A Comparative Study on the Effects of Core and Peripheral Teaching on Iranian EFL Learners' Writing Skill in Conventional and Cyber Environments

Seyyed Mohammad Reza Yousefi Far[1,*]; Abdolreza Pazhakh[2]

[1] Department of English, Shahreza branch, Islamic Azad University, Shahreza, Iran.
[2] Department of English, Dezful branch, Islamic Azad University, Dezful, Iran.
*Corresponding author.

Abstract

This study aimed to find out the effects of core and peripheral teaching on Iranian EFL learners' writing skills in conventional and cyber environments. After administrating a Nelson (Fowler & Coe, 1976) test, a group of 160 homogeneous students at language institute were selected from a total population of 200 at the intermediate level in Dehdasht, Kohgiloyeh & Boyer Ahmad province, Iran. Then, they were randomly assigned to control and experimental groups and each into subgroups. While experimental sub-group A was assigned to physical (conventional) environment and received instructions regarding core and peripheral teaching, experimental sub-group B was assigned to cyber environment and received instructions regarding core and peripheral teaching. One sub-control group was assigned to physical environment and received no instruction, while the other control subgroup was assigned cyber environment. A T-test was conducted to compare the subjects' means and to determine the effect of core and peripheral teaching. The results depicted that peripheral teaching in both physical and cyber environments had a significant effect on improving Iranian EFL learners' writing skills, (P<.05).

Key words: Core teaching; Peripheral teaching; Conventional environment; Cyber environments

INTRODUCTION

Scholars are looking for methods rather than the conventional ones to solve the teaching problems of the people living in the modern world, and they prefer to use the modern techniques of the world. Teaching programs need to focus on not only novice teaching methodologies, but giving tools to practicing teachers to deal with the variety of issues presented in modern classrooms around the world.

Regarding the orientation and precedence and subordination of teaching to learning or vice-versa, teaching begins with the learner. To ensure that each student learns new knowledge and skills, teachers must understand that learning and developmental patterns vary individually, that students bring unique individual differences to the learning process, and that students need supportive and safe learning environments to thrive. Effective teachers have high expectations for each and every student. They implement developmentally appropriate, challenging learning experiences within a variety of learning environments that help each and every student reachhis or her full potential. They do this by combining a base of professional knowledge, including an understanding ofhow cognitive, linguistic, social, emotional and physical development occur. They implement this with the recognition that students areindividuals who bring differing personal and family backgrounds, skills, abilities, perspectives, talents and interests.

The education systems should embody new approaches to teaching and learning. They address inequities in school structures, financing, and climates so that all students have access to rich curriculum and learning opportunities. Education systems should also generate quality information and data that professionals can use to improve allstudents' learning. We need change unachievable with just a modification of current systems. Teachers are central to bringing about that change and they can play a key role in building strong curriculum, pedagogy, assessments, and the relationships necessary to support learners and advocate for their development. The study is an initial effort to articulate, through the lens of the teacher, what effective teaching and learning would look like in that new system. This research began with afocus on the learners, what assets and needs they bring to the learning experience, what engages them, and how we address the expectation that every learner will learn to high levels. It isclear that today's students are more diverse with various and special needs. Yet, their differencesare strengths. They want to challenge and contribute to decision-making. And they want their learningexperiences to be relevant and connected to real world problems.

RESEARCH HYPOTHESES

On the basis of the assumption that writing skill can be enhanced through core and peripheral teaching in physical and cyber environments, the following hypotheses are formed:

1. There is a significant difference between Iranian EFL test-takers' performance across core and peripheral teaching methods.

2. Knowledge conveyed by peripheral teaching remains longer in learners mind than the knowledge conveyed by core teaching.

LITERATURE REVIEW

The current project discusses the design of an innovative TESL/TEFL program and its proposed implementation. The study describes key curricular and administrative design issues associated with creating and implementing such a program for TESL/TEFL learner training.

Teaching programs need to focus on not only novice teaching methodologies, but giving tools to practicing teachers to deal with the variety of issues presented in modern classrooms around the world. One problem currently facing institutions which teach EFL learners is the ability to meet the demands and the needs of potential learners. Additionally, many students drop out, because the course books overloads their English skills, or they have personal challenges, or time management issues. Thus, TEFL programs are not as accessible or student supportive as they need to be. Indeed, because

information/communication technology gives such quick and easy access to large amounts of information, it has become important for accredited institutions to critically review curriculum in terms of both accessibility (to learning) and accountability (of skills and knowledge). It is the need for TEFL programs to be "more accessible, more instructionally effective and accountable, and more students supportive that motivates the current paper, whose purpose is to propose solution strategies for contemporary TEFL curriculum development" (Smith, 2009, p.6).

In another key study, Jones (2007, p.45), explored that "traditional technologies in teaching and learning were being supplemented and replaced by newer information and communications technology (ICT) methodologies". Through a study of tertiary science textbooks, Jones concluded that "the replacement of traditional technologies by ICT, created multiliteracy demands that were subject specific and created a need for a new 'meta-semiotic knowledge' related to specific subject literacy". Kress (2005), identified that "the implications of new learning technologies for re-defining disciplinary literacy and pedagogy, have yet to be fully explored" (p.22). Despite this recommendation however, current research on contemporary learning management systems largely seeks to identify the benefits of learning from the implementation of ICT platforms, ICT learning strategies, student outcomes and the nature of higher education teaching and learning innovations. As part of his findings in relation to the uptake of online delivery, Bradley (2008, p.33), reported that "face-to-face teaching was highly valued even though students enjoyed the flexibility offered by ICT-delivered courses or course content". Regarding engagement with teaching and learning resources, Bradley (2008), noted that "university students responded best to a broad mix of learning tools and resources, and that over-reliance on ICT-mediated methods may disadvantage some groups, namely low socio-economic background and mature age students". In a development worthy of concern, the Bradley (2008, p.45), review also identified relatively "low levels of student satisfaction in the general provision of teaching, support services and learning resources".

The online learning resources used to support asynchronous learning include email, electronic mailing lists, threaded conferencing systems, online discussion boards, wikis, and blogs. Course management systems such as CampusCruiser LMS, Blackboard, WebCT, Moodle, and Sakai, have been developed to support online interaction, allowing users to organize discussions, post and reply to messages, and upload and access multimedia (Bourne,1998). These asynchronous forms of communication are sometimes supplemented with synchronous components, including text and voice chat, telephone conversations, videoconferencing, and even

meetings in virtual spaces such as Second Life, where discussions can be facilitated among groups of students (Angelo, 1669). Online learning requires a shift from a teacher-centered to student-centered environment where the instructor must take on multiple new roles. The constructivist theory that supports asynchronous learning demands that instructors become more than dispensers of knowledge; it requires that they become instructional designers, facilitators, and assessors of both grades and their teaching methods McQuiggan (2007).

Regarding the connection between 'classroom' and 'fieldwork' in foreign language education Robert (2010) stated that "online exchange has also facilitated a greater connection between 'classroom' and 'fieldwork' in foreign language education as learners are now able to engage in 'semi- authentic' interaction with members of the target culture while still benefiting from the guidance and support of their tutors and classmates". While extensive periods of study abroad in the target culture continue to be seen as the ideal way to develop linguistic fluency in foreign language learners, online intercultural exchange is now increasingly being considered as an important tool for preparing students for study abroad as it allows them to experience intensive interaction with members of the target culture from the relative 'safety' of their own classroom. The European Commission's recent Green Paper on promoting the learning mobility of young people refers to "online exchange as a tool for preparing physical mobility or as a second-best alternative for those students and young people who are unable to engage in traditional mobility programmes" (European Commission 2009: 18).

METHODOLOGY

Participants

The subjects participated in this study were 160 learners of English as foreign language who were chosen from 200 students studying English at Navid Language Institute in Dehdashat, Kohgiloyeh& Boyer Ahmad province, Iran. All the population of students attending the Institute was administered a Proficiency Test (Fowler and Coe, 1976). Those whose marks fell between +1 SD above and -1SD below the mean were selected as intermediate level. Then, they were randomly divided into four homogeneous groups known as two experimental sub-groups and two control sub-groups; In effect, the rationale for the two experimental and two control groups was that the researcher had to conduct two methodological experiments, Core & Peripheral teaching (Hofer, 1667), under totally two different conditions, conventional physical class and cyber one, then the experimental group was randomly divided into two subgroups (A & B). Each sub-experimental group (A and B) consisted of 40 subjects, respectively. To follow the experimental design closely, the control group, in turn, was also

divided into two sub-groups (C and D). Each sub-control group consisted of 40 subjects, respectively. So the subgroup A in the experimental group was assigned to the conventional class and the subgroup B to the cyber environment. Finally, the sub-control group C was assigned to the conventional class and the sub-control group D to the cyber environment. All the participants in this study were to begin the fourth semester of their program in that institute.

Instruments

The instruments used in this study to collect, estimate and analyze the data were a thirty-item test of Nelson English Language Proficiency Tests (Fowler and Coe, 1976) in addition to students' course books in language institute, Paragraph Writing. In fact, the afore-mentioned proficiency test was used to sieve the participants in terms of their proficiency levels. The rationale behind adopting this test for the purpose of the study was that it is one of the rare available standardized tests compatible with Iranian students to decide on the proficiency level. Two TV sets and a CD player were used as the educational technological devices to show the peripheral aspects of teaching in physical environment. To make the environment or the context of teaching in such a way that contribute to learners' core and peripheral teaching (Hofer, 1997), our teaching took place in two environments, a conventional physical class and an internet based context (IBC). The cyber teaching representing an IBC constituted both on-line and off-line communication, live and corresponding through email with students. In order to compare the results obtained from the post-tests of the experimental and controls groups, a statistical T-test was used to determine the potential differences between these two groups.

Procedure

From a population of 200 students studying at Navid Language Institute in Dehdashat, Kohgiloyeh & Boyerahmad province, Iran, 160 subjects were selected in terms of Nelson Language Proficiency Test (Fowler and Coe, 1976) as the subjects of the study. Those whose scores fell 1SD above and 1SD below the sample mean on a proficiency test were considered as the intermediate level. The rationale for choosing the intermediate level was that there weren't enough students at other proficiency levels in the afore-mentioned Institute. Then, the intermediate ones were randomly divided first into two homogeneous groups, experimental and control groups. In fact the rationale behind this division was the fact that there were two different environments -conventional & cyber- with different teaching methodologies, Core & Peripheral teaching (Hofer, 1997). Then each was randomly divided into two subgroups: experimental and control sub-groups. The experiment group was also randomly divided into two subgroups (A & B), each

consisting of 40 subjects. So subgroup A was assigned to the conventional class and the subgroup B to cyber environment. The control group, in turn, was divided into two subgroups (C & D). The C group was assigned to conventional class, while D to the cyber class or environment. So there were, all in all, four sub-groups under the current study. First, the proficiency test was administered to both experimental sub-groups considered as the pre-test.

In the first sub-experimental group (A) consisting of 40 subjects, core and peripheral teaching were done in physical environment. While teacher taught the core - i.e. lesson – in a conventional way on the board, the peripheral teaching was done by two TV sets connected to a CD player already prepared on the two sides of the class. The two TV sets shown simultaneously disorganized words and after 15 seconds have ordered and organized them in proper way. The teacher paid no attention to the TV sets as if nothing existed there. At the end of the class, the TV sets were automatically turned off.

Unlike the sub-experimental group A who were exposed to core and peripheral teachings in conventional classes, the second sub-experimental group (B) being comprised of 40 subjects were exposed to core and peripheral teaching in a cyber environment, internet. Teacher was frequently in an on-line communication with students. He taught writing skills, and students were required to write passages based on the given topics and sending them back to the teacher through e-mail. The teacher read and corrected them, but at this time, as peripheral teaching, he added some phrases at the bottom of their writings without any explanation about them.

The sub-control groups in this study consisted of 80 subjects. That is, sub-control groups C and D each consisted of 40 subjects, respectively. Group C functioned as the control group for the core and peripheral teachings in physical environment, while, group D functioned as the control group for the core and peripheral teachings in cyber environment. For each teaching methodology, physical & core, the control groups were composed of 40 subjects, respectively.

DATA ANALYSIS

In this section, the collected data is analyzed, using paired T-tests for all comparisons related to the effect of core and peripheral teaching methodologies. The collected data was subjected to statistical analysis, descriptively and inferentially. To find out whether or not the differences between the subjects' means at this stage were statistically significant, the data were run through both paired and independent T-tests. To verify or nullify the stated hypotheses, the data obtained through Nelson language test (Fowler and Coe, 1976) as the homogeneity test and the post-test, tables 1 through table 3 all show different analytical procedures and phases. The early step used in analyzing data was to determine the homogeneity of the experimental and control groups regarding their levels of second language proficiency. So, the students' overall scores on Nelson language proficiency test (Appendix A) were collected from their records. Table 1 shows the descriptive statistics, frequency, mean and standard deviation for each of the four groups in terms of Nelson language proficiency test. It shows that each of the four groups had approximately similar performance on Nelson language proficiency test, In effect, they show no apparent significant differences.

Table 1
Sample Means and Standard Deviations for Homogeneity Test

Group	N	Maxi	Mini	Mean	Std. Deviation
Experimental Group (A)	40	16	5	11.67	2.20
Experimental Group (B)	40	18	6	11.90	2.32
Control Group (C)	40	16	3	10.80	2.60
Control Group (D)	40	18	6	11.83	2.02
Total	160	18	3	11.55	2.28

RESULTS OF T-TEST FOR METHODOLOGY USE

A T-test was carried out to compare two experimental groups' mean scores of methodology use. Based on these results, the hypotheses of inequality of means were approved, p<0.05. Tables 2 and 3 show the mean scores were higher for peripheral teaching in both physical and cyber environments than the core teaching. Therefore, learners use peripheral teaching more than core teaching and the second hypothesis was verified. And also these tables show that there is a significant difference between the experimental groups' means and the first hypothesis was verified.

Table 2
The Result of Paired Samples T-test for Comparing Mean of Pre-test and Post-test in Physical Experimental Sub-group with Core Teaching Methodology

Significant	Degree of freedom	T value	Standard deviation	Mean	Test
001	39	6.14	2.43	11.22	Pre-test
			2.52	13.90	Post-test

Table 3
The Result of Paired Samples T-test for Comparing Mean of Pre-test and Post-test in Physical Experimental Sub-group with Peripheral Teaching Methodology

Significant	Degree of freedom	T value	Standard deviation	Mean	Test
.001	39	8.24	2.71	11.03	Pre-test
			2.48	16.02	Post-test

Table 4
The Result of Paired Samples T-test for Comparing Mean of Pre-test and Post-test in Cyber Experimental Sub-group with Core Teaching Methodology

Significant	Degree of freedom	T value	Standard deviation	Mean	Test
.001	39	4.56	2.69	11.51	Pre-test
			2.35	13.88	Post-test

Table 5
The Result of Paired Samples T-test for Comparing Mean of Pre-test and Post-test in Cyber Experimental Sub-group with Peripheral Teaching Methodology

Significant	Degree of freedom	T value	Standard deviation	Mean	Test
.001	39	8.71	2.40	11.24	Pre-test
			2.21	16.40	Post-test

CONCLUSION

This study began with the assumption that core and peripheral teaching methodologies could enhance the intermediate language learners' writing skills (Hofer, 1997). The instruction lasted for two months. In the course of this time, the researcher (teacher) employed the above-mentioned teaching methodologies and instructed the participants in the experimental groups how to use core and peripheral teaching in their writing skills. The participants in the control groups, on the other hand, did not receive any instruction on the use of these teaching methodologies during their writing practice.

After the post-test, the results table 2 through 5 indicated that the instruction of the peripheral teaching methodology did affect the intermediate language learners' writing skill. Namely, the writing ability of the experimental groups who had made use of peripheral teaching methodology surpassed that of the control groups in their groups' means.

The purpose of this study was to determine the effectiveness of systematic core and peripheral teaching methodologies designed to assist students in writing skills. At the end of the course both the control and the experimental groups were administered the writing tests and the result of the T-tests were compared to find the effect of the two teaching methodologies. The results of the study confirmed that the writing skills could be improved through peripheral teaching methodology (Table 3 and 5).

The studies mentioned above revealed the fact that instruction of peripheral teaching methodology was pedagogically effective and precipitated the methodology use. If the teaching methodologies to enhance the writing skill are felt advantageous, it might be better to be limited to notifying intermediate language learners of core and peripheral teaching methodologies which they have to be taught to make them better use writing skills.

REFERENCES

Bourne, J. R. (1998, September). Net-learning: Strategies for On-campus and Off-campus Network-enabled Learning. *Journal of Asynchronous Learning Networks, 2*(2).

Brussels: European Commission. http://ec.europa.eu/education/lifelong-learning-policy/doc/mobility/com329_en.pdf

European Commission. (2009). *Green Paper: Promoting the Learning Mobility of Young People.*

Fowler, W. S. & Coe, N. (1976). *Nelson English Language Tests.* London: Bulter & Tannerltad.

Hofer, B., & Pintrich, P. R. (1997). The Development of Epistemological Theories: Beliefs about Knowledge and Knowing and Their Relation to Learning. *Review of Educational Research, 67*(1), 88-140.

Iannaccone, L. R., Finke, R. & Stark, R. (1997). Deregulating Religion: Supply-side Stories of Trends and Change in the Religious Marketplace. *Economic Inquiry, 35*, 350-364.

McQuiggan, C. A. (2007, Fall). The Role of Faculty Development in Online Teaching's Potential to Question Teaching Beliefs and Assumptions. *Online Journal of Distance Learning Administration,* 10. Retrieved October 11, 2008.

O'Dowd, Robert (2010). *Online Foreign Language Interaction: Moving from the Periphery to the Core of Foreign Language Education?*. Cambridge University Press.

Sherkat, D. E. (1997). Embedding Religious Choices: Integrating Preferences and Social Constraints into Rational Choice Theories of Religious Behavior. In L. A. Young (Ed.)*, In Rational Choice Theory and Religion: Summary and Assessment* (pp. 65–85). New York: Routledge.

Smith, C. (2009). *Meeting the Demand for TESL/TEFL Teachers: An Interdisciplinary Approach to Increasing Program Accessibility and Effectiveness*. Ph.D. diss., Northern Arizona University.

Stark, R. & R. Finke (2000). *Acts of Faith: Explaining the Human Side of Religion*. Berkeley, CA: University of California Press.