This sort of distribution of the subjects would enable achieving considerable equality among the teams in each group, but at the same time, heterogeneity of learner ability within a team was maintained as per the requirement of CBI.

Selection of the Control Group

The control group consisted of 30 learners studying in the same class of the same college. The group was exposed to the traditional method instruction and no novel treatment was given to this group.

Research Tools

The investigator's self-made achievement tests were used for the pre-tests and post-tests of both the groups. The same question paper was used for both the groups to evaluate pupils' skills in Optional I English covering selected topics of the content. At the beginning of the test, the instructions for answering were given and the subjects were asked to write the answer. The time allotted for answering was one hour. Both the groups were administered a pretest in which the previous knowledge was assessed. Contents of units 5 and 6 in Optional I English were selected for the administration of the pretest. In order to increase the reliability and validity of the post-test performance and to eliminate the testing effect of the pretest, two other achievement tests were constructed. These tests were a slight modification of the Pretest. The same type of questions and same number of questions were used for these two tests. The procedures adopted in developing the pretest tool were employed while constructing these tools also. Other important contents of unit 5 and 6 were selected for administering the other two tests.

Test Validity

The content of both the tests were validated by a team of English language specialists. The team validated the content and instructions of the test, the relevance of the questions to the content, its suitability of attaining the goals, the number and arrangement of questions and time allotted. The remarks and suggestions of the team were taken into consideration and the researcher made the necessary modification before its application.

Test Reliability

A pilot group of 30 students was randomly selected from the population of the study who were excluded from the sample. Test-retest method was used to check the reliability. First, a test was administered to them and it was repeated on the same group after two weeks. The reliability

correlation coefficient of the tests results were calculated using the Pearson correlation method. The obtained value of the Pretest was 0.84 which was an indication of its reliability. The obtained values of the Post tests were 0.77 and 0.79 respectively.

Test Administration Procedure

Both the experimental group and the control group were administered a pretest in which the previous knowledge of the students were assessed. Units 5 and 6 in Optional I English were the units selected for the administration of the pretest. Two other achievement Posttests were also constructed. These tests were a slight modification of the Pretest. The same type of questions and same number of questions were used for these two tests. The procedures adopted in developing the pretest tool were employed while constructing these tests. Other important contents of the same units were selected for administering the other two tests.

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Results and Discussion

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The results of the study are presented in Tables 1- 6 with interpretation. The pre-test was administered to both the control and the experimental groups. Both the groups did not differ in their pre-test mean achievement scores as testified by the t-value of 0.19 which is not significant at the 0.05 level. Note that N represents number, M represents mean, SD represents standards deviation, and t represents the t-score.

Table 1
Pretest – Comparison between Control and Experimental Groups

Group	N	M	SD	t
Control	30	56.4	8.5	0.19
Experimental	30	56.8	7.2	

Table 2

Comparison of the Pretest and Post-test I of the Experimental Group

Group	N	M	SD	t
Pretest	30	56.8	7.2	7.13
Post-test I	30	71	8.2	

Table 3

Comparison of the Pretest and Post-test II of the Experimental Group

Group	N	M	SD	t
Pretest	30	56.8	7.2	8.7
Post-Test II	30	73	7.2	

Table 4

Comparison of the Post-test 1 and Post-test II of the Experimental Group

Group	N	M	SD	t
Post-Test I	30	71	8.2	1.0
Post-test II	30	73	7.2	

Table 5

Post -test 1 – Comparison between Control and Experimental Group

Group	N	M	SD	t
Control	30	52.5	9.5	8.1
Experimental	30	71	8.2	

Table 6

Post-test II – Comparison between Control and Experimental Group

Group	N	M	SD	t
Control	30	57.2	7.2	8.5
Experimental	30	73	7.2	

The overall conclusion is that the homogeneity of the two groups was maintained during the pre-test period. This proves the true composition of the control and experimental group. Achievement scores of the pretest and post-test I of the experimental group were compared. The experimental group showed a significant difference between its pre- test and post-test -1 mean achievement scores(t = 7.13) The performance of the experimental group was found better in the post-test -1 when compared with its pre-test performance. This reveals the effectiveness of Content-based instruction.

Achievement scores of the Pretest and Post-test II of the experimental group were compared and there existed significant difference between these two scores as demonstrated by the t-value 8.7 which is significant at 0.05 level of significance. The group showed better

performance in Post-test II than in its Pretest performance. This evidenced the effectiveness of Content-based instructional approach in enhancing the academic achievement of the learners.

Achievement scores of Post-test 1 and Post-test II of the experimental group were compared and there existed no significant difference between these two scores as demonstrated by the t value 1.0 which is not significant at 0.05 level of significance. It is observed that the academic performance of the experimental group in Post-test I and Post-test II was equally better and the experimental group was slightly better in Post-test II when compared with post-test1 performance.

Achievement scores of the Post-test I of the control and experimental groups were compared and there existed significant difference between these two scores by the t-value 8.1 which is significant at 0.05 level. From the table it is inferred that the experimental group excelled more than the control group in academic performance. This indicates the effectiveness of the Content-based instructional approach over the traditional methods of Instruction.

Achievement scores of the Post-test II of the control and experimental groups were compared and there existed significant difference between these two scores by the t-value 8.5 which is significant at 0.05 level. From the table it is inferred that the experimental group excels beyond the control group in academic performance. This indicates the effectiveness of the Content-based instructional approach over the traditional methods of instruction.

The results of the comparisons clearly demonstrate that both hypotheses are rejected.

Findings of the Study

The results of this small piece of research showed that this Content-based instruction course was successful and the present study clearly reveals the effectiveness of the CBI method over the conventional method of instruction. It is found that CBI is more effective than the

traditional approach in enhancing the academic achievement of the learners. The result indicated that CBI method can be used successfully for students of diverse abilities and it can be easily used as a modification to instruction with no extra time or effort required of the teacher. One lesson plan using Content-based instruction method has built-in peer tutoring and support within the heterogeneous class groupings, which eliminates the requirement for several different plans to meet the needs of all students.

Based on the findings and conclusion discussed, the researcher suggests the following implications. CBI can be an effective way for students to learn language in the language class, using themes that students find of interest and such themes provide sustained motivation beyond intermediate levels of proficiency and prepare students, if they choose, for the transition to content area classes in school, college or university. CBI fits in well with broader principles of language teaching and learning, and it can be applied in various situations. It could be used effectively in ESL as well as EFL classrooms. It can make learning a language more interesting and motivating. Students can use the language to fulfill a real purpose, which can make students both more independent and confident. Teachers should encourage Content-based instruction method where students interact with each other to acquire and practice the elements of a subject matter and to meet common learning goals. The Content-based instruction method helps students to carryout active learning activities which help them to develop their potential. High-priority topics can be given to the students with a focus upon academic development through the teaching of content. Explicit instruction in learning strategies can be given to the students that help foster a better understanding of content. Teachers should be in-serviced on the technique of integration to reinforce its appropriate use and practice.

References

Alan, B. & Stoller, F. (2005). Maximizing the benefits of project work in foreign language

    classrooms. *English Teaching Forum, 43* (4), 10-21.

Brinton, D., Snow A., and Wesche, M. (2003) *Content based second language instruction*.

    Michigan Classics Edition. Ann Arbor, M.I: University of Michigan Press.

Brinton, D., Snow A., and Wesche, M. (1989). *Content-based second language*

    instruction. Boston: Heinle and Heinle.

Crandall, J. (1999). Content-based instruction (CBI). *Concise encyclopedia of educational*

    linguistics. Oxford, UK: Cambridge University Press.

Kothari, C.R. (2009) *Research Methodology – methods and techniques, second revised edition.*

    New Delhi: New Age International Publishers.

Brinton, D. (1988). Content-based language instruction: Investigating the effectiveness of the

    adjunct model. *TESOL Quarterly*, 22: 553-574.

Eskey, D. (1997). Syllabus design in content-based instruction in Snow and Brinton (eds.) *The*

    Content-Based Classroom. New York: Longman.

Richards, J., & Rodgers, T. (2001). *Approaches and methods in language teaching.* New York:

    Cambridge University Press.

Stryker, S., & Leaver, B. (Eds.). (1997). *Content- based instruction in foreign language*

    education. Washington, D.C.: Georgetown University Press.

Krashen, S. (1982). *Principles and practice in second language acquisition.* Oxford: Pergamon

    Press.

Wajnryb, R. (1990). *Grammar dictation*. Oxford: Oxford University Press.