

THE CHALLENGES AND RESERVATIONS OF PLANNING CONTENT-BASED INSTRUCTION IN IRANIAN EFL SETTING: A SHOCKING PEDAGOGY

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Abstract. *Admittedly, no research has to date been conducted into the content-based language teaching (Herewith, CBLT) concerning learning both language and subject matter in Iranian EFL settings associated with Bilingual Education System (afterwards, BES), aiming at teenagers. The study hence addressed these general issues: An Investigation into the EFL learners' (n=35) performance on grammar, vocabulary and subject matter related to sciences in CBLT. To these objectives, upon taking account of instrumentation, i.e., pre-test, materials for treatment, and a proficiency test as well as the reliability of the tests and field testing, post-tests pursued by a two-month treatment for 16 sessions associated with grammatical and lexical competence and content knowledge of the learners were administered. Statistically viewed, a Paired Samples t-test run on the learner's pre-test/post-test grammar performance was indicative of a statistically non-significant difference. Likewise, the results of t-test run on the learner's pre-test/ post-test vocabulary performance displayed no statistically significant difference. On the contrary, with regard to the third research question, another Paired Samples t-test was conducted to find out their performance on sciences and the result reached a statistical significance. Given the statistical evidence, generally viewed, teaching sciences to general-English non-proficient learners led to a high performance on content, but to a low grammar and vocabulary improvement. On the basis of the implications of the study, some notes are made: since BES is a country-wide program in some schools and also with a view to the absolute paucity of research in this field, the study inspires and demands further investigation into the ins and outs of BES. As well as this, because the project targets at teenagers with poor general English proficiency, some extra-curriculum courses in conjunction with developing general English must be accounted for. On top of this, in a word, the far-fetched consequences of BES on the teenage learners and the required measures and reservations are further argued as relevant implications.*

Key words: *Content-Based Instruction, Subject Matter, General English Non-Proficient, Extra-curriculum*

1. INTRODUCTION

The pedagogy of content-based language teaching (CBLT) has so far grown an issue of concern with the realization that teaching content via a second/or foreign language cannot be adequate and cannot contribute so much to language development (Lyster, 2007; Hoare, 2007; Saunders, & Goldenberg, & Gallimore, 2009). This considered, the instruction in reading in general and in ESP reading and content based instruction, particularly, is gaining more momentum (Shabani & Ghasemi, 2014), so that Turner (2013) states that content and language integration is emphasized and is recognized a type of bilingual education, gaining momentum in Europe.

By definition, CBI is a type of EAP (James, 2006) and, as an umbrella term (Valeo, 2013), refers to a total body of immersion project (Cenoz, 2015). Also, in descriptive terms, content-based language teaching (CBLT), or content-based instruction (CBI), is founded on Krashen's (1987) theory of the Monitor model and comprehensible input, thus CBLT is in line with the reality that language learning happens when students are involved in texts and activities that are meaningful to them and suitable to their needs, without openly focusing only on the linguistic forms and structures. Evidence from immersion studies (Dupuy, 2000; Lazaruk, 2007; Tan, 2011; Leung, 2016)- knowing the number of which is sort of difficult (Tedick & Wesely, 2015) and other CBLT studies conducted in a wide expanse of educational contexts (Swain, 1988, 1996; Tan, 2011; Borg, 2003) have found that learners develop fluency, functional abilities, and confidence in using their second language. Learners also demonstrate equal or higher performance levels in subject matter (Davison, 2006; Turnbull, & Lapkin, & Hart, 2001). These studies indicate that CBLT can be highly successful, especially in early immersion contexts.

Along this line, Stoller (2004) and Mohan and Huang (2002) enlarge on the pedagogical vitality of content-based agenda, stating that there lies an interface between language and content in content-based project. Along this line, Cammarata and Tedick (2012) focus more on the integration of language and culture. So, that there lies an intimate relationship between content and language is on general consensus a pedagogical basis on which CBLT is established; this closeness and intimacy is so noticeable that some researchers, e.g., Kong (2009) and Lyster (2007) state that relying on the content demands and requires language, so there should be provided some opportunities for the students to broaden and deepen their language proficiency and also, language language and content mutual interdependency should be emphasized (Gieve, & Cunico, 2012; Lyster, & Ballinger, 2011); as well as this, they follow to argue that CBLT can develop the cognitively complex academic language. By the same token, Kong (2008) and Hoare (2010) maintain that in CBLT, the teachers are required to combine content and language, as the synthesis rather than separation of both will lead to the learning of both. By the same token, Tan (2011) states that for successful learning of mathematics or science, students must first master the subject's specific discourse, hence, there is a general consensus with a view to thinking in consonance with integrating language and subject learning into the class, as both are pedagogically significant. Therefore, within this paradigm, language and meaning can be mutually constitutive (Walker, & Tedick, 2000; Kong, 2008; Snow, & Met, & Genesee, 1989).

However, other researchers note that comprehensible input and meaningful contexts by themselves are not enough (Snow, & Met, & Genesee, 1989; Swain, 1996; Lyster, 2007; Cammarata, 2010; Richardson Bruna, & Vann, & Escudero, 2007), and they stress the need for learners to concentrate on language through form-focused instruction that includes

awareness and practice tasks as well as corrective feedback. Moreover, for optimal student learning, language and content teachers must plan and structure language activities in content classrooms (Sato, & Kleinsasser, 1999; Snow, & Met, & Genesee, 1989; Walker, & Tedick, 2000). Some researchers (e.g., Solis, 2008; Stoller, 2004; Short, & Echevarría, & Richards-Tutor, 2011; Stoney, & Oliver, 1999; Richards, & Renandya, 2002; Pajares, 1992) hold the status that the additional languages promoted by CBLT run the gamut from second and foreign languages to regional, heritage, and indigenous languages.

In support to and pursuance of reviewed literature, on 2007, with the advent of an opening ceremony in Tehran named 'Bilingual Education System', there was an incredible attempt to teach sciences and math to the so-called teenagers aged 13-19 in approximately 20 provinces in Iran. The very nature of the project was praise-worthy and the result is in view of those running the program promising, but there are some reservations in the process of the project. As the author of the paper, I was one out of 90 candidates who took a 50-hour training course in association with how to teach sciences and math to the teenagers; I together with colleagues was expected to launch on instructing sciences and math in a project called content-based instruction at Bilingual Education System.

At first, disappointed, but with the perseverant pursuance and effort, and after documenting the pedagogical conceptualization of the course, I designed a research study that I hoped might cover the nature of some of the project camouflaged in drawbacks. Following the event, the perspective taken in this article differs from the one adopted in normal content-based instruction associated with adults. That is to say, most studies of content-based instruction have been in connection with adults' course rather than related to those aged 13-19. This is what puts the nature of the data present in the study in marked contrast to other content-based studies. A further note regarding the data follows that I have collected and analyzed the data in 2007 and due to my recent interest in content-based agenda, It occurred to me to run this paper and picture the whole reality into an investigative frame.

Grounded on the above notes, this article reports a study of how 13-19-year-old school students at Bilingual Education System go through content-based instruction, in spite of their inadequate general English proficiency. This given, there is some elaboration on the fact that how the teachers conducting CBLT, i.e., the teachers who have undertaken Teacher Training Course at Bilingual Education System, bring about cognitive engagement with content (Kong, 2009; Kong, & Hoare, 2011; Solis, 2008; Voke, 2002), in doing so, they conduct an exertion to provide the potential for the learning of academic language, i.e., language associated with science. Therefore, drawing on the data available, the following research questions are more illustrative:

1. Does the performance of the learners on general vocabulary develop in CBLT?
2. Does the grammatical competence of the learners develop as a result of CBLT?
3. Do the learners gain the knowledge of subject matter, i.e., science-related content, in CBLT associated with BES?

2. THE STUDY AND THE METHODOLOGY

The present study consisted totally of 35 test takers aged 13-19, exclusively those being at 13 or so, studying math and science in English in CBLT project; but for the purpose of the study, just the science related data were tackled. They were without any adequate general knowledge of English language. They were all my own learners; they

were all incapable to read as expected, to write and infer the cognitive sense from the text, as these all need general English adequacy and are considered as drawbacks, being severely challenging to CBI project. Some of them did not even know English language alphabet well. Since they could not read accurately, they were instructed based on picture of the content-based book. I suffered too much as it was demanding cognitively to the learners and challenging to me to make them perceive what in the reading was in terms of both content and language. The class was run bilingually, in Persian and English. The intended project had five instructors, but for avoiding the effect of instruction strategy on the performance of the learners, I strove to collect the data alone in 2007.

As regards the instrumentation, a proficiency test associated with grammar, vocabulary and content, each including items were used. The grammar and vocabulary prompts were extracted from the course book instructed at CBI course called 'Sciences for Bilingual Education system'; the questions were descriptive and every item was scored 2, totaling at 20. Likewise, the content questions were also extracted from the same course-book with the same number of items as grammar and vocabulary test.

On the notes related to procedure, at the outset, upon administering a proficiency test to the participants so as to place them into an appropriate level, they were treated for two months (16 sessions), two sessions a week, some instruments including proficiency test, pre-test and post-test associated with grammatical competence, general English words and content-based words. Obviously, as the treatment indicates, the study was quasi-experimental, without control group and with just experiment group associated with pretest- posttest predesign in between a treatment. A point worth citing is that the proficiency test I administered was not needed because the level of the learners was a beginning one and at this level, customarily no urgent need was felt for administering a test for placing them appropriately, but in the study for evaluative objectives it was done.

3. DATA ANALYSIS

As it is clear from Table 1, the descriptive statistics associated with proficiency test for the purpose of realizing the performance of the learners out of 20 on vocabulary knowledge ($M= 4$; $SD= 2.10$), Grammar knowledge ($M= 5$; $SD= 3.05$), and Content-knowledge ($M= 5.5$; $SD= 3.55$) with minimum and maximum performance on all these three tests clarified. This in mind, it grows more obvious that they had little or no gain on the items.

Table 1. Descriptive statistics on the proficiency of the teenage learners on vocabab, grammar, and subject matter associated with sciences

Proficiency Test	Mean	N	SD	Minimum	Maximum
Vocabulary test scored out of 20	4	35	2.10	0	7
Grammar test scored out of 20	5	35	3.05	1	6
Content-based test scored out of 20	5.5	35	3.55	2	6

As Table 2 reveals, the run t-test on the performance of the learners before and after the treatment associated with vocabulary reached a statistically non-significant difference ($t = -1.48$; $p < 0.14$; $Mean = 4.25$ VS. $Mean = 4.90$); the drawn conclusion pursues that, in

CBLT, the vocabulary knowledge of the learners did not improve, so the first research question is rejected strongly.

Table 2. T-test on the vocabulary performance of the teenage learners in CBLT

Language (Vocab)	Mean	N	SD	t	df	Sig. (2-tailed)
Pre-Test	4.25	35	2.10	-1.48	34	0.14
Post-Test	4.90	35	3.05			

Table 3. T-test on the grammar performance of the teenage learners in CBLT

Language (Grammar)	Mean	N	SD	t	df	Sig. (2-tailed)
Pre-Test	5.94	35	2.77	-1.42	34	0.19
Post-Test	6.97	35	3.80			

In a parallel line with the findings in Table 2, as Table 3 displays, the run t-test on the performance of the learners before and after the treatment associated with grammar reached a statistically non-significant difference ($t = -1.42$; $p < 0.19$; Mean= 5.94 VS. Mean= 6.97); the drawn conclusion pursues that, in CBLT, the grammar knowledge of the learners did not improve, so the second research question is also rejected strongly. Contrary to the learners' language-related performance, they performed better on subject matter (See Table 4 below).

Table 4. T-test on the performance of teenage learners on sciences-related content in CBLT

Subject matter	Mean	N	SD	t	df	Sig. (2-tailed)
Pre-Test	6.57	35	3.52	-1.32	34	0.0000
Post-Test	14.48	35	3.30			

Despite the statistical fact in Table 2 and 3, i.e., the low performance of the learners on grammar and vocabulary in CBLT, Table 4 suggests that the run t-test on the performance of the learners before and after the treatment associated with subject matter, i.e., mastering the content related to sciences, reached a statistically significant difference ($t = -1.32$; $p < 0.00$; Mean= 6.57 VS. Mean= 14.48); the conclusion hence suggests that CBLT in BES boils down to content development and subject matter mastery.

4. DISCUSSION AND CONCLUSION

The mastery of the language of mathematics and science becomes more complicated when the students are learning these subjects in a foreign language (Tan, 2011). This taken, the position taken in this study is in relation to the teenage learners, so what comes to the fore front is that the learners targeted in the present study are faced with multiple challenges in content-based instruction, however some rich result in connection with content learning rather than language, i.e., grammar and vocabulary development, has occurred. Another solid evidence for this challenge comes to play when we find the content complex and abstract.

Let us illustrate the point with an example. The learners aimed here are aged 13-19, exclusively 13 or so; some of them had problem with alphabet due to their age and lack of previous exposure to the required input; they had never learned the present perfect, past perfect, simple present or past simple; but, due to content necessities and circumstances, they are exposed to these unprepared-for language items. Sounds moving, doesn't it? Considering the issues of Pinnman's readability and teachability hypothesis (Richards & Renandya, 2002), how ready in general-English terms, are the learners to pursue this course? How beneficial can this CBLT be to the learners suffering from general English proficiency required for full perception of the subject matter and deep analysis of the content? As well as this, there is a need for a content teacher, in addition to a language teacher, to bring about a situation for internalizing and solidifying learners' understanding; contrary to the urgency of the need, there was no content teacher, however there lies too much promising message in connection with the possible future existence of such instructors. This was and is another drawback to CBLT in BES.

To put the point on a more tangible footing, if the teacher strives to bring about engagement to the students in CBLT by both content and language, since the inherent content is at the technical academic knowledge level, no guarantee will be promising. As it is on general consensus accepted, language and content are not separable, so the interpretation and inference of one from another should be placed on a continuum; this underscores the pivotal role played by the teachers in CBLT and highlights the urgent need for professional development to support them in meeting some of the challenges specific to CBLT. The decisive role of teachers in CBLT is therefore pinpointed in these studies, because the teachers in CBLT pedagogy can bring the potential for students' language and content development, but in the present study, the learners are deprived of language learning, but just content seems to be well-perceived. This is not enough of course, because the belief is that both content and language should be integrated and the output should be also gauged with a view to both. In this line, it is solely the pedagogy embedded in further research into the case at hand that can bring about the difference in understanding the status taken in the study, so that these all can give challenges to the status quo and also a moment of reflection can furnish some guidelines to the future trends in the field.

On a brief note, BES in Iran is targeted at the teenagers at school level; however some productive findings in connection with subject matter has been observed and the findings in the present investigation are typical of this fact, some reservations should be taken into the consideration of all instructors of the course, course designers, curriculum developers, and stakeholders involved in the project. This granted, the article offers guidance for strengthening professional development for teachers; therefore, the quality of instruction they deliver to English language learners should be triggered to the level of the learners and be interpreted to the understanding of the learners, so that the students strengthen their English language and academic outcomes.

On the recapitulated side of pedagogical implication, some reservations must be born in mind, because it is research empty, and without research into this project, i.e., CBLT in BES, there might be observed negative side-effect, because it targets at the teenagers who are not provided with required general English; of course, the content of the book has been composed as simply as possible, since the learners are not provided with general English; also, their age did not fit the cognitively demanding content of the book; its negative side-effect must also be considered and the future trend of the project must be

accompanied by pedagogical implications associated with the to-be-conducted research into BES; these all are embedded in reservations and challenges; that is why we called the project a shocking pedagogy. The whole argument, however, runs that the net effect of the CBLT in BES in Iranian EFL context must be analyzed and welcomed and, as such, this welcome process must run with direct reference to gaining support from the research findings. We opened the research gate and other urgent investigation is also deemed to be led for promising future.

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