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The Role of Audio-visual Aids in General English Classes at Medical University: Reading Comprehension, Attitude, and Motivation*

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Abstract
The general consensus on the invaluable contributions of audio-visual materials based on cognitive theory of multimedia learning (CTML) to enhancing the quality of language classes has turned them into indispensable tools which teachers utilize for more effective teaching of different language skills. The primary aim of this study was to explore the effect of audio visual aids on reading skill at university level. The secondary aim was to find out if this change in materials could have any impact on the motivation and attitudes of the students toward English learning. To this end, this quasi-experimental study adopted a pre-test post-test research method. A total of 256 General English university students were divided to experimental (n=184) and control (n=81) groups. The experimental group received audio-visual aids as the treatment while the control group was taught by a conventional text-based method, commonly practiced in General English classes at Tabriz University of Medical Sciences (TUMS). The reading section of preliminary English test (PET) and Gardner's attitude and motivation test battery (AMTB) were used for data collection. The results of independent samples t-test and Mann-Whitney tests revealed that the students provided with audio-visual materials obtained greater reading outcomes and also showed more positive attitudes and higher motivation toward English learning. Thus, our research revealed that the higher productivity and livelihood of reading classes can be tangible even in the in the narrow space of a single university semester, and we therefore recommend audio-visual tools should be employed more extensively at university to heighten the quality of their teaching and students' reading comprehension.

Keywords: *Attitude, audio-visual aids, motivation, multimedia based education, reading comprehension*

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Introduction

Learning English as a lingua franca and as the language of science is one of the most important educational requirements for university students in many countries as well as Iran (Dougill, 2008; Seargeant, 2009; Tehran Times, 2012). Nevertheless, since the quality of teaching English in schools has yet to improve significantly, a large number of students are compelled to take English courses in private language institutes to achieve the required level of English fluency and proficiency (Zarei, 2018). Despite the fact that numerous students participate in English courses prior to entering university, there are great difficulties in learning and using English language correctly and appropriately among many college students in Iran (Davari & Aghagolzadeh, 2015).

As far as teaching English at Iranian universities is concerned, it is worthwhile mentioning that although new English teaching methodologies highlight the significance of focusing on all four skills as the most successful way of learning a language (Spence & Liu, 2013), a major concern of current educational system is still the reading competency of university students (Nafissi, Karimi, Vosoughi, 2020) even though the students are becoming increasingly uninterested in reading the assigned materials (Isakson, Isakson, Plummer, & Chapman, 2016). In Iranian higher education system, the reading skill is often taught by having the students read texts of the teacher's choice and answer some comprehension questions. As multiple studies revealed, university reading classes are not adequately appealing for students who are often bored with the materials and the way they have to handle them (e.g. Danckert & Allman, 2005). As Kruk and Zawodniak, (2018. P. 177) stated, "boredom can be defined as an unpleasant or painful affective state, drive or psychological experience that makes an individual disengaged from what goes on around them, which entails a combination of dissatisfaction, disappointment, annoyance, inattention, lack of motivation to pursue previously set goals and impaired vitality". Consequently, boredom, as an affective factor, can influence the language learning process significantly,

leading toloss of interest and difficulty concentrating on a certain classroom activity (Arnold & Brown, 1999; Fisher, 1993).

Based on wealth of empirical evidence, in order to cope with this negative feeling, increase students' motivation, and enhance the quality of a university class that focuses on English reading, a number of strategies can be utilized (e.g. Holahan, Moos & Schaefer, 1996; Nett, Götz, & Daniels, 2010). One such strategy that has proved to be effective might be to resort to multimedia based education (MBE), employing audio-visual aids in classroom (Bitter & Pierson, 2002). These aids are instructional materials utilized to inspire learning and make it less boring and more motivating for students (Smaldino, Lowther & Mims 2018). Nowadays, with this fast growing digital world, several types of audio-visual devices are available, including projected opaque materials, tape recording, filmstrips, slides, flashcards, television educational series, PowerPoint slides, educational DVDs, and various online materials such as YouTube (Aggarwal, 2009).

Theoretical background

The goal of multimedia based education is to enable teachers to develop appropriate lesson plans and present the lesson simply, effectively, and easily to assist students in better understanding and learning; Mayer (1997, 2002, 2009, 2020), as the main distinguished figure in MBE, believes that multimedia based education, also, gains and retains students' attention, makes classes motivating with more interaction, reduces boredom among students, and, finally, focuses on student-centered teaching approach. Due to the fact that learners use more than one sense while being exposed to audio-visual materials in classroom, a more permanent learning occurs in their brain (Mayer, 1997). To put it in another way, "people learn more deeply from words and pictures than from words alone" (Mayer, 2009, p. 47) which is the multimedia learning premiere principle. Nonetheless, in agreement with Mayer (2009), simply compounding pictures and words is not an efficient way to get benefit from multimedia learning. Utilizing media in instruction in the light of how human mind works is the cornerstone for Mayer's

cognitive theory of multimedia learning (CTML). The term cognitive pertains to perceiving and knowing, and cognitive scientists attempt to recognize mental processes such as understanding language, learning, perceiving, remembering, and thinking (Stillings, Weisler, Chase, Feinstein, Garfield, & Rissland, 1995).

CTML is based upon the notion that students endeavor to build meaningful associations between words and pictures when being taught both of these elements together (Mayer, 2009). As asserted by this cognitive theory, one of the principle aims of multimedia instruction is to motivate the learner to construct a coherent acquired material representation from the presented content, and, then, to build new knowledge. Adhering to Mayer (2002) and Sordan, (2012), the backbones to cognitive theory of multimedia learning are various cognitive theories comprising Baddeley's (1986) model of working memory, Paivio's (1986) dual coding theory, and Sweller's (2010) theory of cognitive load.

In concert with CTML, considering the effect of audio-visual material and the learners' brains' capacity in learning while being presented with multimedia material, the current study aims at investigating the effect of this new approach in teaching General English reading to university students through carefully chosen text materials with relevant listening tracks as audio and short educational but authentic movies as videos. Simultaneously, to further explore implementing CTML in English reading comprehension classes at TUMS, the present study scrutinizes these students' attitudes toward this new approach and its possible effects on their motivation. Attitude is significant because it is not only a key element to underlie an individual's behavior and her/his mental state including beliefs and feelings (Gardner, 1985) but also it is assumed as an expressed psychological disposition by measuring a certain matter in degrees of favor or disfavor (Eagly and Chaiken, 1998).

Tesser (1993) argues that attitudes might be changed as entities experience novel things or approaches; however, a snapshot of attitudes toward an issue can be vital since they can play "adjustive or utilitarian,

ego-defensive, value-expressive, or knowledge functions" (Katz 1960, p. 170). By definition, adjustive function relates to avoidance predispositions or general stance; ego-defensive function deals with protecting self-esteem; value-expressive function pertains to expressing beliefs; and knowledge function is responsible for organizing and understanding new concepts. Attitudes can be evaluated through direct and indirect measures (Madden & Martin, 1979). Accordingly, different instruments including interviews or questionnaires have been utilized to gather attitudinal information.

Empirical studies

Although the bulk of research in the area has examined the implication of audio-visual aids in classrooms, either English classes or other courses, its exploration in university English classes is not widespread. Also, there has been a large body of research exploring students' attitudes toward learning language as one of the main predictors of success in acquiring English. Some of the prominent research studies in aforementioned realms are reviewed below. Acha (2009) and Sordan (2005), investigating the effects of MBE on students' learning, perceived that such a strategy would be successful and the students would gain positive attitude toward their learning if the teacher could raise their attention, maintain it and use a combination of multimedia and appropriate teaching methodology. In a similar vein, Mayer, Heiser and Lonn (2001) concluded that auditory and visual elements are highly practical when distinct types of media are supporting one another complementarily rather than when unnecessary images and sounds are offered only for entertaining, which might bring about cognitive overload as well as bewilderment that could inhibit learning instead of boosting it.

Ellis (1994) observed that negative attitudes hinder learning a language; similarly, if learners are of the opinion that they are not able to learn a new language with flying colors, this belief per se would become an obstacle in the way of learning (Lennartsson, 2008).However, negative attitudes can be changed and replaced by positive ones and enable the learners to accomplish their learning goal

(ibid, 2008). As far as the effect of audio-visual aids in teaching process on students' attitude is concerned, Ainsworth (1999) and Sweller (2005) indicated that multimedia learning, compared to a single medium learning, can result in better educational achievement if the instructor is choosing media which can provide well-structured information, present more information at the same time, offering more than one representation to strengthen memory, and persuades active processing.

Other studies (Astleitner & Wiesner, 2004; Shuell & Farber 2001) found a positive significant correlation between utilizing MBE in teaching academic reading and student satisfaction and motivation. Yarbrough (2001) surveying the attitudes of over 700 university students toward the utilization of multimedia in twenty courses in among various academic disciplines revealed that students were extremely positive regarding this issue;however, female students were less positive than their male counterparts.

With respect to investigations on English reading classes, the correlation between reading comprehension and attitude is well documented (e.g., Bastug, 2014; Qian, 1999, 2002; Shen, 2008). Mahato (2016) suggested that learners' attitude toward reading, including their interest feeling, and motivation leads the learners to decide to read or ignore to read a text. Likewise, Oostdam, Blok, and Boendermaker (2015) emphasized that while negative attitude might inhibit learners from doing their best and practicing more for reading their texts, positive attitude enhances their motivation for reading. Isakson et al. (2016) refer to attitude as a multi-dimensional parameter entailing cognitive, affective, and behavioral aspects, all obtained by experience including attitudes toward academic reading as well.

Exploring the effects of MBE on reading comprehension test scores, test anxiety, and retention in reading short stories in English among college students with experimental and control groups, Lee, Lee, Liao, and Wang (2015) witnessed unchanged reading comprehension scores but lower reading test anxiety, and enhanced reading short-term and

long-term retention after four weeks in the experimental group (benefitted from MBE) compared to the control group.

Although audio-visual aids have been utilized in some schools and many private language institute classrooms by far (Agnew & Kellerman, 1996; Rezaie, & Barani, 2011; Yazara, & Arifoglu, 2012), they are not commonly employed in university General English (with emphasis on reading) classes in Iran, particularly, at TUMS, the context of the present study. Henceforth, the current study attempted to explore the utilization of MBE in General English classes and its probable correlation with enhancing reading comprehension ability among participants. Furthermore, since there is scant literature on this issue, in order to strengthen the findings, the participants' motivation and attitudes toward implication of this new technique in their General English classes are being surveyed as well. Considering the significance of motivation and attitude and their potential functions and association with behavior, delving into these students' attitudes can offer an illuminating picture of what they experience or feel as they encounter a new approach of learning (audio-visual aids) in their otherwise monotonous and somehow boring reading classes.

Method

Participants

Initially, a total of 386 first-year students from TUMS, voluntarily participated in the current study, but those who did not take the post-test, or did not complete the questionnaire satisfactorily were excluded from the study; therefore, 265 participants in total, 119 males and 146 females, with the age range of 19 to 24 were included in our final sample. They were from the faculties of dentistry, medicine, para-medicine, nursing and midwifery, rehabilitation, and health management. All the participants had the experience of studying English in junior high school and high school, and they were required to take a compulsory 3-unit general English course in the first or second semester, which was held twice a week with each session lasting 1.5 hours. The participants comprised a wide range of monolingual and bilinguals all of whom were learning English as a foreign language.

Instruments

The instruments employed for data collection in this study are listed and described below:

Preliminary English test. The first instrument used for data collection was the reading section of PET to determine the participants' English reading ability at the beginning and also at the end of the study and to make sure that both experimental and control groups were homogenous when we started the study. It is developed by Cambridge University Press, and corresponds to level A2-B2 of the Common European Framework (CEFR). Therefore, we selected this language test to evaluate reading comprehension competency of the students who are generally placed at intermediate English level based on the subjective standpoint of the teachers and stake holders. PET is made up of three major sections covering all four language skills (Section1: Reading and Writing, Section 2: Listening, and Sections 3: Speaking). The Reading section, including underlying knowledge of vocabulary and grammar, includes 5 parts and 35 questions involving various tasks such as answering multiple choice questions, selecting descriptions which match different texts, and identifying true or false information.

Attitude/Motivation test battery. A modified and contextualized version of Gardner's attitude and motivation test battery (AMTB) in language learning was employed in the present study to compare the motivation and attitude of the participants in experimental and control groups at the end of the semester (our treatment). This is a widely used questionnaire whose validity was established by Gardner and MacIntyre back in 1993. The internal consistency reliability and test-retest reliability of the test were also reported to be 0.91 and 0.79 respectively (Gardner, 2005).

The original form of the questionnaire includes 104 items based on Likert scale, encompassing both attitude and motivation, each containing several subscales. However, the short form of the questionnaire including 65 items was employed in our study, and certain subscales e.g. the parental encouragement, language anxiety, attitudes toward English speakers were excluded based on the

considerations related to the participants, study context and objectives and focus of the study. For instance, being university students, the participants were all above 18, and thus it was considered inappropriate to include the items related to parental encouragement. Moreover, language anxiety variable was not the focus of the study, nor is it assumed to directly contribute to motivational factors, which means it could be excluded without undermining the conceptual model (Gardner, 2005). The subscales included in the questionnaire of the present study are presented in Table 1 alongside the number of related items and examples for each subscale. There was no neutral scale in this instrument. The items of the sub scales were presented at random, the same as the original instrument. Since certain items were positively worded and certain others negatively, 'strongly agree' and 'strongly disagree' were given 4 and 1, respectively in positively worded sentences while the points were reversed in their negative counterparts, i.e. 'strongly agree' received 1 while 'strongly disagree' received 4.

Table 1

The sub-scales included in attitude/motivation questionnaire

Number of Items	**Sub-scales**	**Example**
10	Attitudes toward learning English	I love learning English.
7	Attitudes toward English teacher	My English teacher is one of the most pleasant people I know.
10	Attitudes toward learning situation	I like my English class so much, I look forward to studying more English in the future.
10	Integrative Orientation	Studying English is important because I will be able to interact more easily with speakers of English.

8	Instrumental Orientation	Studying English is important because it will be useful in getting a good job.
10	Motivational Intensity	I actively think about what I have learned in my English class.
10	Desire to Learn English	I wish I were fluent in English.

In addition to the validity provided by the expert judgment and consultation of two professors in the field of TEFL, the concurrent validity of the questionnaire was also determined, using correlations between the original (104-item) and shorter (65-item) versions of AMTB at the piloting stage. The correlation coefficient (r = .98, p < 0.05) provided more assurance concerning its validity. Meanwhile, the reliability of the test, as measured through Cronbach alpha with 65 items in the present study, was found to be high (0.79).

Procedure

As our target group comprised intact General English classes at different faculties of TUMS, it was simply not possible to pick the participants on a truly random basis, allocating them to control and experimental groups. Thus, we randomly selected the faculty of dentistry and faculty of nursing and midwifery, assigning the students in general English classes of these faculties to our control group while the remainder of general English classes at other faculties constituted our experimental group.

On the first data collection session, the reading section of PET was given, as pre-test, to the participants who were required to answer 35 questions in 50 minutes. A computerized version of the test was employed so that we would be in a better position to manage the rather high number of participants. The treatment sessions in the present study were spread throughout the semester, consisting of 17 weeks, with two sessions held in each week. The materials taught for the experimental group comprised all 10 units of Upbeat, a general English textbook

compiled by the academic staff members at the English section of department of Basic Sciences. Every unit of the textbook consists of Vocabulary, Grammar, Listening, Writing and Reading sections. However, the most prominent feature of the book, also drawn on in the present study, was its Reading section which provides appealing audio-visual aids in the form of videos thematically well related to the reading texts, presented through narration, music and live pictures. The videos had been selected from the most renowned and up-to-date English textbooks available, e.g. World English, Headway, and Speak out. The videos were run for 5-8 minutes, accompanied by short exercises designed to enhance comprehension. Having watched the videos, the students did the exercises in groups and then they were given adequate time to read the related texts individually, answer the related questions and discuss them in class. However, the materials used in the control group was Active 2, a primarily reading-based book commonly used as reference for general English, taught through a rather conventional method; the reading passages were preceded by simple pre-tasks or very short related texts serving as warm-ups, after which the students were required to read the passages and answer the related questions and then discuss them in the class, as the students in the experimental group did. The level of difficulty of the texts employed for both groups was determined through www.textinspector. Com and www.duolingo.com websites, which put all of them at B1-C1 reading proficiency level according to the CEFR.

Finally, on the last data collection session, another computerized version of the PET reading section was given to the participants, and immediately after finishing that, they were also asked to complete the attitude and motivation questionnaire in about 10-15 minutes.

Data analysis

Using SPSS version 25, we analyzed the data both descriptively and inferentially. Descriptive statistics included mean and standard deviation of the participants' scores on both pre- and post-tests. Moreover, the inferential analysis regarding the first objective was done through independent samples t-test. However, a non-parametric

between-group test, Mann-Whitney, was utilized to examine the second aim of the study as the data obtained from the questionnaire constituted of ordinal measures rather than scale measures.

Results

Before conducting the main inferential statistical analysis, which was independent-samples t-test, on the obtained data, we first tested if our data met the underlying assumptions of normal distribution and homogeneity of the variances. The results of normality tests, Shapiro-wilk and Kolmogorov-Smirnov, are presented in Table 2 in which all sig. values are above the alpha level (p>.05) signifying that normality assumption is approved. In addition, in order to check the assumption of homogeneity of variances, a Leven's test was conducted, and the results showed that the variances for reading comprehension pre-test and post-test (p=.86 and p=.23; p>.05) were equal.

Table 2

The results of normality tests

		Kolmogorov-Smirnov[a]			Shapiro-wilk.		
	Groups	statistic	df	sig.	statistic	df	sig.
Pretest	Experimental	.088	184	.098	.974	184	.168
	Control	.095	81	.452	.973	81	.323
Posttest	Experimental	.087	184	.268	.982	184	.247
	Control	.086	81	.064	.980	81	.092

The primary objective of the study was to determine if there were significant differences between Experimental (+audio-visual) group and control (-audio-visual) group in terms of reading comprehension level. Firstly, in order to provide a tangible illustration of the participants' performance in reading comprehension pre-test and post-test, descriptive statistics, including the mean and standard deviation, are presented in Table 3.

Table 3
Descriptive Statistics

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Pre-test	Experimental	184	17.57	5.32	.393
	Control	81	16.57	5.18	.576
Post-test	Experimental	184	17.32	5	.369
	Control	81	14.82	4.52	.503

As shown in Table 2, some differences between mean scores of the experimental group and control group in both pre-test and post-test examinations are observable; however, the mean difference in post-test is bigger than that in the pre-test. In order to make sure whether or not these differences are statistically meaningful, two independent-samples t-tests were conducted, one on pre-test scores and the other on post-test scores, the results of which are shown in Table 4 and 5.

Table 4
Independent samples t-test for pre-test results

	Leven's test for Equality of Variances		T-test for Equality of Means					95% Confidence Interval of Difference	
	F	sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	.031	.861	1.423	263	.156	1.003	.705	-.385	2.39
Equal variances not			1.438	156.84	.152	1.003	.697	-.374	2.38

assumed									

As it is evident in the table above, no significant difference [t (263) =1.423, P=0.156> .05] was found between experimental (M=17.57, SD=5.32) and control groups (M=16.57, SD=5.18) in terms of pre-test scores. Therefore, it can be said with some confidence that the two groups displayed an identical performance on reading comprehension test at the onset of the study though the obtained mean scores slightly differed. In order to inferentially examine the two groups' performance following the treatments on the post-test, another independent samples t-test was employed, and its results are presented in Table 5.

Table 5

Independent samples t-test for post-test results

	Leven's test for Equality of Variances		T-test for Equality of Means					95% Confidence Interval of Difference	
	F	sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	1.40	.236	4.77	263	.045	3.098	.648	1.82	4.37
Equal variances not assumed			4.96	167.89	.037	3.098	.624	1.86	4.33

Unlike the results associated with the participants' performance on pre-test, we found a significant difference [t (263) =4.77, P=0.45< .05]

between experimental (M=17.32, SD=5) and control groups (M=14.82, SD=4.52) regarding the post-test scores. To put it simply, having compared the observed mean scores, we found that that the participants in the experimental group outperformed their counterparts in the control group after being provided with the treatments of this study. However, it is worth mentioning that Cohen's d which is the measure of effect size in t-test was calculated (d= .373), and it did not seem to prove a large effect of the treatment on the reading comprehension though it was found to be statistically significant.

To answer the second research question of the study which addressed the differences between the experimental and control groups in terms of the participants' attitudes and motivation toward English language learning, we utilized the nonparametric Mann-Whitney test with the results revealing the existence of significant difference (P=.000 <0.05). (Table 6).

Table 6

The Results of Mann-Whitney test regarding the difference in attitudes and motivation

Group membership	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Asymp. sig. (2-tailed)
Experimental	184	150.98	27781	4143	.000
Control	81	92.15	7464		
Total	265				

As the difference in the mean ranks in Table 6 demonstrates, the participants in the experimental group, receiving the audio-visual materials during the semester, had more positive attitudes and higher motivation toward English language learning in comparison to those in the control group.

Discussion

The main objective of the present study was to investigate the effect of utilizing audio-visual aid in General English classes on reading comprehension among Iranian university students at TUMS. Moreover,

students' motivation and attitudes toward application of this strategy were explored through a modified and contextualized version of Gardner's attitude and motivation test battery in language learning. The findings revealed that using audio-visual materials could effectively boost students' reading comprehension ability in experimental group. Besides, this strategy could influence students' attitude and motivation in the experimental group positively.

The findings are consistent with Lee et al. (2015), Mayer (2020) and Rasul, Bukhsh, and Batool (2011) in that their studies, though different in scope and context, also indicated that MBE plays a significant role in instruction and makes it more effective, motivating both teachers and students. Similarly, the findings are partially in line with Mayer (2009 & 2020) who observed that students generated about 65 % more correct answers on a reading comprehension test if they read a text with captioned illustrations placed near the corresponding words than did students who simply read the text. Likewise, Mayer (2009 & 2020) indicated that when texts in reading comprehension tests are accompanied by corresponding animations, students can answer the test questions more correctly. Mayer (2020) relates this phenomenon to cognitive theory of multimedia learning in that students who are exposed to two different modes as multimedia or, for example, illustrations or animated movies as well as texts are able to construct two different mental representations; visual and verbal models and then they can create associations between them, which help them with further reading. This notion can explain why our participants in the experimental group got higher reading comprehension scores in post-test after receiving MBE treatment during the semester.

However, we have to be cautious reporting the observed positive effects of auditory and visual components on the students' reading comprehension as the effect size, though positive, was not particularly large and the difference between the test scores of control and experimental groups was less than what we anticipated. This might be due to several factors, including the limited number of sessions for the treatment that had to be conducted within the limits of a single semester,

the presence of too many students in our classes, mostly exceeding 40, and the fact that all the class time could not have been allotted exclusively to the reading skill. On the other hand, this might well have resulted from what some have considered as the drawback of using audio-visual aids in language classes- that such aids might lower students' concentration and the learning outcome as a result.

This notion may be in concert with not proponents' point of view but opponents' views of implementing MBE in class as they do not largely support the idea of utilizing audio-visual aid in classroom. For instance, Sordan (2012), confirms that implementing multimedia learning in teaching learning process, in particular, computer-based training (CBT) and online learning have generated many new possibilities for learning with new techniques of delivering content, and encouraging learner-centered approaches through adding variety to teaching learning process and motivating students. Nevertheless, he rigidly reprimands those instructors who utilize visual and auditory elements liberally, only trying to bring excitement to the course and hold the learner's attention. Sordan (2012) continues that when these components are utilized only "to stimulate students rather than educate, they do not always make for sound instructional design in multimedia delivery and can quickly become counter-productive to learning" (ibid, p. 264).

Congruently, Kanellopoulou, Kermanidis, and Giannakoulopoulos, (2019) caution MBE instructors that media might enhance students' motivation and excitement but we should bear in mind that using these teaching aids may hinder learning compared to simply offering new information directly using text and pictures. According to these researchers, multimedia instructional course design is mostly intuitional rather than empirical. Along with Kanellopoulou et al., Mayer (2020) and Sordan (2012) call some of these intuitional designs into question when they assert that a learning teaching context that utilizes game-like strategies and flashy multimedia is appropriate to hold a learner's attention; s/he is engaged and her/his attention is completely focused on the activity at hand; however, learning and comprehension might be sacrificed. The authors of the present study, all as the experienced

university teachers, believe the key to successful utilization of MBE in General English classes and avoiding less-than-optimal instruction lies not only in the use of suitable audio tracks or videos but also in the highly structured design in a way that resourcefully maximizes and facilitates learning.

Even though the results did not seem to be particularly favorable in the scope of students' reading comprehension, they did seem promising with respect to students' attitude and motivation, which had improved significantly as established by the questionnaires administered after the post test. This is in agreement with Ainsworth (1999), Astleitner and Wiesner (2004), Shuell and Farber (2001), and Sweller (2005) all of whom indicated a Positive and significant correlation between implementing media and improving learners' attitude and motivation. Thus, given the essential role that attitude and motivation can play in determining the quality of learning, one could consider it well justified to employ such tools in the class. The reason for this might have to do with the novelty of this method at the university environment, which probably provided for a more interesting and lively atmosphere than what students have come to expect to encounter in traditional classes.

Conclusion

In summary, the current findings in relation to the effects of using audio-visual materials on reading comprehension skills in university General English classes suggest that the students provided with the content-related video and audio files seem to perform comparatively better on the reading skill. Moreover, concerning the second objective of the study, it was found that using audio-visual aids effectively may prove to be successful in increasing the motivation and positive attitudes of the students toward English language learning through substituting monotonous and traditional reading-based learning situations with a more pleasant and active environment.

Our research also provides certain pedagogical implications for university General English teachers, materials designers, and even educational policy makers. Despite extensive and widespread use of audio-visual aids in private language schools, these aids have yet failed

to find their way to General English classes at university for a variety of reasons, the most common of which is time limitations at university. However, our study revealed that the use of audio-visual aids in university classes is quite feasible and can help the students improve their reading skill and also adopt positive attitudes with a higher level of motivation towards English language learning. Therefore, we believe, the teachers and material developers should make major reconsiderations in traditional General English classes. In addition, policy makers (other stake holders), considering theses positive effects, should provide the necessary facilities for technology use in English classes at university level.

Despite our best efforts, there were certain limitations that we could not overcome and might make significant contributions to the literature if considered in future studies. The present research did provide insights on the students' perception and attitudes toward English learning experience; however, we will certainly acquire a more complete picture if the teachers' attitudes are also considered. Moreover, the present study assessed the effects of audio-visual aids only on reading comprehension as an essential skill in academic context, but considering the effects of audio-visual aids on other skills and also on general language proficiency, would certainly yield a deeper insight for both researchers and teachers. Finally, considering the central place that is accorded to reading skill in ESP classes, we suggest that the use of multi-media in such classes could be investigated at different universities nationwide and its effect evaluated on the students and ESP teachers.

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