

The Effect of Video Technology on Shiraz University Medical Students' Writing Self-efficacy

Fereshteh Dehghan¹, Nasrin Shokrpour^{2*}, Laleh Khojasteh³

1. Department at English, Sepidan Branch, Islamic Azad University, Sepidan, Iran

2. English Department, Shiraz University of Medical Sciences, Shiraz, Iran (Corresponding Author)

3. English Department, Shiraz University of Medical Sciences, Shiraz, Iran

Abstract: The current study investigates the effect of video technology on writing self-efficacy. The dependent variable in this research is writing self-efficacy and the independent variable is video technology. This research is experimental in nature and sixty three students, both male and female, participated in this study. The population of the study was the medical students of Shiraz University of Medical Sciences in Iran. They were divided into two groups. The treatment group consisted of 31 students and the control group 32 students. The questionnaire used in this study was adapted from Donald O. Prickel's research (1994) and was scored based on the Likert scale for the writing self-efficacy. The data were gathered in a Pretest-Treatment-Posttest design. The results indicated that there was a positive relationship between video technology use and the students' writing self-efficacy. However, there was no difference between male and female students' writing self-efficacy.

Keywords: video technology, self-efficacy, writing self-efficacy.

Introduction

Learning a second/foreign language is a complicated activity which includes many aspects, like applying a curriculum, learning process, methodology of teaching, and the main skills of listening, speaking, reading, and writing (Rubin, 1987). As Graham and Perin (2007) explain, writing is one type of communication and association between the two sides (the one who writes and the one who reads) in which the ideas of the writer are presented in the context. When writing is involved, it is thought that it can be regarded as a twisted interaction on devious communication. And it is precisely accomplished via texts. There are various reasons which justify the essentiality of writing. First of all, writing skill is regarded as one necessary component for the learners' success in their educational life. These days' writing is one of the major forms of assignment. This is due to the fact that students' competency can be observed through their writing performance (Graham & Perin, 2007). Consequently, writing ability has a great importance and is one of the goals of the students in almost all areas of study considering higher education (Hovland, 1949). It is important to have effective writing skills not only in higher education, but also in work situations. Individual's ability in writing a text is thought to be

the only best sign of success in the first year of university (Kieft, Rijlaarsdam & Van den Bergh, 2006). Moreover, it can be due to the social practices in academic writing which is considered the most crucial one. Speaking of social communication in the academic environment, writing is regarded as the writer's identity which can be constructed, dealt with and made (Canagarajah, 2002). So writing is an important skill; however, learners encounter so much difficulty in it. According to Hamp-Lyons and Heasley (2006), one of the most problematic skills for second language (L2) learners is writing. Among the four main skills of any language, it is believed that writing is the last skill which both native speakers and language learners acquire. As Richards and Renandya (2002) claimed, writing process involves different abilities among which some are never thoroughly achieved by some learners even when the writing language is students' native language.

Writing Self-efficacy

Based on Bandura's (1986a) description of self-efficacy, it is one's skill to do a certain act with the purpose of getting to a particular result. He further claims that one's behavior which is influenced by self-efficacy can affect an individual's academic success. A number of studies have provided support for Bandura's claim and revealed the impact of self-efficacy on not only academic achievement, but also on writing achievement (e.g. Lane & Lane, 2001; Lane, Lane & Kyprianou, 2004; Pajares & Johnson, 1996; Pajares & Valiante, 1999; Shell, Murphy, & Bruning, 1989; Shell et al., 1995). It is worth mentioning here that in the present study self-efficacy is the learners' understanding of their own ability to write paragraphs in English. Generally speaking, human success and personal welfare in several aspects can be enhanced by efficacy (Sheng-Chau & Chin-Chung, 2010). There is a direct positive relationship between perceived self-efficacy and goal setting. In other words, if the perceived self-efficacy is stronger, the goals people set for themselves are higher and they perform and accomplish their goals better. Self-efficacy is a sub-set of self-concept (Sheng-Chau & Chin-Chung, 2010). A fact noted by Eng (2006) is that students who have a strong feeling of becoming a decent author have a stronger tendency towards putting more effort in their writings and insist more on handing in a qualified writing; therefore, it is evident that a high self-efficacy perception can enhance the writing quality improvement, compared to low self-efficacy which can lower its quality. Bandura (1977a) highlights that low self-efficacy results in less effort on the tasks people are performing; therefore, they may easily give up while they encounter difficulties, and this in turn influences how much an individual attains in his or her life. Thus, in order to help the learners to estimate their academic self-efficacy's level during a particular acquisition period is important (Bandura, 1986b; Schunk, 1985; Zimmerman & Martinez-Pons, 1990). It is necessary to measure someone's self-efficacy in order to find out the person's application and choice of methods, according to the Bandura's theory (Zimmerman & Martinez-Pons, 1990). Estimating such self-efficacy beliefs will enhance instruction and evaluation practices for adult learners (National Institute of Education, 1984).

Video Technology

Recently language instructors have used different quality teaching materials and aids in EFL classes to guarantee maximum learning of students and increase the learners' command of language skill. Language educators and scholars have carried out abundant studies which concluded that video clips can be an inseparable section of the curriculum since movies expose the learners to the language spoken and the culture existing in real life settings. In addition, it has been found that films which appeal to learners can have a positive impact on their motivation to learn (Sommer, 2001; Kusumarasyati, 2004; Luo, 2004). Blasco (2006) hold the idea that it is crucial to utilize movies in language classes in order to incite the thinking processes and learners' attitudes towards learning and teaching. Other scholars have claimed that in classes in which showing a movie was an inseparable part of learning and teaching process the learners were more able to maintain and remember information and they were more content with the learning experience (Lesser and Pearl, 2008; Casper et al., 2003; Butler, 2009). Currently, application of movies and videos in EFL teaching and learning courses has been an important subject which needs to be taken into account. Watching a video segment as a means to teach English is fruitful since it includes authentic materials and the language is used properly in its function as a medium of interaction (Kerner, 2008). Tuncay (2014) believed that movie is a practical mode of direct shared experience. In addition, since video demonstrates English in the real context, not an artificial one, it is a more dynamic means of EFL teaching compared to pictures and audio recording (Canning-Wilson, 2000). Moreover, it is a refreshing learning experience for learners to utilize video in teaching EFL, especially for those who feel English vocabulary and grammar drilling exercise are boring because it can reveal a more realistic language learning process which cannot be found in the textbook-based language teaching (Canning-Wilson, 2000). Despite this fact, because of the abundance of videos in the internet, the teacher needs to choose those which are in agreement with the curriculum (Tuncay, 2014). Canning-Wilson (2000) conducted a large scale survey and the results revealed that the use of videos for learning language is quite appealing for learners. Based on the review of literature and the need to investigate the effect of videos on writing self efficacy, in this study, two research questions are posed:

1. Does video technology affect the medical students' writing self-efficacy?
2. If so, is there any difference between male and female medical students' writing self-efficacy?

Methodology

This study utilized an experimental approach to compare two experimental and control groups to see if applying video technology in writing classes can enhance Shiraz University of Medical Sciences students' writing self-efficacy.

Population and sampling

The target population in this study was all medical students (63), collectively referred to as EFL students studying in the 5th semester who had enrolled for the writing course at Shiraz University of Medical Sciences in the spring semester. The reason behind choosing this population was that these students are among the EFL university students who are required to take writing courses as a compulsory 3-unit course before their graduation from medical university.

The researcher applied convenient sampling through which 63 medical students were selected from two classes with the same instructor (researcher's supervisor). The participants' age range was 20- 30 and consisted of both genders. With respect to the experimental nature of the study, no interference between the result and the environmental factors which can influence the nature of the research and alter the results was so essential. Thus, the researcher did her best to be very careful and cautious regarding such factors.

Instrument

The questionnaire used for determining the students' writing self-efficacy was adapted from Donald O. Prickel research in 1994. The aim of his study was to examine the writing self-efficacy development scale for adult writers and its application in correlational analysis. The questionnaire consisted of 25 questions according to the Likert scale which consists of such options as Strongly Disagree, Disagree Unsure, Agree, and Strongly Agree. Since this questionnaire was in English, the researcher used back-translation method to translate it into Persian language. First, the questionnaire was translated into Persian by a competent translator. Then, the Persian version of the questionnaire was again translated into English by another professional translator without reference to the original text and then the two English versions of the questionnaires were compared with one another. It is worth mentioning that although this translation is considered a strict translation in which the translator usually paid attention to the word by word translation of a text rather than intended concepts which the questions were supposed to measure, the researcher consulted 3 professionals to make sure that for each question the intended concepts were actually captured.

Procedure

Treatment Group

To see if there is a relationship between using video technology in writing classes and students' writing self-efficacy, in this group (31 students, 17 males and 14 females) the writing instructor used instructional videos every single session for the whole semester which consisted of 17 weeks and each session lasted one and half hour. Instead of explaining everything by herself, the writing instructor used educational videos downloaded from Youtube and Coursera online

courses to, for example, explain about 4 types of sentence structures including simple, compound, complex and compound complex. Other grammatical points explained in this way were common mistakes in writing such as fragments, run-on sentences and comma splices, etc. Other videos were more from a writing nature including paragraph structure, argumentative paragraph, process paragraph, compare and contrast paragraph, etc. It is worth mentioning that since in this university students are not allowed to use dictionary (hard-copy or electronic) while sitting for the exam, during the course they needed to increase their vocabulary knowledge which enables them to be competent enough to write a paragraph or an essay for the midterm or final exam without any dictionary. Hence, another kind of video used in the writing classes of these students was topic-related videos which were shown to students any time they had to write a paragraph or essay in the class. For example, if they had to compare and contrast anorexia with bulimia which are two eating disorders, the writing instructor would first show one or two videos in this regard and asked students to take a note while watching; only then, they were asked to write about that specific topic. Other topic-related videos were effects of smoking, obesity, air pollution, how to become a good doctor, alternative medicine, etc.

Control Group

The control group consisted of 32 students (11 male and 21 female) who were supposed to have a routine writing class. It means that, they also attended the class for 17 weeks and they wrote on the same topics as the other group. For this group, the traditional approach in teaching writing was applied. The students were taught how to deal with grammatical structures and how to come up with first simple sentences and then move to more complex structures in terms of sentence and paragraph. Although the instructor used Power point for some sessions to teach not only grammatical points but also writing-related topics, she did not use any videos in the class. The topics these students had to write on both inside and outside classroom were more or less the same because a list of topics had been given to all writing instructors at the beginning of the course to facilitate the instructors' choice of topic. Even when students had to write a paragraph inside the class, the students were asked to use their own background information to write about that particular topic.

Data analysis

In this study, various statistical methods were applied, using SPSS, version 20. For the purpose of dealing with both aims, “to investigate whether video technology has any effect on writing self-efficacy” and “to investigate if there is any difference between male and female medical students' writing self-efficacy”, t-test was used. The reason was that, for a research with two conditions, in this case experimental and control groups, an experimental design is administered to compare the two conditions. Furthermore, the t-test gives the researcher the ability to conclude if the mean score of the students in one condition actually differs from that of another condition.

Results

Descriptive statistics in this research included mean, standard deviation, minimum and maximum scores. The number of subjects, mean, standard deviation in the sample for all the variables are shown in Table 1.

Table: 1
Mean, standard deviation, minimum and maximum scores of self-efficacy

Num	Maximum score	Minimum score	SD	mean	Statistical indicators		variables
					group	stage	
31	96.00	58.0	11.1	78.8	treatment	Pre-test	Self-efficacy
32	107.0	62.0	12.4	79.9	control		
31	111.0	82.0	8.2	96.3	treatment	Post-test	
32	123.0	62.0	13.0	86.3	control		

The results of both groups indicated that the mean score in the treatment group was more than the control group and according to the significance (0.000), we can conclude that P-value was lower than 0.05. So the first hypothesis is confirmed; therefore, video technology does affect the students’ writing self-efficacy. The results are shown in Table 2.

Table: 2
Comparison of the experimental and control groups’ mean scores

Sig	T	Std. Deviation	Mean	N	Variable
.000	4.4	12.5	17.5	31	Treatment
		6.4	6.4	32	Control

Also, the table below shows the gender difference in students writing self-efficacy. The means of both groups indicated that the mean score of the male group was the same as the female group. According to the significance which is .815, P-value was higher than 0.05. So, it can be

concluded that there was no any difference between the students’ writing self-efficacy with respect to their genders. The results of the t-test are shown in Table 3.

Table: 3

Comparison of writing self efficacy in both genders

Sig	T	Std. Deviation	Mean	N	variable
.815	.391	11.1	12.5	28	Male
		11.5	11.3	35	Female

Discussion

The first research question of this study was: “Does video technology affect medical students’ writing self-efficacy?” There was an attempt to find out the relationship between using video technologies and the medical students’ writing self-efficacy. The result of t-test was indicative of a relationship between video technology and writing self-efficacy. As Allen, Kate and Marquez (2011, p 1-5) stated, “Visual aids impact and add interest to a presentation. They can create excitement. Visual aids enable students to use more than one sense at the same time. One picture can elicit unlimited words”. So, variation can be brought into the classroom through various visuals. These different visual tools enhance the learners’ focus on to the topics. When different pictures related to the topic of the lesson are used in a class, it makes the class environment livelier and provides the learners with some outlines of the topic. In the same line, Mathew and Alidmat (2013) realized that audio-visual materials will make lessons easily understandable. Compared to descriptive reading materials, images a learner sees on the screen can be comprehended and remembered easier. In this way, students believe they can recall the information for a longer time, because of the use of audio-visual props. Harmer (2001) also stated that utilization of pictures in the classroom increases the learners’ interest in the lesson. He drew out attention to the fact that recent textbooks and newspapers are intentionally designed in a way to seize the readers’ interest. Also, images enhance the text by providing readers with a view of the outside world. As a result, having something visual on the lesson is always fruitful and practical for the learners. Psychologists have proven the positive impact of movies on the learners’ cognitive learning in the classroom. As Blasco. (2006) stated, films play a crucial role in learners’ attitude and their reflective process provoking. Other scholars (Lesser and Pearl, 2008; Casper, 2003; Butler, 2009) also claimed that when movies become an integral part of a language teaching class, the ability of learners to keep and remember information along with their general contentment with the learning experience gets significantly higher. According to

Champoux (1999), films provide learners with not only cognitive but also affective experiences in the classroom. Another point regarding the film scenes is that they can be so useful concerning the learners' analytical skills' enhancement and it can change their perspective since it enables them to match theories with realistic situations. In agreement with the above-mentioned points, Fotos and Browne (2004) declared that a normal multimedia language program made it possible for the students to carry out a reading activity in the L2, study grammar and pronunciation about the reading, apply a dictionary, "access support materials and translations in the students' first language (L1), view a movie of the reading, and take a comprehension test on the reading content, receiving immediate feedback, all within the same program" (p. 6).

The second research question was: "Is there any difference between male and female medical students' writing self-efficacy?". T-test was administered, showing that there was no difference between the students' writing self-efficacy with respect to their genders. Many investigations have been done on the relationship between gender and using video technology. As a result, the findings of this research question can be compared to many studies. But to the best of our knowledge the findings of many of these studies are in contrast with the results obtained in the current study. Many of these researches have reported that females are better than males (Camarata & Woodcock, 2006; Gibb, Fergusson, & Horwood, 2008; Marks, 2008; Pajares & Valiante, 2001). Moreover, some other studies have been done regarding both genders, indicating that male students are better than females (Kamari, 2012).

Conclusion

The results indicated that video technology can help the improvement of the writing self-efficacy of students. Many educational planners have realized how useful video as an instructional tool is. So, they have designed materials in which video technology is included to be applied in the classroom. In English as a second or other language teaching fields, video has an intimate association with listening skills (Mueller, 1980; Secules, Herron, & Tomasello, 1992; Baltova, 1995). According to some ESL researchers, video's effectiveness is because of its ability to present the learners with a rich context of authentic conversations (Geddes & White, 1978; Tomalin, 1987; Altman, 1989). Moreover, this research couldn't find any significant relationship between the gender and writing self-efficacy of the students.

Pedagogical Implications

Regarding writing skill, some researchers have claimed that the use of video technology in EFL writing classes is important. Like a writing skill practice, video clips, films, short films, and series are best applied in Note taking-Note making practices. This gives the opportunity to watch, listen, think, analyze and write the language. Movie extracts or other kinds of animation also provide the students with a background to or specific instances which might be applied as learning activities. They aid in acquiring the major skills of listening, speaking, writing and reading. Such activity can also lead to creation of a series of communication activities directed

by the teacher. It is obvious that “because of considerable student’s interest in movies, learners always seem to benefit from watching the trailers that appeal to them and discussing their thoughts afterward” (Heffernan, 2005).

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