The Impact of Code-Switching on Bilingual EFL Learners' Reading Comprehension

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Abstract

This study sought to investigate the probable effects of code-switching (CS) on Iranian bilingual English learners' reading comprehension. In this study, two intact classes of freshmen, taking the four-credit Reading and Comprehension Course 1, comprising a total of 70 participants, with 35 in each class, were randomly assigned as the experimental and the control groups after their initial homogeneity in reading comprehension was assessed via the reading section of the Preliminary English Test (PET). In the experimental group, the participants were allowed to switch codes during the twenty-hour-treatment that extended over five weeks. The participants in the control group, however, were required to rely exclusively on English as the language of communication and instruction with no CS. The independent samples t-test of the post test scores, administered at the end of the treatment, revealed significant differences in the reading comprehension of the two groups. The experimental CS group outperformed the control group. Since variables such as proficiency, teaching materials, and teach methodology, were kept constant in both classes, CS might be regarded as one of the probable causes of different levels of achievement in reading comprehension in both groups. Cautious use of CS to promote different aspects of the learning process will be discussed in the paper.

***Keywords*:** Bilinguals, EFL Learners, Code-Switching, Reading Comprehension

Introduction

The term Code-Switching (CS) has been used to refer to different styles within the same language, for instance, formal and informal speech among monolinguals, as well as to the alternate uses of two languages in bilingualism and multilingual communities (Romaine, 1995; Grosjean, 1982), without a noticeable phonological assimilation from one variety to the other (Scotton, 1988) when the participants in the speech act know the two languages. The publication of numerous monographs and articles on the subject during the 1980s and particularly the 1990s along with the establishment of European Science Foundation (ESF) Network on CS and language contacts have brought about a change of attitude towards CS. It was no longer regarded as some inevitable behavior to be avoided in bilingual educational contexts, but a behavior with various linguistic, conversational, and social functions (Bonvillain, 1993; Huerta-Macias, 1983; Wong, 2000; Rubin, 1968) which called for close investigation.

Franceschini (1996, cited in Auer, 1998) associated CS to variability of language use which is a general linguistic characteristic and to flexibility in behavior which is an extra-linguistic characteristic. Experts have now reached consensus that CS is a rule-governed behavior common to approximately half of the world's population (Grosjean, 1982) which satisfies a momentary conversational or social need and marks "that point in the development of bilingual learners when they are conscious of such behavior and choose more or less purposefully to use it" (Duran, 1994, p. 71). This behavior implies some degree of competence in the two languages even if bilingual fluency is not yet stable and is shown after the bilingual speaker undergoes a two-stage decision making.

In contexts where English is taught as a foreign language (EFL), an ongoing debate has centered on whether the target language should be used as the only medium of instruction, or learners' mother tongue can play a complementary role as well (Macaro, 2001). A major repercussion of the overemphasis during the 1970s and 1980s on learners' legible need for target language input (Krashen, 19???) banned CS as an essential requirement for helping learners develop effective communicative skills of language. According to Simon (2001), CS in foreign language classrooms has been typically thought of as a practice to be avoided, if not forbidden at

all, and even those teachers who have felt obliged to switch codes have usually felt guilty of doing so. She suggests that EFL classroom represents a unique bilingual context in which the participant learners are aware of the pedagogical contract which governs code choice in different pedagogical situations. However, their limited knowledge of the foreign language may increase the probability of CS despite social and institutional focus on the exclusive use of the foreign language by the teachers and the learners. English language teachers who teach in such contexts have normally been concerned about reducing or even abolishing students' use of the mother tongue in the classroom and maximizing the use of the target langue so that to compensate for rarity of natural exposure.

In contrast to views on CS as some problematic behavior in EFL classrooms, Cook (2001) construed of CS as a natural phenomenon in a setting where the participants share two languages and proposed that language teachers' ability to take advantage of both codes can help them create an authentic learning environment. He, further, made a distinction between the functions that CS may serve when used by teachers or learners. Teachers may switch codes in an EFL classroom to convey meaning of words or sentences, to explain grammar, and to organize classroom activities. Students, on the other hand, may resort to their mother tongue as part of the learning activity in the form of translation activities, or as a social activity in the social context of the classroom, for example, to explain an assigned task to classmates.

A major issue in CS studies has centered on who code-switches, when, where, and for what purposes. Aitchison (1991) has noted that it is the language learners who switch codes to seek assistance, and that teachers uses of L1 is restricted to responding to learners' requests. The pupils who on encountering difficulties with vocabulary, ask for the foreign language equivalents by giving the expression in the mother tongue, behave in the same way as many natural bilinguals in families where the two languages are spoken. In other words, CS is an integral part of the speech of bilinguals. The mother tongue does not take over, but is a necessary conversational support. Even if it was possible to banish it from the classroom, it could never be banished from the pupils' minds. Therefore, it should not be

regarded as the last resort, but a natural short-cut which must be used properly and systematically, quite sparingly and unobtrusively.

The role of learners' mother tongue in EFL classrooms, as well as the use of translation as a language learning and teaching activity, has long been the subject of much controversy and academic debate. Originally, translation featured as the central axis of pedagogical procedure in the earliest methods of language teaching like Grammar Translation Method (Richards & Rodgers, 2001). This activity was, further, criticized and eliminated with the advent of the Direct Method towards the turn of the century. Since that time, fluctuations have been evident in the attitude toward the use of the learners' first language in instructional contexts. With the advent of Communicative Language Teaching approach in the seventies, the use of the mother tongue in monolingual contexts has been frowned upon and has excited rather negative attitudes in EFL and ESL pedagogy. Such negative attitude associated with L1 use is still evident in current learner-centered educational systems in which instructional attempts are made to help learners develop foreign language skills in a supportive communicative learning and teaching context that is characterized with sufficient amount of comprehensible input in the target language (Krashen, 1985). Ferrer (2005) has suggested that even learners, especially the more advanced ones, seem to reject translation or resorting to their L1 explicitly in the language classroom possibly because they are constantly reminded of how ineffective and dangerous it might be as a learning technique. Additionally, translation has usually been treated either as a text-based discipline in itself rather than as a learning resource at sentential level, or as an evaluative device.

In recent years, however, the use of L1 and translation activities in language teaching has enjoyed renewed attention (Juarez &Oxbrow, 2007; Atkinson, 1987, 1993; Auer, 1991; Deller&Rinvolucri, 2002, Ferrer, 2005). Of course, the renewed L1-based methodological approach has principally been promoted by practicing teachers rather than supported by empirically based studies of linguistic achievement (Deller&Rinvolucri, 2002). It has been suggested that learners' L1 might be included in limited doses, simply for procedural or managerial issues such as setting up tasks, monitoring group and pair work, giving instructions or checking comprehension

(Atkinson, 1987, 1993). Despite the legitimate emphasis on trying to directly associate meaning and form in a target language, educators and teacher trainers have given their consent to the use of L1 d for certain purposes such as explaining difficult concepts, checking comprehension, or vocabulary clarification (Prodromou, 2000). This consensus seems to conform to the recent findings in cognitive and humanistic schools of psychology which highlight the significance of depth of processing and relieving the burden on the learner. Apart from the verified functions of switching to learners' L1, the sociocultural characteristics of the educational context may play an overriding role in delineating the effectiveness of this technique. That is to say any decisions regarding the extent to which CS might be recommended in a language classroom seems to be reliant on an meticulous identification of the learners' propensities and their expectations from the educational system. Of course, this should not be interpreted as an immature resort to learners' L1, rather CS needs to be regarded as the final resort to extricate the learner from the complexities involved in the input which is employed to complement learners and the teacher's attempt to communicate in the langue and to save time.

In an analysis of classroom CS research, Jones (1995) identifies three major historical phases each addressing different aspects of CS. During the first phase, for example, 1970s, most of the investigations were conducted in bilingual contexts where English was taught as a second language (ESL). Such research projects were quantitative in nature and looked at the amount of English or other codes used in second language classrooms. The second phase of classroom CS studies focused on teachers' language use and revealed the nature of discourse functions associated with the choice of code. For instance, it was found that English as the target language was used for managerial and instructional functions whereas learners' first language (L1) was reserved for social functions in the classroom (Milk, 1981, cited in Jones, 1995). The third phase was marked with the rise of ethnographic research in which conversation analysis emerged as an innovative method which enabled the researcher to conduct detailed situational analyses of both teaching and learning events. This new approach took into account the linguistic and cultural background of the participants which were seen to

affect the patterns of interaction (Jones, 1995). In the 1990s, however, the scope of classroom CS research was extended to micro-ethnographic studies in which the researcher observed classroom interaction and selected specific events for closer analysis (Jones, 1995).

In line with the renewed attention to the contributions that CS may make to the process of EFL learning, the present inquiry adopted a micro-ethnographic approach to the investigation of the probable impact of limited doses of CS on bilingual Iranian learners' reading comprehension in two EFL reading classes. The researcher observed the classrooms and recorded different interactional patterns that took place between the students and the teacher.

It was hypothesized that resort to CS enhances Iranian bilingual EFL learners' reading comprehension when they encounter comprehension problems. To investigate this hypothesis, the researchers formulated the following research question:

1. Does code-switching influence bilingual EFL learners' reading comprehension?

Method

Participants

A sample of 90 female and male bilingual Iranian EFL sophomores at Islamic Azad University-Tabriz Branch participated in this study. The type of sampling employed in this study was the available group sampling. Since intact classes formed the research sample and randomization was impossible, the researchers used a pre-test post-test design to ensure groups homogeneity at the onset of the study. The research sample comprised two classes with a minimum of 35 students in each, which were randomly assigned to the experimental (CS) and the control (non-CS) groups.

Instruments

The research data were collected using two 35-item reading parts of the standard Preliminary English Tests (PET), released by Cambridge ESOL exam (lower-intermediate examination for learners of English). The tests placed some emphasis on skimming and scanning skills and were designed to test a broad range of reading skills. The texts were drawn from the real

world. The test takers' attention was drawn to timing (45 minutes) and they were advised to divide up the time between the various parts of the paper. On both tests, owing to the instructors' policy, all the scores were multiplied by two to obtain a final score of 70.

One of the reading tests was administered at the onset of the study and the results were submitted to an independent t-test to ensure initial homogeneity of the groups in reading comprehension. The other test was administered at the end of the semester as the post-test to measure the amount of progress in both groups and also to examine the effectiveness of CS in the experimental group.

Procedure

The experimental and control groups attended English classes two times a week for approximately ten weeks. Executive restrictions made it virtually impossible to have the classes run by the same teacher. Thus, the researchers consulted with the teachers about the method they used in the classroom and selected two teachers whose teaching methods could be described as more or less similar.

Every other session, the participants in each class worked on one passage from the same coursebook (Kirn& Hartmann, 2002). Each unit started with a topic introduction activity in which the topic and a relevant picture with some pre-reading questions were introduced to let the learners brainstorm the topic through pair-work activities. Silent reading of the texts followed the pair-work question and answer activity, and the learners were required to answer the follow-up questions, do various activities, for instance, matching words and phrases, finding the main idea, identifying the unknown words, etc., and finally to discuss the text.

The only difference between the experimental and the control groups was related to the use of learners' L1 during different activities. The teacher provided the learners in the experimental group with the opportunity to switch to Farsi or Azeri while doing different reading tasks in case of comprehension problems. The learners in the control group were not allowed to use any form of CS.

Design

The design employed in the present study was a quasi-experimental pre-test, post-test design which is usually selected when intact classes form the research sample. This design was used to investigate the impact of the independent variable, the use of CS, on the dependent variable, the learners' reading comprehension skill.

Results

The test scores obtained from the pre-test were subjected to an independent samples t-test, with the alpha set at .05, to test the groups' homogeneity in reading comprehension at the onset of the study. Table 1 presents the descriptive statistics and the results of the t-test analysis.

Table 1

Descriptive Statistics and T-Test Results of the Reading Pre-Test Scores

Groups	N	Mean	St. Deviation	t	df.	Sig.
Experimental	35	43.22	13.48	.058	68	.95
Control	35	43.42	15.14			

As shown in Table 1, the difference between the groups did not reach significant level which corroborated the initial homogeneity of the groups' in terms of their reading comprehension, $t(68) = .058$, $p = .95 > .05$.

The Impact of Code-switching

Having administered the reading post-test, we submitted the test scores to an independent samples t-test to estimate any probable significant difference between the groups. Table 2 presents the descriptive statistics and the results of the analysis.

Table 2

Descriptive Statistics and T-Test Analysis of the Reading Post-Test Scores

Groups	N	Mean	St. Deviation	t	df.	Sig.
Experimental	35	62.20	8.55	5.910	68	.000
Control	35	47.31	12.19			

As illustrated in Table 2, the mean score of the experimental group who were allowed to use CS during the course obtained a higher mean score (62.20) on the post-test compared to the mean of the control group (47.31). The t-test analysis revealed that the difference between the groups was

statistically significant, t(68) = 5.91, p = 001< .05. Hence, the research question is answered positively,that is, CS improves bilingual EFL learners' reading comprehension.

Discussion

The significantly higher reading comprehension mean score of the experimental group compared to the control groups, as indicated in Table 2, substantiate the positive impact CS had on Iranian EFL learners' reading comprehension. The findings might be discussed with regard to the wide range of interwoven strategic, cognitive, and affective functions that CS can serve in the interactions that typically take place in a language classroom particularly in the foreign language contexts.

Flyman (1997) underscored the strategic function of CS that allows foreign language learners with the same mother tongue to switch to their L1 in an attempt to overcome communication problems in classroom learner-learner interactions and comprehension problems when the content is beyond their cognitive resources. In the latter case, through CS, they will manage to relieve the burden on their cognitive resources which can in turn provide further impetus for pursuing instruction. An additional advantage of permitting intermittent CS would be to gradually remove learners' affective barriers to learning,

The cognitive and pedagogic functions of CS have been acknowledged by Cook (2001) who gave credence to systematically planned CS activities, for example, translation. The suggestion seems legitimate in relation to materials that are more abstract in nature or those for which learners do not have prerequisite repertoire, and with regard to the paramount significance of enabling learners to comprehend and then consolidate newly learned information.

FlymanandBurenhult (1999) approve of teachers' brief use of CS, remarkably at the end of the teaching sessions, as an evaluative device to verify learners' understanding of the teaching point and diagnosing probable mismatches between teaching and learning. Under particular conditions, CS has been advocated even at university level (Polio & Duff, 1994) as the

lastresort time-saving technique to manage the class time and to facilitate comprehension.

It should be borne in mind that the participants in the present study were mostly bilingual learners, with Azari as their first language and Farsi as the second, who were learning English as a third language. The context of learning is highly restricted in terms of exposure to genuine English outside the classroom. Hence, according to Aitchison (1991), the code switcher participants in the present study seem to have benefited from the opportunity not only to better understanding the content but also to learn how to decipher meaning more adequately while reading.

The findings are in line with previous research finding (Cook, 2001; Flyman, 1997; Flyman & Burenhult, 1999; Macaro, 2001; Polio & Duff, 1994). No previous studies in EFL contexts have yet claimed that excluding CS would enhance either the route or the rate of language learning (Macaro, 2001). Conversely, it has been suggested that teacher's ability to use both the mother tongue and the learners' target language creates an authentic learning environment wherever the speakers share two languages (Cook, 2001). Research findings might be interpreted in terms of contextual factors such as learners' beliefs and preferences which are influenced by their socio-cultural background. On the one hand, any educational context might be regarded as a complex system with numerous interwoven and interrelated components, for instance, learners, teachers, beliefs, policies, activities, etc. Thus, generalization of the findings from one context to other settings entails great caution. On the other hand, owing to the significant role that language learners can play in the process of learning, their preferences and beliefs might be regarded as the defining factor influencing teachers' answer to the question of whether to switch codes or not. The participants in this study seem to have benefited from CS partially because they were bilinguals.

In line with the findings from previous studies, the finding emerging from the present enquiry suggest that mere exclusion of CS from the language classroom does not necessarily enhance the learning process, at least when reading skill is concerned. A positive or negative answer to whether switch codes or not cannot be offered based on a single study which has suffered from a number of limitations and delimitations. Even a

tentative answer to this question calls for extensive empirical research. Interested teachers and researchers who may decide to approach the question more meticulously may decide to replicate the study with larger samples and more groups of participants at different levels of proficiency to consider the probable relationship between CS and learners' proficiency level. It will also be possible to control, more restrictively, the teaching variable by having the experimental and control classes run by the same teacher. Moreover, inclusion of other language skills and sub-skills can broaden our understanding of the very nature of the relationship between CS and learners' attainment in EFL classrooms.

What seems evident is that sound and informed pedagogical decisions and choices of goals, materials, and methodological and evaluative options can make a difference to the pedagogical outcomes that learners achieve in EFL instructional contexts. Such decisions need to be made in accordance with learners' sociocultural background. It is hoped that Iranian English language teachers at all levels approach this challenge more methodically to make more well-informed decisions.

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Biodata

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