Employing Differentiated Instruction in the EAP Reading Comprehension Classrooms: An Exploratory Study of University Students' Burnout in the Blended Context

Zahra Borhani Esfahani *

MA Student, ACECR Institute of Higher Education, Esfahan Branch, Iran

Ehsan Rezvani

Assistant Professor, Islamic Azad University, Isfahan (Khorasgan) Branch, Iran

Abstract

This study endeavors to explore the effect of performing DI in blended context on Iranian EAP reading learners and find out a relationship between differentiating in teaching and academic burnout. First, 72 participants who were homogenous in terms of language proficiency and reading knowledge were divided into four groups: three experimental groups and one control group. Those students whose scores were with deviation from (-1 to +1) of the mean were selected as a participants of this study. The students in the control group were taught conventionally using the reading passages in their book, whereas, the experimental groups' learners were taught by both conventional methods and online methods. The results revealed that there was a significant difference between the experimental and control groups in a way that learners in experimental groups outperformed the students in the control group. further, the results showed that there was no significant sign of chronic stress and burnout among EAP reading students of this study, but according to the three symptoms of burnout in Burnout Questionnaire, it is obvious that the higher rates of burnout (Exhaustion) was related to the Kinesthetic group as a control group and the higher rates of Personal Achievement was related to the Visual group as an experimental group. The findings of this study will benefit EFL teachers as well as material developers.

Keywords: differentiated instruction, blended learning, EAP reading, academic burnout

INTRODUCTION

Many students abhor reading and writing and they feel the skills are highly challenging tasks. Thus, these days practitioners attempt to represent content materials in diverse formats in order to reduce the students' frayed feelings. According to Tobin and Tippett (2014), representing materials in variety of ways is one of the main principles of differentiated model of instruction (DI).

Reading skill is an important component in higher education (HE). According to Zafarani and Kabgani (2014), reading abilities allow students to receive knowledge, elaborate concepts, and integrate information from lectures and reference book's content. When professors are asked to understand their student's skills proficiency they often mention that students do not read carefully, cannot distinguish between significant and no significant ideas, and cannot adjust their reading skills to the different materials they encounter (Uhrig, 2015; Ro, 2016; Atai,& Nazari, 2011).

English for Academic Purposes (EAP) is mainly concerned with needs analysis. Brown (1995) describes needs analysis in language programs as "the identification of the language forms that the students will likely need to use in the target language when they required to actually understand and produce the language" (P. 36). EAP is an approach to second language (L2) teaching wherein practitioners' decision about materials and methods is based on the students' proof for learning (Hutchinson & Waters, 1987).

To develop lessons based on students' style and needs, it is difficult to address student based on DI approach. In fact, teachers' inability to establish a balance between lessons, student needs, and their styles leads to students' disappointment. Academic burnout is a feeling of less satisfaction and disengagement in the instructional-learning context. A growing body of evidence (e.g., Maslach 2001, Chang, Lee, Byeon, Seong, Min Lee, 2015) suggests that teaching style is the major cause of academic burnout.

RESEARCH QUESTIONS

Within this framework, the following research questions are addressed in the present study:

1. What learning styles do university students adopt for learning EAP reading comprehension?
2. To what extent is the DI in a blended instructional-learning environment applicable for teaching EAP reading skill?
3. To what extend does DI affect academic burnout among EAP students?

LITERATURE REVIEW

Student's burnout

 Maslach (2001) notes that "reduced personal accomplishment refers to [individuals'] feelings of lack of satisfaction from their performance" (p. 416). Although studies on burnout were initially conducted to examine chronic stress of service providers such as social workers (Maslach, Schaufeli, & leiter, 2002), there are, wide-ranging research led to expansion of this area to examine academic burnout in tertiary levels (Maslach et al., 2002). There are three symptoms of academic burnout recognized by Maslach et al. (2002), that is to say, emotional exhaustion which is associated with loss of physical and emotional abilities, cynicism with student feeling of disinterest towards academic

stimuli, and incompetence leads to students' underperformance (Shin, Puig, & Lee, 2011.

Student burnout reduces personal accomplishment at academy because of felling of indifference towards teachers and classmates (Rahmati, 2015; Azizi Abarghooei, Charkhabi, & Heyati, 2013).

Individual learning styles

Learning styles are innate preference of individuals as to how they prefer to go about the process of learning and it can be a factor which can be affecting the academic success of students. Sharp (2004) believes that during the process of learning there are many intermediary factors including age, gender, motivation, intelligence, anxiety level, learning strategies, and language learning styles that can determine the academic success of learning. Students learn in myriad manners by reflecting and acting together; seeing and hearing objects around them; arguing logically and intuitively; and memorizing and visualizing (Karthigeyan & Nirmala, 2013).

EAP reading

English language literacy can be introduced as a complex process that every student who is interested in studying English must learn to communicate easily in order to participate in different activities like jobs and economy. Grabe and Stoller (2001) believe that, amongst the four skills in English reading is considered to be the most important academic language skill because reading is the central means for learning new information. Typically, students do not receive any instruction on reading as an important skill in English and they know little about the strategies of reading complicated texts in their educational life (Haung, 2006; Kashe, Damavand, & Vijani, 2012).

During the process of learning English, the courses are often divided into two categories: English for General Purposes (EGP) courses and English for Specific Purposes (ESP) courses.

On the world of Greene (2007), EAP introduced as the most common branch of ESP courses. One of the fundamental frames on EAP courses is pay attention to the learner's needs, requirements, requests, and absence (Hutchison & Waters, 1987). Learner's needs analysis could be impress as one of the substantial phase while EAP courses are accomplish. Need analysis is about defining who the users are, defining their experience levels, their tasks and goals, consideration of the functions they want and need, and also the information they require during process of second language learning (Harris & Chapman, 2002).

Differentiated instruction

Differentiated instruction (DI) as a new approach has been the focus of many studies during the last decades. Some students, mostly in primary schools, deal with difficulties

in learning, the other students are completely different and can far exceed grade level expectations, and the rest goes in between (Tomlinson, 2000). Every student learns in different ways and students are varied when compare them together. Tomlinson's belief is that DI is a response to the students with different learning needs (2000). Koomen (2009) points to different aspects of DI and the way of using this approach. She asserts that DI is beneficial for students with exceptionalities as well. Also, scholars agree that some traits of differentiated classrooms are universally and it is possible to expand them to other areas of education (Aliakbari & Haghighi, 2014; Bantis, 2008; Chen, 2007; Tomlinson, 2000, 2001; Tomlinson & Strickland, 2005).

Blended learning

Comparing conventional context with blended context has been the subject of a significant amount of research. Many studies have been conducted to compare students' performance in blended and conventional settings.

In the literature, BL is defined as a joining of multiple delivery media in order to complete each other and obtain meaningful learning (Singh, 2003). BL is an increasingly widespread approach in academia (Graham, 2006). Bluic, Goodyear, and Ellis (2007) opine that the integration of technology into Instructional-learning course allows teachers and students to choose from wide variety of sources, tools, and learning activities (Chmiel, Shaha, & Schneider, 2016). Murday, Ushida, and Chenoweth (2008) administered a blended course approach. In this study, students cover all content, some testing, and communication practice online. Plus, they could have face-to-face meeting one hour a week with their classmates, and alone with their instructor for a shorter period. Results indicated overall satisfaction with the program among the blended course students than among those in the conventional language classes.

Instructional-learning field becomes blended when provides advantages over only conventional or virtual courses. Garrison & Kanuka (2004) confirmed the potential of BL in transforming the courses by giving students more responsibility, control, independence.

METHOD

Participants

The participants of this study were 100 students of Flavarjan *Azad University* from the field of Biology, who enrolled to pass EAP as an obligatory course in spring semester. An English Reading Proficiency Test (ERPT) was run to select students in an intermediate level. Based on the results of pretest 72 students with standard deviation from (-1 to +1) of the mean were selected. According to learning style questionnaire (VARK), students were divided into four groups to receive their lessons based on their learning styles. Three experimental groups (Visual, Aural, and Read and Write) and one control group (Kinesthetic) were assigned. All of the participants were native speakers of Persian.

The course was designed into two parts, face-to-face components and online components. Further, online components of the course created a situation for learners where it was possible for them to interact with teacher after class through an online tool (Telegram) and receive special drills depending on their own learning styles.

Instruments

A multiple choice pretest consisting of five reading passages and 20 test items was used to measure the knowledge of students before the treatment. Students had to choose three passages out of five passages and answer 12 test items. Every item had 1 point and students who got 6 to 11 were selected as an intermediate level' students. The posttest was parallel to pretest and consisted of three passages and 12 test items in order to measure reading knowledge after the treatment.

A learning styles questionnaire (VARK), (Visual, Audio, Read and Write, and Kinesthetic), was conducted whose validity and reliability had already been confirmed. The VARK questionnaire was primarily developed by Lincoln University of New Zealand in 1998. It consisted of 16 multiple choice items and aimed to find out something about individual's preferences for the way they work with information. The purpose behind such a test was to divide 72 intermediate students into four groups based on their learning styles in order to take their learning styles into account.

The most frequently used instrument for assessing burnout is Maslach Burnout Inventory (MBI) which created by Christina Maslach, & Susan E. Jackson, in 1981. It consists of three section including section A with seven items which shows exhaustion, section B with seven items that introduce depersonalization, and section C which consists of eight items and demonstrate personal accomplishment among students. All items are scored on a seven-point Likert scale, ranging from 0 *(never)* to 6 *(every day)*. Via this inventory, burnout is defined the presence of high scores on the emotional exhaustion and depersonalization components but as the presence of low scores on the personal accomplishment component.

Procedures

This study was conducted in Flavarjan Azad University. As it was mentioned in participant section, the population of the study was 100 students. First, a pretest (reading proficiency test), including five reading passages from English passages for biology students was administered to ensure learner's homogeneity and evaluate their progress and 72 students were selected based on deviation from (-1 to +1) of the mean. Those students, who got 6 to 11 point, were chosen for participate in this study.

After choosing 72 participants out of 100, a learning styles questionnaire was administered to find out student's preferred learning styles. This questionnaire consisted of 16 multiple choice questions and students had to answer to the questions based on their preferred ways they work with information. Next, the learners were assigned to four groups based on the quest results. Three experimental groups (Visual

with 18 members, Audio with 18 members, Read and Write with 17 members) and one control group (Kinesthetic with 19 members).

As for the treatment, every session, one passage was taught to students in all four groups. After each session, researcher sent some related information to the experimental groups based on their learning styles in Virtual area by Telegram in order to administer blended learning. For instance, Visual group received pictures, Audio group received voices, and Read and Write group received texts. The students in control group were taught conventionally in class and received no extra information in virtual area.

After the experiment was done, a posttest was given to the four groups (experimental and control groups) to find out student's progress during the treatment. Finally, the researcher distributed MBI questionnaire among all four groups to understand the relationship between adopting DI in courses and student's chronic stress and burnout.

Data analysis

Data analysis was conducted in order to answer the research questions of this study, which are: 1) What learning styles do university students adopt for learning EAP reading comprehension? 2) To what extent is the DI in a blended instructional-learning environment applicable for teaching EAP reading skill? 3) To what extend does DI affect academic burnout among EAP students?

The present study, therefore, employed blended learning method to investigate the possible effects of utilizing differentiated instruction and also to investigate the learner's learning styles on students of EAP reading classrooms and their chronic stress and burnout. To this end, out of 100 EAP reading learners in Flavarjan University, 72 were chosen by the researcher based on the results of the pretest with deviation from (-1 to +1) of the mean and were placed into intermediate levels. All the students took the pretest (consisting of five passages and 20 questions), and after choosing intermediate levels' students, they were divided into four groups (three experimental groups and one control groups) by answering to the questions of VARK questionnaire. Three experimental groups were exposed to both face-to-face classroom and online classroom based on their learning styles, while control group attended their regular classroom and were not exposed to the online class. Then, a posttest which was alike to the pretest in terms of content was given to the students in all the four groups. Finally, the four groups were asked to answer the burnout questionnaire intended to understand the relationship between administering differentiated instruction and academic burnout. In the following, the results of the statistical tests which were employed in this study will be presented.

Table 1. Descriptive Statistics for Choosing Intermediate Levels' Students

	N	Minimum	Maximum	Mean	Std. Deviation
Grade	100	2.00	12.00	8.7030	2.18881
Valid N (listwise)	100				

As it can be seen in Table 1, scores of 100 students were respectively between 2 to 12. Then, based on the deviation (S.D=2.18) from (-1 to +1) of the mean (M= 8.7), students who got the scores between 6 and 11 were picked up as an intermediate levels' students.

Table 2. Classifying Students into Four Groups Based on VARK Questionnaire

	Frequency	Percent
Visual	18	25.0
Audio	18	25.0
Read and Write	17	23.6
Kinesthetic	19	26.4
Total	72	100.0

Table 2 illustrates that out of 72 participators, 18 students (25%) had Visual style, 18 students (25%) had Audio style, 17 students (23.6%) had Read and Write style, and 19 of them (26.4%) had Kinesthetic style.

Table 3. The Results of Wilcoxon Signed Ranks Test for Visual Group

Posttest - Pretest	N	Mean Rank	Sum of Ranks
Negative Ranks	5[a]	10.20	51.00
Positive Ranks	8[b]	5.00	40.00
Ties	5[c]		
Total	18		
Z			-.388
Asymp. Sig.			.698

a. Posttest < Pretest   b. Posttest > Pretest   c. Posttest = Pretest

Table 3 depicts five posttest scores are less than pretest, eight posttest scores are more than pretest, and five posttest scores are same with pretest scores. The Z score is - 0.388 and Sig is 0. 698. So, Sig is less than 0.05 ($\alpha < 0.05$) and the differences between pretest and posttest are not significant.

Table 4. Results of Wilcoxon Signed Ranks Test for Audio Group

Posttest - Pretest	N	Mean Rank	Sum of Ranks
Negative Ranks	4[a]	11.25	45.00
Positive Ranks	9[b]	5.11	46.00
Ties	5[c]		
Total	18		
Z			-.035
Asymp. Sig.			.972

a. Posttest < Pretest   b. Posttest > Pretest   c. Posttest = Pretest

Table 4 illustrates that four posttest scores are less than pretest, nine posttest scores are more than pretest, and five posttest scores are same with pretest. Z score is – 0.35 and Sig is 0.972 (α> 0.05). Thus, comparing pretest and posttest revealed that there are no significant differences between scores and administering DI had not considerable effect on participator in Audio group.

Table 5. Results of Wilcoxon Signed Rank Test for Read and Write Group

Posttest - Pretest	N	Mean Rank	Sum of Ranks
Negative Ranks	3[a]	9.67	29.00
Positive Ranks	8[b]	4.63	37.00
Ties	6[c]		
Total	17		
Z			-.363
Asymp. Sig.			.717

a. Posttest < Pretest   b. Posttest > Pretest   c. Posttest = Pretest

As it shows in Table 5, three posttest scores are less than pretest, eight posttest scores are more than pretest, and six posttest scores are equal to pretest. Z score is – 0. 363 and Sig is 0. 717 (α > 0.05).

Table 6. Comparing Pretest and Posttest scores for Kinesthetic Group

Posttest - Pretest	N	Mean Rank	Sum of Ranks
Negative Ranks	15[a]	10.47	157.00
Positive Ranks	3[b]	4.67	14.00
Ties	1[c]		
Total	19		
Z			-3.129
Asymp. Sig.			.002

a. Posttest < Pretest   b. Posttest > Pretest   c. Posttest = Pretest

Table 6 describe that 15 posttest scores are less than pretest, three posttest scores are more than pretest, and one posttest score is equal to pretest. Z score is – 3.129 and Sig is 0.002 (α< 0.05).

Table 7. Classifying Three Symptoms of Academic Burnout (Exhaustion, Depersonalization, and Personal Achievement) between Four Groups of the Study

		N	Minimum	Maximum	Mean	Std. Deviation
Visual	Burnout	18	1.00	27.00	10.8889	7.21835
	Depersonalization	18	.00	22.00	12.4444	6.16653
	Personal Achievement	18	16.00	47.00	33.8889	9.62160
Kinesthetic	Burnout	19	3.00	31.00	14.6842	7.19608
	Depersonalization	19	4.00	37.00	15.6316	7.63188
	Personal Achievement	19	13.00	48.00	31.5789	9.53541
Audio	Burnout	16	1.00	36.00	11.3750	8.95079
	Depersonalization	16	2.00	36.00	17.1250	8.01561
	Personal Achievement	16	10.00	47.00	31.3125	9.78242
Read and Write	Burnout	17	.00	26.00	13.6471	7.33946
	Depersonalization	17	3.00	26.00	12.1176	6.18347
	Personal Achievement	17	.00	48.00	30.7059	13.68286

Table 7 depicts that the lower rates of Burnout (Exhaustion) is related to the Visual group (M=10.88) and the higher rates of Burnout (Exhaustion) is related to Kinesthetic group (M= 14.68). The lower rates of Depersonalization is for Read and Write group (M= 12.11) and the higher rates of that is for Audio group (M= 17.12). Finally, the lower rates of Personal Achievement is related to the Read and Write group (M= 30.7) and the higher rates of them is related to the Visual group (M= 33.88).

Table 8. Final Results for Academic Burnout

	Frequency	Percent
Burnout	0	0.0
Non Burnout	70	100.0
Total	70	100.0

Generally speaking, as it is seen in Table 8, there is no significant sign of chronic stress and burnout among EAP reading students of this study. But according to table7, it is obvious that the higher rates of burnout (Exhaustion) are related to the control group (Kinesthetic) and the higher rates of Personal Achievement are related to the Visual group as an experimental group.

DISCUSSION AND CONCLUSIONS

Diversity in learning and importance of student's preferences in learning in blended context are some elements that most of teachers try to consider in order to use technology in their classrooms. Previous studies demonstrate the importance of applying different instructions in the case of helping teachers to meet the needs of students who find L2 learning challenging, but there is little research about using DI in EAP reading compass. Therefore, this study was an attempt to investigate the importance of administering DI on Iranian EAP reading in blended context.

One of the purposes of this study was to answer the first research question: What learning styles do university students adopt for learning EAP reading comprehension?

Based on the results of this study for Iranian EAP reading learners who answered to the VARK questionnaire, out of 72 students, 18 students (25%) had Visual style, 18 students (25%) had Audio style, 17 students (23.6%) had Read and Write style, and 19 of them (26.4%) had kinesthetic style.

Another goal of the current research was to investigate the second research question: To what extent is the DI in a blended instructional-learning environment applicable for teaching EAP reading skill?

Considering the second research question, the results of present study show that comparing pretest and posttest scores after applying DI on three Experimental group (Visual, Audio, and Read and Write) in blended context had not significant effects on improving EAP learners reading comprehension ($\alpha> 0.05$).

In contrast, compering pretest and posttest scores for control group (Kinesthetic) depicted that because students just received their lessons in usual way (traditional classes) and had not any differentiating in learning their posttest scores reduced explicitly in compare to their pretest scores (α<0.05).

The final research question that this study tried to find out an answer for that is: To what extend does DI affect academic burnout among EAP students?

The results of this study indicate that there was no significant sign of chronic stress and burnout among EAP reading students of this study, but according to the three symptoms of burnout in Burnout Questionnaire, it is obvious that the higher rates of burnout (Exhaustion) was related to the control group (Kinesthetic) and the higher rates of Personal Achievement was related to the Visual group as an experimental group.

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