

The Effect of Technology Enhanced Language Learning on Arabic-Speaking EFL Students' Academic Performance in Primary Schools/UAE

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This quasi-experimental study intends to find the effectiveness of using modern technology, such as smart boards, computers, or educational channels via YouTube, on the academic achievement of Arabic-speaking EFL students in learning the English language and on students' awareness and perception. The study involved two second grades of English language students, divided into experimental and control groups (a total of fifty eight students, n= 58). The same teaching techniques were used on both sections to cover the same writing, reading comprehension, grammar and vocabulary materials. Technology was used for the experimental group but not for the control group. Pre and post-test scores were compared to detect significant differences before and after the intervention. Teacher observations/notes were used as data collection tools. Additionally, a post-instruction base questionnaire to reflect the participants' opinions about the effectiveness of technology-based instruction on English language skills was conducted to see if they had enjoyed the experience. Data generated from the study revealed significant improvement over a reasonable period of time. Moreover, technology-based instruction had an obvious impact on student's academic performance and their perception of English language learning.

Keywords: *EFL teaching, Teaching English using Technology, Integration of technology, Curriculum development, Primary school students, UAE.*



Introduction

Technology has become one of the most influential tools all over the world in our modern days. Being easily accessible regardless of the geographical location, the majority of people rely on it for various tasks, where in the past these tasks used to be done manually. As the world is evolving daily, education has taken its own path of evolution as well. From farm based one-classroom schools to modern academies, teaching techniques have developed considerably as well. According to Ahmadi and Reza, (2018), using computers is something considered very important in language classes, which are regarded by the teachers as “high-quality” educational tools. Hamer (2007) sees that using computer-based language activities can enhance teamwork and collaboration in learners. According to Keser, Uzunboylu and Ozdamli (2012), the separation of computers and internet is something nearly impossible in education at this time. Using technology makes it easier for learners of English to cooperate and work together in creating tasks and learning from each other through reading their counterparts’ work.

Now with all the modern research and paying attention to meeting every student’s needs, new teaching methods and techniques have taken the place of old ones to help students achieve the best results from school. Books are not the only source of information anymore, and teachers are not the only ones who can provide the information. The virtual learning environment is now used in most countries and teacher’s roles have changed.

In this paper, the researchers will use the directional hypothesis to prove that the use of modern technology (such as educational websites, visual and audio aids, and smart boards) can improve the academic level of English language learners, as it stimulates their urge to learn beyond the limits of old-fashioned teaching methods. The main reason for conducting this research is researchers’ observations of a lack of curiosity and creativity in students depending solely on their textbooks as their main sources of information.

Pre and post-tests will be conducted on a number of selected students to support the results of the research. The research design will be quasi-experimental and will be applied to a group of 2nd grade boys between seven and nine years of age. Each classroom contains 28 students, and the total number of participants will be 56 students in both classrooms.

The research sample is a purposive sample, and the experimental group was determined according to the students’ nature. Since the controlled group had 2 students of special needs (autism) and the researchers did not know what kind of impact would be present in those two cases, the two cases were excluded from the experimental groups.

This study examines how technology enhanced language learning affects Arabic-speaking EFL students' academic performance in English language proficiency, in addition to investigating its effect on increasing the overall student perceptions of English language learning. The collection of data from both the experimental (n=28) and control (n=28) groups was executed through pre and post-tests. The main source of data for analysing student perceptions of the technology enhanced language learning experience was derived from a five-point Likert Scale questionnaire. The following research questions were used to be answered and a statistical analysis of data collected was performed to achieve that purpose:

- Do the pre-test scores for the experimental and control groups present considerable differences at the beginning of the study?
- Were the skills and knowledge of English language increased from the pre-test to the post-test, among the experimental and the control groups? Is the change from pre-test to post-test greater in one group than the other?
- Does the integration of technology in the teaching/learning process have a positive effect on students' perceptions?

Literature Review

According to Raja and Nagasubramani's (2018) study, technology has made the world one place where you can share everything easily. This made information easily accessible and has unified us. Modern technology melted all geographical boundaries and allowed students to mix with their peers in other countries and to exchange experiences. The researchers also indicated that there are positive and negative impacts of using technology in teaching. For example, if a student is familiar with using technology at school but they do not have the same opportunity at home, it might affect their improvement level. The researchers also had a major concern regarding writing, since students lose their interest in handwriting if they are used to typing rather than writing. However, they pointed out that it is a teacher's role to direct students away from negative points that they think could be avoided.

Muir-Herzig & Rozalind (2004) argue that using technology in teaching and learning engages students in an active situation of critical thinking and problem solving. It raises teamwork and collaboration levels with others in terms of what they know. Thus, classes that integrate more technology are shifting from being teacher-centred to student-centred. Nomass (2013) highlights the role of modern technology in English teaching, as she examined various techniques in teaching using technology such as online websites, computer programs, presentation software, chatting and email messaging programs. In her case study of typical English language classroom students using technology in the learning process, some of her recommendations stated that modern technical ways should be followed for effective learning and teaching of the second language. In addition to computers, Al Zahrani (2015) thinks that

many other alternatives are available for students to locate contents and information, such as smart phones, tablets and “digital games” (Papadakis, 2018), among others.

A joint study between US and Jordanian researchers aimed to measure the effects of technology on the achievement and motivation levels of 4th grade students in Illinois. Researchers spent an entire academic year collecting data. Monthly exams were conducted to explore the effect of using technology on the students’ performance and motivation. Results showed that the academic level was noticeably improved for the implementation group but their motivation level to learn was not very high; surprisingly the traditional group showed a higher level of motivation to learn. The researchers concluded that even though the use of technology improved the academic achievements of the implementation group, it was up to the teacher to enhance and support the eagerness of learning among students. As a result, their paper concluded that with or without the use of technology, it is up to the human factor to run the process successfully in order to get the maximum benefit from the learning process (Harris, Al Bataineh & Al Bataineh, 2016).

Another study performed by Simoforosa (2013) conducted qualitative research with a purposive sample consisting of 24 teenagers, 4 parents, and 4 teachers. His findings were that since educational resources were no longer limited to school curriculums, libraries, and laboratories, students who used technology had shown an improvement in their self-learning skills, independent learning, and problem-solving skills. The students showed enjoyment in learning when using technology, which improved their communication skills. However, the negative effect on the students was alarming. Some of the students had developed behavioural issues such as violence and became anti-social because of the content they were exposed to while being online, and some of them had missed their homework deadlines and forgot to finish their required tasks because of their misuse of the internet. The researcher concluded that technology has both negative and positive effects on the students. Hence, many researchers have attributed the success of using technology and achieving a balance between negative and positive sides to teachers and adults guiding students during their learning process.

A group of researchers from Taiwan did quasi-experimental research on a total of 116 students in four classrooms. Two classrooms used a traditional learning method while the other two classrooms used digital learning. The experiment lasted for 32 weeks. The digital method was used for 3 hours per day by the experimental group. The researchers’ conclusion was that the digital learning and use of technology improved the experimental group’s motivation and learning process significantly. The researchers also noted that if a teacher developed their way to teach and adapt new methods the whole time, their effect on the students would be similar to using technology in the classroom (Lin, Chen, & Liu, 2017).

On the other hand, a recent study proved that using technology had no effect on improving students' academic achievement levels. On the contrary, it had affected some of the high achievers' levels negatively, as some students used it for entertainment purposes rather than studying purposes. The study took place in Norway. The research sample was taken from 289 Norwegian secondary schools. The government had applied a one-to-one strategy where they provided a laptop for each student that participated in the study. The selected students were from the academic year of 2003 to 2015. They limited the experiment to teaching only three subjects with this strategy to find its outcomes. Pre and post exams and personal interviews with the students were conducted to see the effect of the technology on the students' performance. The results were unexpected, as no improvement was observed in most of the students' learning levels. This is because most of the students were dividing their computer use into studying and playing (Stakkestad & Stordal, 2017).

Mittal (2015) thinks that using technology in English teaching does not always have positive results. Although she listed many positives of using technology in English teaching, she also mentioned the negative sides of it. For example, she sees that technology diminishes necessary one to one speech and teacher student eye contact. It also eliminates a teachers' human insight and direct, valuable feedback. Instead, the teachers become slaves to instruments and their features. Consequently, creativity disappears on both sides, the teacher's and the learner's.

The Study

The study adopted a quasi-experimental design, as participants were assigned to either the experimental or the control group based on their availability, capability and interest in participating in the study. Pre-intervention and post-intervention measurements were used for both groups (Table 1). The first test for the experimental and the control group was considered the pre-test and the final exam was considered the post-test.

Table 1: The total score of participants in the pre-test and post-test

#	Pre-test Control	Pre-test Experimental	#	Post-test Control	Post-test Experimental
1	18	20	1	20	23
2	19	16	2	20	21
3	18	18	3	18	21
4	17	19	4	20	22
5	20	20	5	20	22
6	22	16	6	23	20
7	14	18	7	15	25
8	19	19	8	19	24

9	22	23	9	22	23
10	23	20	10	25	23
11	16	18	11	18	22
12	15	16	12	15	19
13	17	17	13	16	19
14	18	15	14	19	20
15	19	18	15	19	21
16	19	19	16	20	23
17	19	19	17	19	22
18	18	22	18	19	22
19	22	23	19	22	23
20	20	24	20	20	25
21	21	24	21	21	25
22	16	20	22	17	22
23	15	21	23	16	24
24	19	19	24	19	23
25	15	16	25	17	20
26	18	15	26	18	20
27	16	15	27	18	19
28	19	18	28	20	20

Tests were validated using subject matter experts' judgment and a group of senior English language teachers at the Faculty of Education and Basic Sciences of Al Ain University. Their comments, advice and recommendations were taken into consideration. Test modification continued until it was determined that the items were clear and representative of the chosen concepts in English language curriculum: writing, reading comprehension, grammar and vocabulary. The test was scored as follows:

Table 2: English language test scoring:

#	Parts of Tests	Marks
1	Writing	5
2	Reading Comprehension	10
3	Grammar	5
4	Vocabulary	5
	Total	25

Methodology

Research Design

The aim of this study was to detect the effects of using technology enhanced language learning on Arabic-speaking EFL students' academic performance in primary schools in the United Arab Emirates. The study was based on a quasi-experimental design: the non-equivalent groups design (Campbell & Stanley, 1996). The independent variable was the incorporation of technology into the instruction, while student academic achievement was treated as the dependent variable in the experiment. For this purpose, three data collection tools were utilised. The data collection tools were pre and post-tests, a Likert Scale questionnaire, and teacher/researcher observation notes.

The participants were 7 to 9 year old second grade boys in two Arabic-speaking EFL classes. Each classroom contained 28 students, with a total number of 56 participants. Students in the experimental group were informed about the new method being applied so that the researchers could take their feedback later on. The experiment started immediately after the pre-test results were documented. Intervention for technology enhanced language learning was implemented for a period of 34 days from February 17, 2019 until March 21, 2019.

In the beginning, students were “neutral” (not significantly different from before). They were not sure whether they would learn better with the integration of different technology. After the first day of implementing the new method by showing the students educational videos and audio material that supported the lesson theme, the students' attention was fully directed to the material and minimum distraction was noted by a small number of students.

Attention, according to the information processing theory, is a prerequisite to learning. This means that “there is no learning without attention,” (VanPatten, 1990; de Graaff, 1997; VanPatten, 1994). Several studies confirmed that it is impossible to completely separate attention and awareness, because of the core assumption that attention and awareness are two sides of the same coin (Carr & Curran, 1994; Posner, 1994).

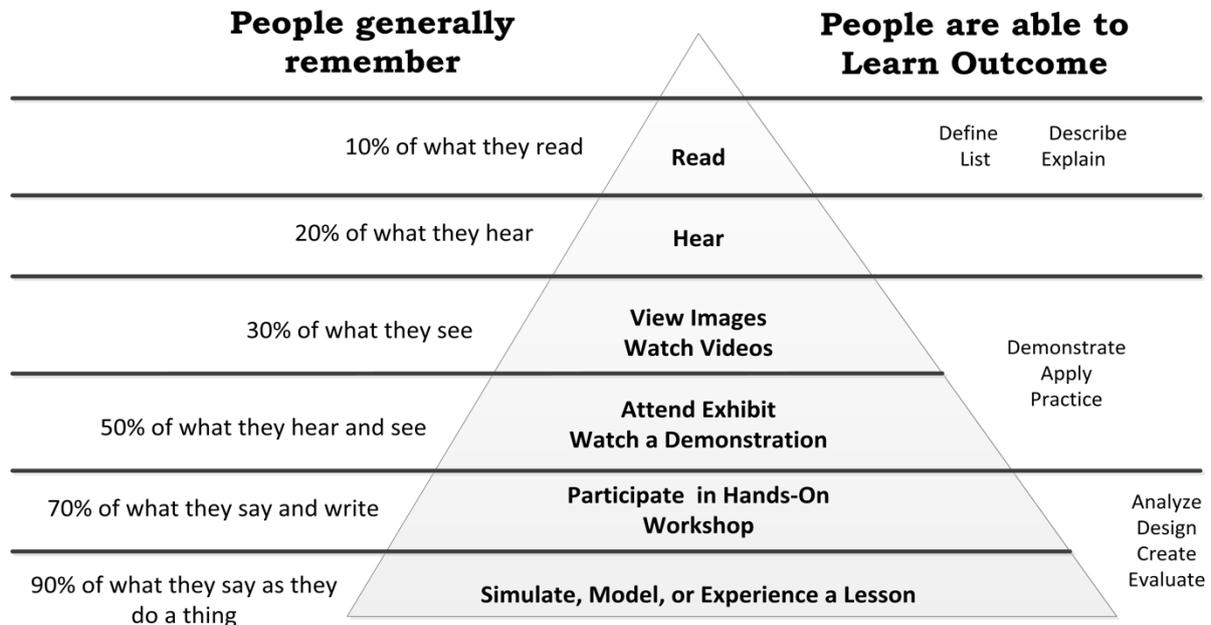
According to the recommendations of Peters (1998), attention plays a significant role in any second language development present in every aspect of language learning (semantics, grammar, phonology, pragmatics, vocabulary). Learners must be alert and aware. They must be able to notice differences, changes, nuances, connections and attend to any cause of difference that matters and whatever makes a difference in meaning in Figure 1.

Figure 1. Success formula for learning a language



Several educational studies demonstrate that people learn, retain, and remember “10% of what they read, 20% of what they hear, 30% of what they see, 50% of what they see and hear, 70% of what they discuss with others, 80% of what they personally experience, and 95% of what they teach others” (Glasser, 1998). This suggestion was initiated and supported by Edgar Dale’ Cone of experience (1969) as shown in Figure 2.

Figure 2. Edgar Dale Cone of Experience (Dale, 1969)



The above suggested facts indicate that keeping class energy elevated, livelier and more animated helps memory retention. The closer to reality a lesson is, the more engaged, alert

and ready to learn the students will be. Thus, by using technology, students improve their chance to increase their exposure to language in a meaningful setting and create their own knowledge (Warschauer, 2000; Parvin and Salam, 2015). This is achieved through learners' involvement in real activities or engaging them in tasks/activities with real-world connections. Consequently, using different technologies (such as videos) will help achieve that.

By the fourth day, the experimental group started to feel motivated and confident enough to ask about and discuss a topic with their teacher after watching the videos. The lessons ran smoother on daily basis, and the students were searching for similar topics online at home with the help of their parents.

The Intervention

The rationale/intention of having a control group is to rule out other factors that might impact the results of the intervention in this quasi-experimental research design.

To illustrate, one of the intervention's lessons was about the months of the year (Table 3). To ensure students are effectively learning and to facilitate substantial gains in their learning objectives, students should be able to comfortably:

- Capitalise a month's name (i.e. April vs. april),
- Pronounce the month's name correctly,
- Say/write the months in the correct order.

For this purpose (the pre-test), English language skills were conveyed to both groups using the traditional teaching method that heavily employed a textbook. For the post-test, the control group was taught using the same traditional teaching method while the experimental group was taught using the technology-based method.

Consequently, and since the control group method was the traditional way, we started the lesson with a warm-up question: Do you know how many months there are in a year? How many can you tell me? The students gave correct answers about the number of months but only a few were able to mention the months' names correctly or in the correct order. The students' textbook was used afterwards to help students learn how to correctly pronounce the months' names. Participants attempted to articulate the months of the year, struggled a bit in the process, and giggled. A few students reached a hundred percent accuracy and many students settled for some close approximation of the names. Typically, the lesson is followed by more practice of the activity provided in the "activity book" to sum up the lesson. Consequently, the following was noticed:

- Lack of curiosity and creativity, as students depended on their textbooks only as the main source of information.
- The students tended to be unfocussed but able to pay attention to the capitalisation rule.
- The right order was still not achieved properly.
- The months associated with certain events (like December, linked with the National Day of the United Arab Emirates (UAE)), were the months that the students identified immediately.

On the other hand, the experimental group lesson started with a warm-up song from a YouTube channel. The song showed the months' names along with the seasons. The students were asked to pay close attention to the pronunciation of the months when the song was played for the second time. The video was played from a Power Point presentation that the teacher had already prepared. After the song clip, a discussion between the teacher and the students took place for about 10 minutes to give the group a chance to talk about their birthdays and their loved ones' occasions. Later on, activity work sheets were displayed on the projector over the board with four complexity levels (differentiation) to suit all academic levels of the participants. Printed out worksheets were also given to the students to work on. Participants attempted to name the months of the year with the teacher's help using different forms of educational media and technology. Most students reached a hundred percent accuracy, and a few students settled for some close approximation of the names.

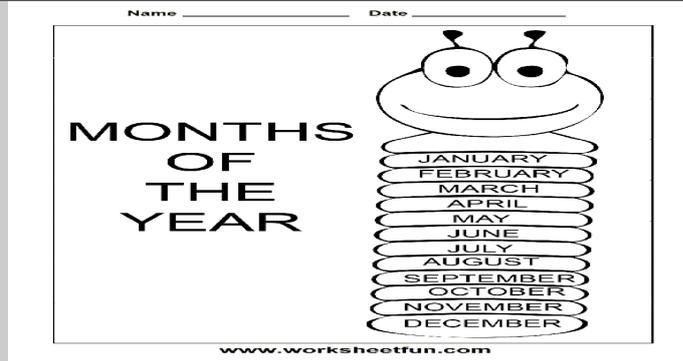
The most obvious fact was that the technology-based classroom environment became more enjoyable when compared to none-technology based classes. Thus, students were very attentive, enthusiastic, and eager to learn in their English class. Additionally, after the lesson was over, the teacher observed/noted the following:

- Students were alert and able to focus their attention on the main tasks of the lesson.
- Students were able to understand, communicate, and make connections between various sources of information.
- Students were able to put the months of the year in the right order.
- Students did unscramble the months' names but some of them forgot the capitalisation rule.
- Students were able to count the months and pronounce them correctly from the first attempt, with only a few errors by some of the low achieving students.

Table 3: Months of the Year Lesson

Step	Lesson Activities	Level of Students' Academic Achievements
Step One:	<ul style="list-style-type: none"> ▪ Good morning students, today we will learn about the months of the year. ▪ Let's all hear this song and please, pay close attention to the pronunciation of the months' names. ▪ https://www.youtube.com/watch?v=gtc4c1JIAEM 	All Students
Step Two:	<ul style="list-style-type: none"> ▪ Did you enjoy the song? ▪ Now let's listen one more time, but this time let's count how many months are there in a year and listen carefully to the names. 	All Students
Step Three:	<ul style="list-style-type: none"> ▪ Let's count: 1 January 2 February 3 March 4 April 5 May 6 June 7 July 8 August 9 September 10 October 11 November 12 December ▪ Excellent, there are 12 months in a year. ▪ Please note that each first letter in their names is a capital. ▪ Do you know the month of your birthday? It's the month when you were born. I was born in December. 	All Students
Step Four:	<ul style="list-style-type: none"> ▪ Now we will do some activities together to see how well we learned our lesson today. The months' worm will be on the board to help you out in solving your activities. ▪ Please feel free to ask me about any point that is not clear. 	All Students

**Months of
The Year
Worm**



Below Grade Level
Students
(Low Achievers)

**Months of
The Year
Order**



On Grade Level
Students
(Normal
Achievers)

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Months of the Year		
last month	this month	next month
October	November	December
	August	
	February	
	June	
	January	
	April	
	September	
	March	
	October	
January	May	September
February	June	October
March	July	November
April	August	December

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Months of The Year Scrambled	www.worksheetfun.com Months of the Year Unscramble the words	Above Grade Level Students (High Achievers)
	uyjnara <input style="width: 100%;" type="text"/>	
	ryfbeura <input style="width: 100%;" type="text"/>	
	hcmra <input style="width: 100%;" type="text"/>	
	lapir <input style="width: 100%;" type="text"/>	
	yam <input style="width: 100%;" type="text"/>	
	enju <input style="width: 100%;" type="text"/>	
	yjlu <input style="width: 100%;" type="text"/>	
	gtsuaa <input style="width: 100%;" type="text"/>	
	tmesperbe <input style="width: 100%;" type="text"/>	
	tcobore <input style="width: 100%;" type="text"/>	
	vonmereb <input style="width: 100%;" type="text"/>	
	cedmeerb <input style="width: 100%;" type="text"/>	

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Step Five: The conclusion: All Students

- Well done everyone.
- Now who can tell me some of the months' names that we have learned today?

Source: worksheetfun.com

Data Collection and Analysis

The statistical analysis program SPSS was used in the computational steps of this study. It was hypothesised that the means would be equal; the alternative hypothesis was that they would be unequal. A paired sample t-test was used to generate data for testing the hypothesis. All statistical tests were conducted using a significance level of $\alpha = 0.05$.

In order to answer the first research question:

1- Do the pre-test scores for the experimental and control groups present considerable differences at the beginning of the study?

At first, researchers tried to identify the participants' English language skills and knowledge levels before starting the intervention. Hence, it was necessary to decide whether there was a statistically significant difference between the control group and the experimental group in the pre-test mean scores.

To achieve this purpose, a t-test was conducted. The measure used in this analysis was the raw score of the English language first exam (pre-test). Analysis of the mean scores showed that results were statistically the same as shown in the tables 4a, 4b, 4c & 4d.

Table 4a: Paired Samples Statistics for comparing pre-test, control & experimental groups

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-test control	18.3571	28	2.36039	.44607
	Pre-test experimental	18.8571	28	2.66270	.50320

Table 4b: Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pre-test control & Pre-test experimental	28	.439	.020

Table 4c: Paired Differences

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre-test control - pre-test experimental	-.50000	2.67360	.50526	-1.53671	-.53671	-.990	27	.331

Table 4d: Comparison of pre-test scores for control and experimental groups

	Mean	Standard deviation	Degree of freedom	t	sig
Pre-test scores for control and experimental groups	-.500	2.67	27	-.99	.33

Based on statistical package of social science (SPSS. 22), the above results show that there are no statistically significance differences between pre-test scores of the control and excremental groups (t-test equals (.99) with significance more than 0.33). Therefore, the answer to this research question is there were no significant differences at the starting point of the study.

2. Do overall English language knowledge and skills increase from the pre-test to the post-test, among the experimental and the control groups? Is the change from pre-test to post-test (if it exists) greater in one group than the other?

To answer the first part of the second research question, the pre-test and post-test for the control and the experimental group were compared to detect the differences in their mean scores. The result of such analysis revealed that there was improvement from the pre-test to post-test in both groups (Table 53a and 53b.)

Table 5a: Comparison of pre-test and post-test scores of the experimental group

	Mean	Standard deviation	Degree of freedom	t	sig
Pre-test and post-test scores of the experimental group	3.03	1.68	27	9.514	0.00

The above table shows that there are statistically significant differences between the pre-test and post-test scores of the experimental group (t-test equals (9.514) with significance less than 0.05). Differences favour the post-test score for the experimental group.

Table 5b: Comparison of the pre-test and post-test scores of the control group

	Mean	Standard deviation	Degree of freedom	t	sig
Pre-test l and post test scores of the control group	0.750	0.92	27	4.277	0.00

The above results show that there are statistically significant differences between the pre-test and post-test scores of the control and post-test control groups (t-test equals (4.277) with significance less than 0.05), statistical differences are in favour of the post-test control group.

Further investigation regards the second part of this research question: “Is the change from pre-test to post-test greater in one group than the other?” The mean scores of the post-test for the control and the experimental groups were compared and analysed for significant differences. Data generated from this comparison confirmed that although there was an improvement from the pre-test to post-test for both groups, there was still a significant

difference between the mean score of the control and the experimental groups, as shown in Table 5c.

Table 5c: Comparison of post-test scores for the control and experimental groups

	Mean	Standard deviation	Degree of freedom	t	sig
Post-test scores for control and experimental groups	-2.785	2.60	27	5.66	0.00

The above results confirm that there are statistically significant differences between the post-test scores of the control and experimental groups (t-test equals (5.66) with significance less than 0.05), differences are in favour of the post-test of the experimental group.

3. Does the integration of technology in the teaching/learning process have a positive effect on students' perceptions?

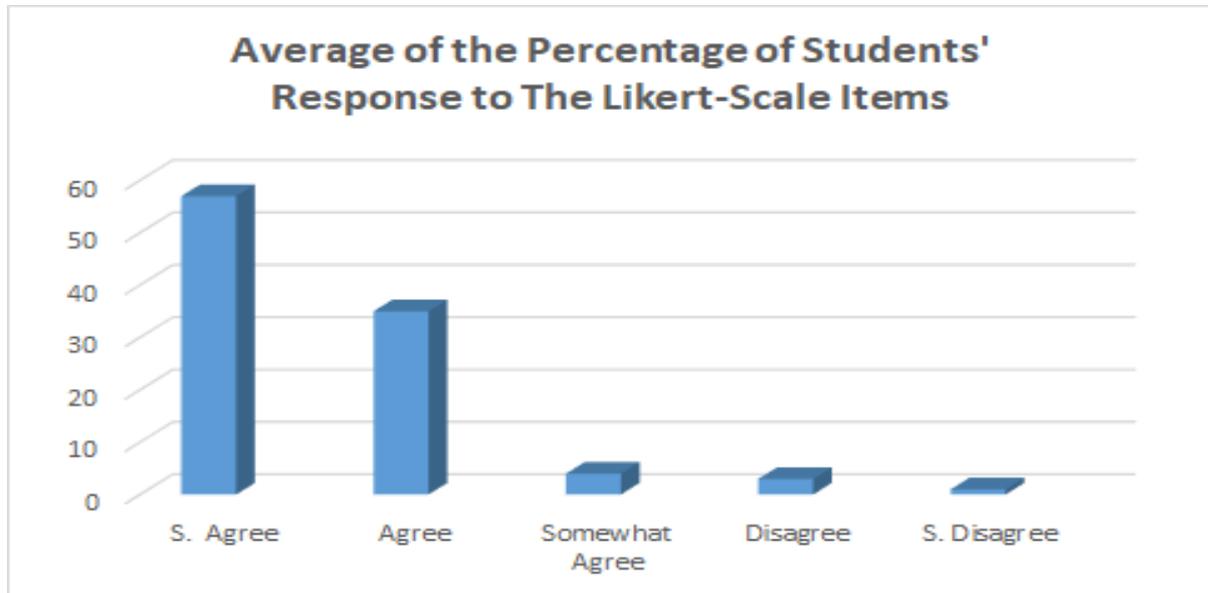
To investigate students' perceptions of their achievements due to the implementation of technology enhanced language learning, a Five-point Likert Scale questionnaire was used in this study. Participants were asked to respond to a questionnaire that consisted of three Likert Scale items. The options for answering each question were: Strongly Agree (5), Agree (4), somewhat agree (3), Disagree (2) and Strongly Disagree (1). Using the Five-Point Likert Scale, participants were asked to respond to each statement in terms of their own degree of agreement or disagreement (Table 6). The responses to the items were added so that participants with the maximum favourable attitudes had the highest scores, while individuals with the minimum favourable attitudes had the lowest scores. This represents their perceptions of the effect of technology enhanced language on their learning.

Table 6: Agreement with statements about how technology enhanced language learning activities

No.	Question	S. Agree	Agree	Somewhat Agree	S. Disagree	Disagree
	Technology Enhanced Language learning helped in:	%	%	%	%	%
1	Paying greater attention in class	65	30	2	2	1
2	Making learning easier and more attainable.	51	40	4	4	2
3	Developing more optimistic attitudes in the classroom towards learning.	55	35	6	3	0
	The average percentage of students' responses to the Five-Point Likert Scale statements.	57	35	4	3	1

The above data was generated using a Likert Scale questionnaire regarding experimental group participants' perception of their technology enhanced language learning experience (intervention/treatment). This is illustrated in Chart 1.

Chart 1. Students' perceptions of technology enhanced language learning



The above chart demonstrates that the participants who were exposed to the technology enhanced language learning intervention expressed positive attitude towards the effect of employing technology enhanced language learning in their academic performance in English language class.

Discussion and Recommendations

In this study, the technology-based instruction was shown to be an effective learning strategy for second grade students in the UAE. The research found that, technology positively affects students' achievement in English language learning, as measured by pre-test/post-test assessments and a Likert Scale questionnaire. The questionnaire and tests were used to check the significant differences between students studying with modern teaching technologies and students studying without them. The data generated from this study guaranteed that the knowledge of and skills in the English language were at the same level at the starting point of the study prior to the intervention's instruction. It also established that even though there was academic progress for all participants, it was clear that the students in the control group, using their current textbook, showed moderate improvement, while the experimental group's participants showed significant improvement in overall test scores from the pre-test to the post-test. The mean score was significantly higher in the experimental group. This specific result of this study supports the research hypothesis and is strongly aligned with a variety of previous studies, such as those of Costley (2014), Pourhosein Gilakjani (2014), and Pourhossein Gilakjani & Sabouri (2017).

The Likert Scale questionnaire's findings showed that the technology-based instruction experience had a clear positive impact on participants' perceptions. The modern technology helped encourage students to engage in deeper learning. Consequently, learners had more chances to obtain hands-on and minds-on experience and to better communicate, understand, and make connections to their learning (Vasquez-Dewein, 2017; Murphy, DePasquale, & McNamara, 2003). This fact can genuinely affect students' attitudes towards overall classroom experiences. This assures that teachers must have continuous support and training for incorporating technology into language teaching.

Therefore, the researchers recommend that teachers should urge their learners to use technology in developing their language skills. Teachers should try to use different forms of technology that correspond with the students and their needs. Teachers should be able to identify available resources and technologies, evaluate them according to class objectives and be able to choose the most appropriate ones. According to McManis & Gunnewig (2012), determining the appropriateness of educational technology in learning can be pinpointed: "First establish learning goals for the children, second identify the hardware or devices you have or would like to have, third analyse features and content of the software program in meeting learning goals and finally, plan how the educational technology will be integrated into the curriculum" (p.17). Thus, it is very vital for teachers to have the required knowledge and skills of these technologies in teaching language skills (Pourhosein Gilakjani, 2017; Solanki & Shyamlee1, 2012).



Replicating this research with other groups of students, subjects and schools in the United Arab Emirates and other parts of the world would provide researchers and educators with a more in-depth look into the roles of educators students in school environments.

Therefore, this study is considered an initial investigation that needs further exploration regarding practices in a technology-based learning environment that best match the vision and needs of local schools and similar schools in the region and worldwide.

Conclusion

The main objective of this study was to measure student achievement (for those using technology-based instruction), and to compare this achievement with those using traditional instruction. The assumption that using modern technology would result in higher achievement was confirmed. In conclusion, technology-based learning has a very influential positive impact on improving student achievement. Technology-based instruction is advantageous in the class, helps gain students' attention, actively engages them while making learning interesting, which can generate fun times and lasting memories of what they've learned.



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