

Using the SAMR Model as a Framework for Enhancing English Listening Comprehension of General Secondary Stage Students

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Abstract:

This study aimed at exploring the effectiveness of using the SAMR model as a framework for enhancing English listening comprehension of General Secondary Stage students. The study followed the pre-, post-test quasi-experimental research design. The participants of the study were first year General Secondary Stage students who represented two classrooms which were randomly selected and assigned to two groups, one classroom as the experimental group (n=32), and the other classroom as the control group (n=32). The required listening comprehension skills were determined from a validated checklist. Then, a pre-, post-English listening comprehension test was designed, validated and administered to both groups before and after the experiment. The experimental group received instruction by using technology based on the SAMR model, while the control group received regular instruction as prescribed in the Teacher's Guide. The statistical analysis of the obtained data confirmed a large effect size of using the SAMR model (0.974) on enhancing English listening comprehension of the experimental group. This revealed the usefulness of using the SAMR model as a framework for enhancing English listening comprehension of General Secondary Stage students. Some recommendations and suggestions for further research were provided.

Keywords: The SAMR Model, Listening Comprehension, General Secondary Education

مستخلص الدراسة

هدفت الدراسة الحالية الى التعرف على فاعلية استخدام نموذج (SAMR) في تحسين الفهم الاستماعي باللغة الإنجليزية لدي طلاب المرحلة الثانوية بالتعليم العام. تمثلت مجموعة الدراسة في فصلين من فصول الصف الأول الثانوي بالتعليم العام والذين تم انتقاؤهم وتقسيمهم عشوائياً الى مجموعتين، فصل يمثل مجموعة تجريبية (ن=٣٢)، والفصل الاخر كمجموعة ضابطة(ن=٣٢). وتم تحديد مهارات الفهم الاستماعي باللغة الإنجليزية المناسبة لطلاب الصف الأول الثانوي بالتعليم العام عن طريق إعداد قائمة مهارات تم التأكد من صدقها من قِبَل لجنة من المتخصصين في مناهج وطرق تدريس اللغة الإنجليزية، وقد اشتملت الدراسة على اختبار الفهم الاستماعي باللغة الإنجليزية والذي تم التأكد من صدقه وثباته ثم تم استخدامه في القياسين القبلي والبعدي للمجموعتين التجريبية والضابطة. هذا وقد اثبت التحليل الاحصائي فاعلية استخدام نموذج (SAMR) في تحسين الفهم الاستماعي باللغة الإنجليزية لدي المجموعة التجريبية، فقد كان حجم تأثير البرنامج مرتفع (٠.٩٧٤) في تحسين الفهم الاستماعي باللغة الإنجليزية لدي المجموعة التجريبية للدراسة الحالية. وتم إضافة بعض التوصيات والمقترحات لبحوث مستقبلية.

الكلمات المفتاحية: نموذج (SAMR)، الفهم الاستماعي باللغة الإنجليزية، التعليم الثانوي العام

Introduction

Listening, reading, speaking, and writing are the major English language skills, where listening and reading are considered as receptive skills which help learners receive and interpret information as the input of language and lay foundations of speaking and writing as productive skills. Therefore, there is a necessity for enhancing listening comprehension of English as a Foreign Language (EFL) learners.

Listening comprehension refers to the ability to listen and comprehend spoken language of multiple utterances and oral texts (Kim & Pilcher, 2016). Listening comprehension is one of the most significant skills in Second Language (L2) learning and one of the most essential proficiencies for human beings to enhance because it is one of the basic attributes of communication (Gilakjani & Ahmadi, 2011). Listening comprehension is, therefore, vital for language acquisition.

Researchers developed standards, frameworks, models, and theories to guide research and practice around integrating technology into teaching and learning of a Foreign Language (FL) to ensure the success of practical application of technology integration into teaching practices for student learning. One method of evaluating technology integration is the SAMR model which was founded by Ruben Puentedura in 2006.

The use of the SAMR model for enhancing language skills was recommended by Kurbaniyazov (2018). Moreover, Floris and Renandya (2017) illustrated how to use the SAMR model for teaching listening comprehension. Besides, a study was conducted by Santiago (2017) on the use of the SAMR model to improve EFL learners' willingness to communicate. Furthermore, Lobo and Jiménez (2017) used the SAMR model to evaluate basic grammar projects. In spite of the importance of the SAMR model in teaching and learning of language, there is a lack of research – according to the researcher's knowledge – conducted on using the SAMR model to enhance listening comprehension of EFL learners.

Background of the Problem

The researcher works as an EFL teacher at the General Secondary Stage. The researcher noticed that first year General Secondary Stage students have weaknesses in English listening comprehension in spite of its importance.

To make sure of the existence of the problem, the researcher reviewed previous studies carried out in Egypt on General Secondary Stage Students' English listening comprehension. Studies conducted by El-Shourbagy (2017), El-Dib (2018), Gad (2018) and Muhammed (2019) were carried out because Egyptian General Secondary Stage students have weaknesses in English listening comprehension.

The researcher also interviewed five teachers and three supervisors of English at the General Secondary Stage in Aswan Governorate and discussed with them their opinions about first

year General Secondary Stage students' problems with English listening comprehension. These teachers asserted that most of their first year General Secondary Stage students suffer from weaknesses in English listening comprehension.

A pilot study was conducted by the researcher who adopted a listening comprehension test designed by Muhammed (2019) because it had proved to be valid and reliable for testing first year General Secondary Stage students' listening comprehension. The scores which these students got on the test were very low. This revealed the weaknesses they have in their listening comprehension.

Statement of the Problem

The pilot study revealed that there were weaknesses in listening comprehension among first year General Secondary Stage students. The listening comprehension weaknesses are represented in their inability to identify specific information, guess the meaning of the difficult words from their context, make inferences, identify relevant information, and distinguish formal versus informal speech. To solve this problem, the researcher conducted the current study to investigate the effectiveness of using the SAMR model as a framework for enhancing English listening comprehension of first year General Secondary Stage students.

Review of Related Literature

Listening Comprehension

Listening comprehension was defined as "an active process in which individuals concentrate on spoken language, construct meaning from passages, and associate what they hear with their previous knowledge" (Cadime, Rodrigues, Santos, Viana, Chaves-Sousa, do Céu Cosme, & Ribeiro, 2017, p. 592).

Significance of Listening Comprehension

There are many reasons for the primacy of listening comprehension. First, listening comprehension provides comprehensible input for learners and it is essential for any

learning to occur. Second, listeners need to interact with the speaker to achieve understanding. Third, listening exercises help learners draw their attention to new forms i.e. (Vocabulary, grammar, interaction patterns) (Eltawila, 2009). Fourth, since listening now constitutes a core component of language proficiency tests, it is an essential skill to master for university entrance exams (Richards, 2008).

Listening Comprehension Process

The Bottom-Up Processing

According to the bottom-up model, listeners build understanding by starting with the smallest units of the acoustic message: individual sounds, or phonemes. These are then combined into words, which, in turn, together make up phrases, clauses, and sentences. Finally, individual sentences combine to create ideas and concepts and relationships between them. According to this model, therefore, the different types of knowledge necessary in the listening process are applied in a serial and hierarchical fashion (Flowerdew & Miller, 2005).

The Top-Down Processing

Top-down processing refers to the learners' use of pre-existing knowledge, or the context to make sense of the spoken text. The knowledge may also include the schemas which have been activated earlier in the listening passage (Vanderplank, 2014). The top-down processing emphasizes the use of previous knowledge in processing a text rather than relying upon the individual sounds and words. It was developed when researchers considered the fact that experimental subjects are unable to identify truncated sounds in isolation from the words they form a part of, whereas subjects are quite able to identify truncated words so long as they are presented with the surrounding context (Flowerdew & Miller, 2005).

Listening Comprehension Skills

Listening comprehension is a main skill which includes several sub-skills. Brown (2004, p. 121) listed micro and macro skills which learners need actually to perform in order to acquire effective listening comprehension as follows:

Macro Skills

There are six micro skills, which are: (a) recognize the communicative functions of utterance according to situations, participants, goals; (b) infer situations, participants, goals using real-world knowledge; (c) form events, ideas, and so on, describes, predict outcomes, infer links and connections between events, deduce causes and effects, and detect such relations as main idea, supporting idea, new information, given information, generalization, and exemplification; (d) distinguish between literal and implied meanings; (e) use facial, kinesics, body language, and other nonverbal clues to decipher meanings; (f) develop and use a battery of listening strategies, such as detecting key words, guessing the meaning of words from context, appealing for help, and signaling comprehension or lack thereof.

Micro Skills

There are eleven micro skills, which are: (a) discriminate among the distinctive sounds of English; (b) retain chunks of language of different lengths in short term memory; (c) recognize English stress patterns, words in stressed and unstressed positions, rhythmic structures, intonation contours, and their roles in signaling information; (d) recognize reduced forms of words; (e) distinguish word boundaries, recognize a core of words, and interpret word order patterns and their significance; (f) process speech at different rate of delivery; (g) process speech containing pauses, errors, corrections, and other performance variables; (h) recognize grammatical word classes (nouns, verb etc.) systems (e.g. tense, agreement, and pluralisation), patterns, rules, and elliptical forms; (i) detect sentence constituents and distinguish between major and minor constituents; (j) recognize

that a particular meaning may be expressed in different grammatical forms; (k) recognize cohesive devices in spoken discourse.

Teaching Listening Comprehension

A typical lesson sequence involves three-part lesson sequence consisting of pre-listening, while listening and post-listening. According to Vandergrift (2004), pre-listening activities help students make decisions about what to listen for and, subsequently, to focus attention on meaning while listening. Pre-listening activities usually have two primary goals. Firstly, to bring to consciousness the tools and strategies that good listeners use when listening. Secondly, to provide the necessary context for that specific listening task, it is worth mentioning that learners comprehend more of a text if they are familiar with the text from experience or they have known something about the topic before or they know what the listening passage concerns. Besides, the kinds of pre-listening activities help to activate students' prior knowledge, build up their expectations for the coming information and sometimes even give them a framework of the coming passage (Lingzhu, 2003).

The while-listening phase focuses on comprehension through exercises which require selective listening, gist listening, sequencing, etc. This stage contains activities done by students during the listening passage. The aim of activities done during this phase is to help students catch the main meaning of the text so that they have enough information to interpret the text. One of the most important functions of the while-listening activities is to present the sound of the target language. This presentation enables students to develop their listening comprehension skills and it also serves as a model of their speech (Tubail, 2015).

The post listening phase typically involves a response to comprehension and may require students to give opinions about a topic, etc. (Richards, 2005, p. 7). Millrood (2001:113) stated that the post listening stage has three purposes. These activities check

listening comprehension. The post listening activities also explain the reason why some students cannot comprehend the listened text and miss essential points of information. A third purpose is to expand on the topic or on the language of the listened text.

Listening Comprehension Assessment

Buck (2001) identified, analyzed, and presented the pros and cons of three approaches used in L2 listening testing: the discrete-point approach, the integrative approach, and the communicative approach.

The Discrete-Point Approach to Listening Assessment

The essential idea of the discrete-point approach is to test one small part (i.e., the language elements) of a decontextualized utterance, The most common types of listening tests within this approach are: phonemic discrimination, paraphrase recognition and response evaluation. According to Buck (2001), phonemic discrimination tasks are the most representative tasks of the discrete-point approach. This type of assessment requires students to listen to a series of isolated words or sentences and then to indicate what sounds or words they have just heard. Usually, phonemic discrimination tasks focus on minimal pairs and students are expected to correctly identify the words they have heard.

The Integrative Approach to Listening Assessment

Buck (2001, p.67) defined the integrative approach as "any procedure or task that causes the learner to process sequences of elements in a language that conform to the normal contextual constraints of that language". The goal of integrative tests is to assess language processing. The types of tasks used to test listening in this approach are dictation, sentence repetition activities, gap filling tests, statement evaluation and translation.

The Communicative Approach to Listening Assessment

The communicative approach states that the use of language is determined by the need to communicate, for this reason, communicative teaching privileges authentic communication and presents learners with the spoken and written forms of language in context. Since the early 1980s, the communicative approach has attempted to incorporate these underlying ideas into assessment practices (Buck, 2001).

SAMR Model

The SAMR model refers to substitution, augmentation, modification, and redefinition. It is a model detailing how technology is integrated into schools and the different tools used (Puentedura, 2006). The SAMR model provides a framework that can be used to classify and evaluate mLearning activities. Ruben R. Puentedura developed the SAMR model in 2006 as part of his work with The Maine Learning Technologies Initiative (Puentedura, 2006). The name SAMR is an acronym formed by the first letter of each of the four levels that describe the use of technology in the learning environment. The four levels according to Puentedura (2013) are as follows: substitution, augmentation, modification, and redefinition.

The learning activities that fall within the substitution and augmentation classifications are intended to enhance learning, while the learning activities which fall within the modification and redefinition classifications are directed to transform learning (Puentedura, 2013). The SAMR model defines the various levels of technology tools and how they can be utilized within the classroom. According to Romrell, Kidder, and Wood (2014), the SAMR model provides educators and instructional designers with a framework to understand when creating learning experiences with technology devices within the classroom at what learning level the activity falls within.

Puentedura (2013) noted that as you move into the modification and redefinition categories, there is the opportunity

to transform learning while Amer and Ibrahim (2014) suggested that the SAMR model could measure the degree of technology integration within the classroom, which could span from activities that enhance the current material being taught to the development and formation of new ideas, tasks, and practices. The most important point is that the use of technology should be linked closely to the purpose of learning and the expected outcomes so that it enhances the teaching and learning experience (Floris & Renandya, 2017).

Importance of the SAMR Model

The SAMR model serves as a framework that allows teachers to assess their use of technology and to determine the level of the technology integration in their classrooms. The model also reminds us that successful technology integration is more than merely choosing and using some applications in the classroom. Successful technology integration should focus on how computers, mobile phones and the Internet connection can be used to support and improve student learning. In other words, technology should be embedded purposefully and effectively into language classrooms (Floris & Renandya, 2017).

SAMR Levels

The four levels of the SAMR model according to Puentedura (2013) from the lowest to the highest are as follows :

1-Substitution: The technology provides a substitute for other learning activities without functional change.

2-Augmentation: The technology provides a substitute for other learning activities, but with functional improvements .

3-Modification: The technology allows the learning activity to be redesigned.

4-Redefinition: The technology allows for the creation of tasks that could not have been done without the use of the technology.

At the substitution level, digital technology is substituted for analog technology, but the substitution generates "no functional change". At the augmentation level, technology is

exchanged, and the function of the task or tool positively changes in some way. At the modification level, technology integration requires a significant redesign of a task. Finally, the redefinition level is achieved when technology is used to create novel tasks (Puentedura, 2014).

The levels of the SAMR model are joined to Bloom's Taxonomy levels (Puentedura, 2014). When the SAMR model is compared to Bloom's Taxonomy (Schrock, 2013), substitution is synonymous to remembering and understanding; augmentation is the equivalent of understanding and applying knowledge gained; modification is the analysis and evaluation stage; and redefinition is the same as the evaluation and creation level (Puentedura, 2014). Therefore, the SAMR integration model reinforces the value of Bloom's Taxonomy (Schrock, 2013).

In a review of the SAMR framework for assessing technology integration for learning, positive benefits such as increased engagement were noted at the substitution and augmentation levels; however, modification and redefinition levels transformed learning at a faster and more meaningful rate. Furthermore, at the redefinition level, learning was, "personalized, situated, and connected" and therefore "purposefully designed" to have the effect of transformative learning (Romrell, et al., 2014, p. 9).

Examples of using the SAMR Model in English Listening Comprehension Classes

Floris and Renandya (2017) suggested some activities which can be used in the English listening comprehension classrooms according to the SAMR model as follows:

1-The Substitution Level

a-Students listen to online dialogues by using computer speakers/headphones provided in their language laboratory.

b-The teacher asks her/his students to type the key words on the computers provided while listening to the recording.

2-The Augmentation Level

a-During the listening process, students are allowed to pause and replay the recordings at their own pace for comprehension.

b-Students are also allowed to check the online transcripts available or check online dictionaries to get better understanding.

3-The Modification Level

a-After listening, students can record their reading by using Voice Comments or Vocaroo applications and submit it to the teacher, who will then share the recording to other students.

b-The recipient is then asked to 'edit' the recording by adding a third character's voice that speaks at least six additional dialogue lines at the beginning and at the end of the conversation. Free online applications such as Audio Joiner may be used in the editing process. The final edited version is then uploaded and shared to the class to get feedback.

4-The Redefinition Level

a-Teacher assigns students to work in pairs and choose a ten to twenty minutes TED Talks video available online. Each student is asked to watch the video and focus on the speaker's main idea. Pauses, replays, and transcript readings may be needed to understand what the speaker says. Each pair then prepares their listening report (summary and reflection) in the form of whiteboard style animation videos. Students may use free applications such as Raw Shorts and PowToon or a paid one such as Video Scribe, Doodly and Easy Sketch Pro.

b-Students upload their video to the classroom blog and share the video to their classrooms through their school's Learning Management System (LMS). Audience's feedback will be used to improve the quality of the video. The best video will later be uploaded to the school's website .

Hypotheses of the Study

1 -There would be statistically significant differences between the mean scores of the experimental group and the control group on the post-Listening Comprehension Test (LCT), in favor of the experimental group.

2 -There would be statistically significant differences between the mean scores of the experimental group on the pre- and the post-LCT.

Aim of the Study

The objective of the current study was to achieve the following: Enhance English listening comprehension of first year General Secondary Stage students by using the SAMR model.

Significance of the Study

The results of the present study could be significant as they might:

1 -offer first year General Secondary Stage students a modern and useful framework represented in the SAMR model to be used for enhancing their English listening comprehension.

2 -direct the attention of General Secondary Stage EFL teachers towards the effectiveness of integrating educational technology guided by the SAMR model on listening comprehension classrooms for enhancing their students' listening comprehension.

3 -provide a suggested vision for EFL supervisors to ensure the usefulness of using educational technology based on implementing the SAMR model in listening comprehension classrooms.

4-encourage curriculum developers to include teaching activities based on implementing educational technology in the light of the SAMR model in the listening comprehension lessons given to first year General Secondary Stage students in order to enhance listening comprehension.

Method

Design of the Study

The present study followed the pre-, post-test quasi-experimental research design which was based on making use of two groups: an experimental group and a control group.

Variables

The independent variable of the present study is the SAMR Model while the dependent variable is first year General Secondary Stage students' listening comprehension.

Definitions of Terms:

Listening Comprehension

Listening comprehension is operationally defined in the current study as the cognitive and inferential process, in which first year General Secondary Stage students at El-Shahed Mohamed Khaled General Secondary School for Boys, Kom Umbo, Aswan Governorate, employ a variety of mental processes to comprehend information from oral texts or extract meaning from language through aural stimuli.

The SAMR Model

In the current study, the SAMR model is operationally defined as a model designed to evaluate and guide technology integration into the first year General Secondary Stage English language classrooms at El-Shahed Mohamed Khaled General Secondary School for Boys, Kom Umbo, Aswan Governorate, by ranking technology integration from the basic form of integration level, substitution, to a more complex level of integration, the redefinition level.

Participants

The participants were first year General Secondary Stage from El-Shahed Mohamed Khaled General Secondary School for Boys, Kom Umbo, Aswan Governorate. They represented two classrooms which were taught by the same teacher. They were randomly selected and assigned into an experimental group (n=32), and a control group (n=32). For equivalence in listening comprehension of the experimental group and the control group before implementing the treatment, the researcher pre-tested them by using the pre-LCT. The researcher taught the experimental group and the control group himself to have a better control of the study variables.

Delimitations of the Study

1 -First year General Secondary Stage students at El-Shaheed Mohammed Khalid General Secondary School for Boys, Kom Umbo, Aswan Governorate.

2 -Six reformulated English listening comprehension lessons from the first year General Secondary Stage Students' Book.

3- Seven weeks during the first term of the school year 2021/2022.

The Listening Comprehension Skills Checklist (Available upon request from the researcher)

Purpose of the Checklist

The researcher designed the listening comprehension skills checklist with the aim of identifying the listening comprehension skills required for first year General Secondary Stage students.

Validity of the Checklist

Validity of the listening comprehension skills checklist was obtained by submitting it to a jury of judges (professors of curriculum and instruction (TEFL) in Egypt) and EFL supervisors and teachers of General Secondary Stage to give their opinions to determine the importance of each skill to first year General Secondary Stage students.

According to the jury members opinions, the final form of the checklist included ten skills. The jury asserted that the final form of the English listening comprehension skills checklist was valid and that the English listening comprehension skills required for first year General Secondary Stage students were clearly identified and categorized.

Instrument (Available upon request from the researcher)

The researcher of the present study designed the following instrument:

- A pre-, post- Listening Comprehension Test (LCT) to assess the listening comprehension of the experimental group and the control group before and after the experiment.

The LCT Validity

In order to validate the LCT, it was submitted to the same jury members to give their opinions and to provide their modifications on the test. The jury members agreed on the LCT items and recommended few modifications to make it valid and appropriate for the purpose it was intended to. All the modifications were taken into consideration and the validity of the LCT was asserted.

The LCT Reliability

In order to assess the reliability of the LCT, it was administered to a pilot group. After the administration, the researcher used the Cronbach Alpha to determine the reliability of the LCT. Cronbach's Alpha showed that the reliability of LCT was 0.76. This value can be trusted and indicated that the LCT was reliable.

Materials of the Study (Available upon request from the researcher)

According to the distribution of the syllabus provided by The Ministry of Education, the experimental group had to learn six units in the first term of the school year (2021/2022). The suggested treatment is a reformulation of the listening comprehension lessons of the Six Units (1, 2, 3, 4, 5, and 6) from the first year General Secondary Stage Students' Textbook (New Hello, English for Secondary Schools, Year One), in addition to one introductory session on the required listening comprehension skills and the SAMR model. The six units are (Getting Away), (Supporting the Community), (Improving Lives), (Making New Friends), (Communication) and (Learning the Literature). Enhancing the required ten English listening comprehension skills was distributed among the six units.

The application of the treatment included the following seven sessions:

- One introductory session on the listening comprehension skills, and the relationship between listening comprehension and the SAMR model.
- Six sessions for the reformulated listening comprehension lessons prescribed for the first year General Secondary Stage students.

Procedures

The Pre-Administration of the LCT

The LCT was pre-administered on 24/10/2021, the experimental group and the control group were given ninety minutes to answer the questions of the test.

Treatment

The sessions were held with the experimental group. The application started on 1/11/2021 and ended on 9/12/2021. The sessions were held once a week for seven weeks. Each session lasted for sixty minutes.

The Post-Administration of the LCT

After applying the suggested treatment to the experimental group, the LCT was post-administered to the experimental group and the control group on 16/12/2021. Post-testing conditions were relatively the same as those of the pre-administration of the LCT.

Results of the Hypotheses of the Study

The First Hypothesis Results

In order to verify the first hypothesis of the present study which stated that there would be statistically significant differences between the mean scores of the experimental group and the control group on the post-LCT, in favor of the experimental group, the t-test for independent two groups was used.

Table 1: The t Value of the Difference between the Mean Scores of the Experimental Group and the Control Group on the Post-LCT

Group	N	Mean	Std. Deviation	t value	t Tabulated Value	Sig.
Control	32	7.3475	2.3683	24.7265	2.660	0.01
Experimental	32	19.4375	1.3425			

Table (1) shows that the t calculated value of the difference between the mean scores of the experimental group and the control group on the post-LCT (24.7265) was significantly higher than the t-tabulated value (2.660) with (60) degrees of freedom at (0.01) level of significance. Thus, there were statistically significant differences between the mean scores of the experimental group and the control group on the post-LCT in favor of the experimental group. Additionally, the experimental group's mean score (19.4375) was higher than the control group's mean score (7.3475) on the post-LCT. This is a highly significant difference which showed that the experimental group attained remarkable higher scores than the control group on the post-LCT. Hence, the first hypothesis of the study was accepted, and the enhancement of the experimental group's listening comprehension was due to the training they received by using the SAMR model.

The Second Hypothesis Results

In order to verify the second hypothesis of the present study which stated that there would be statistically significant differences between the mean scores of the experimental group on the pre- and the post-LCT, the researcher used the one sample t-test.

Table 2: The t Value of the Difference between the Mean Scores of the Experimental Group in the Pre- and the Post-LCT

Test	N	Mean	Std. Deviation Difference	t value	t Tabulated Value	Sig.
Pre-Test	32	7.3750	2.3657	34.1351	2.704	0.01
Post-Test	32	19.4375	1.3425			

Table (2) revealed that the t calculated value of the difference between the mean scores of the experimental group on the pre- and the post-LCT (34.1351) was significantly higher than the t tabulated value (2.704) with (31) degrees of freedom at (0.01) level of significance. Thus, there was a statistically significant difference between the experimental group's mean scores on the pre- and the post-LCT, in favor of the post-LCT. Hence, the second hypothesis of the study was accepted.

Additionally, the results of applying the effect size formula showed that, the effect size of using the SAMR model on enhancing listening comprehension of experimental group was (0.9740) which is higher than the value of the large effect size (0.8). This means that using the SAMR model had a large effect size on enhancing the experimental group's listening comprehension.

Moreover, the researcher used the Blake formula to ensure the effectiveness of using the SAMR model on enhancing listening comprehension of the experimental group. (Morad, 2000, p. 248).

Using the Blake formula showed that the gain ratio was (1.2218) which is more than (1.2), the accepted level of the effectiveness. This shows that using the SAMR model was effective in enhancing listening comprehension of the experimental group. So, the present study fulfilled its aim regarding enhancing listening comprehension of the experimental group.

Discussion of the Results:

The results of the post-test indicated that using the SAMR model had a large effect size on listening comprehension. The results also indicated accepted gain ratio of effectiveness. It was due to some expected good reasons as follows:

Using the SAMR model represented an innovative and systematic way of using technology which led to an outstanding advancement in teaching listening comprehension, and the SAMR model proved to be motivating and effective. Using the SAMR model integrated teaching, learning, and technology within the English language classroom which helped the experimental group comprehend better while listening, imagine and draw pictures inside their brains and transform these pictures to stored data that is easier to be remembered when they need them. In addition, the insertion of visual aids, videos, and the use of colors according to the SAMR model levels created a creative, and exciting learning environment.

The SAMR helped to include many technological aids which evoked the experimental group's motivation and engagement and shifted the focus from the teacher to students and this led to better learning as the students were engaged in the process of discovery. It also could create a good atmosphere in teaching-learning process in order to make students motivated to learn and interested during the teaching-learning process.

In line with the experimental group's growing interest in listening, the researcher found that the experimental group actively involved in discussing the listening activities. They were enthusiastic to respond in the lessons because by using guided technology the students could comprehend the content of the texts and memorize again the information while they were actively listening. Due to all the above mentioned points, the researcher realized that, most of the students had more than enough ability in comprehending the content of listening texts presented by the researcher through using the program. The result

of the superiority of the experimental group on the post-LCT came in accordance with those of Rahimi and Soleymani (2015), Pfaffe (2017), Savignano (2017), Sehati and Khodabandehlou (2017), and Alodwan and Almosa (2018). Those studies highlighted the importance of using technology in general in teaching listening comprehension.

Conclusions

It can be concluded from the present study that using the SAMR model as a framework helped the experimental group enhance their listening comprehension.

Recommendations

Based on the results and conclusions of the present study, the following recommendations are suggested:

1 -The importance of using educational technology based on the SAMR model at EFL classrooms for enhancing listening comprehension should be considered in General Secondary Stage in Egypt.

2 -EFL teachers should use the SAMR model as it enables students to feel motivated and this leads them towards enjoying listening comprehension lessons.

3 -EFL teachers should attend training courses that enable them to use modern technological methods guided and controlled by the SAMR model in teaching to help students be more motivated and more active to enhance English language skills.

REFERENCES

Alodwan, T., & Almosa, M. (2018). The Effect of a Computer Program Based on Analysis, Design, Development, Implementation and Evaluation (ADDIE) in Improving Ninth Graders' Listening and Reading Comprehension Skills in English in Jordan. *English Language Teaching*, 11(4), 43 – 51. <https://doi.org/10.5539/elt.v11n4p43>

- Amer, H., & Ibrahim, W. (2014). Using the iPad as a Pedagogical Tool to Enhance the Learning Experience for Novice Programing Students. In *Global Engineering Education Conference (EDUCON), 2014 IEEE* (178-183). doi:10.1109/EDUCON.2014.6826087.
- Brown, H. (2004). *Language Assessment Principles and Classroom Practices*. New York: Pearson Education, Inc
- Buck, G. (2001). *Assessing Listening*. New York, Cambridge: Cambridge University Press
- Cadime, I., Rodrigues, B., Santos, S., Viana, F., Chaves-Sousa, S., do Céu Cosme, M., & Ribeiro, I. (2017). The Role of Word Recognition, Oral Reading Fluency and Listening Comprehension in the Simple View of Reading: A study in an Intermediate Depth Orthography. *Reading and Writing: An Interdisciplinary Journal*, 30(3), 591-611.
- El-Dib, M. (2018). Using the Interactional Approach for Developing Listening Comprehension Skills and Attitudes towards English as a Foreign Language among Secondary School Students. M.Ed. Thesis, Faculty of Education, Banha University, Egypt.
- El-Shourbagy, M. (2017). The Impact of a CALL Program on Developing EFL Secondary Stage Students Reading and Listening Comprehension Skills and Motivation. Ph.D. Dissertation, Faculty of Education, Mansoura University, Egypt.
- Eltawila, M. (2009). *The Neglect of Listening Activities among Egyptian Preparatory School of EFL Teacher*. M.A., Thesis. Tanta University, Egypt.

- Floris, F., & Renandya, W. (2017). Transforming the Teaching of Listening and Reading Using the SAMR Model. *Modern English Teacher*, 26(4), 41-44. Doi: <https://dialnet.unirioja.es/servlet/articulo?codigo=6179336>
- Flowerdew, J & Miller, L (2005). *Second Language Listening: Theory and Practice*. Cambridge: Cambridge University Press.
- Gad, D. (2018). The Effectiveness of a Program Based on Dogme Approach in Developing Governmental Language Secondary School Students' EFL Listening and Speaking Skills. Ph.D. Dissertation, Faculty of Education, Menoufia University, Egypt.
- Gilakjani, P. & Ahmadi, M. (2011), A Study of Factors Affecting EFL Learners' English Listening Comprehension and the Strategies for Improvement. *Journal of Language Teaching and Research*, 2 (5), 977-988. doi:10.4304/jltr.2.5.977-988
- Kim, Y., & Pilcher, H. (2016). What is Listening Comprehension and What Does It Take to Improve Listening Comprehension? In R. Schiff & M. Joshi (Eds.), *Handbook of interventions in learning disabilities* (pp. 159–174). Springer.
- Kurbaniyazov, I. (2018). SAMR Different? ETP, 116, 55–57. Retrieved September 11, 2019, from <https://www.researchgate.net/publication/331703544>
- Lingzhu, J. (2003). Listening Activities for Effective Top-down Processing, Taiyuan Normal University (China). *The Internet TESL Journal*, 10, (11), 2003. Available in: <http://iteslj.org/Techniques/Lingzhu-Listening.html>

- Lobo, A., & Jiménez, R. (2017). Evaluating Basic Grammar Projects, Using the SAMR Model. *LETRAS*, 61, 123-151. Doi: <http://dx.doi.org/10.15359/rl.1-61.5>. Retrieved August 15, 2019, from https://www.researchgate.net/publication/321450921_Evaluating_Basic_Grammar_Projects_Using_the_SAMR_Model_La_evaluacion_de_proyectos_de_Gramatica_Basica_segun_el_modelo_SAMR
- Millrood, (2001). *Teaching to Listen*. Modular Course in ELT Methodology. Tambov: Publishing House of Tambov State University
- Muhammed, M. (2019). *The Effectiveness of an EFL Brain Based Learning Program in Enhancing Listening and Reading Comprehension Skills of Secondary School Students with Different Learning Styles*. Ph.D. Dissertation, Faculty of Education, Minia University, Egypt.
- Pfaffe, L. (2017). Using the SAMR Model as a Framework for Evaluating MLearning Activities and Supporting a Transformation of Learning. (Unpublished doctoral dissertation). The School of Education, ST. John's University, New York, USA.
- Puentedura, R. (2006). *Transformation, Technology, and Education*. Retrieved from http://hippasus.com/resources/tte/puentedura_tte.pdf
- Puentedura, R. (2013). SAMR: Moving from Enhancement to Transformation [Web log post]. Retrieved from <http://www.hippasus.com/rrpweblog/archives/000095.html>

- Puentedura, R. (2014a). *Building Transformation: An Introduction to the SAMR Model* [Blogpost]. Retrieved from http://www.hippasus.com/rrpweblog/archives/2014/08/22/BuildingTransformation_AnIntroductionToSAMR.pdf
- Puentedura, R. (2014b). *SAMR in the Classroom*. Retrieved from <http://www.hippasus.com/rrpweblog/archives/2014/08/27/SAMRInTheClassroom.pdf>.
- Rahimi, M., & Soleymani, E. (2015). The Impact of Mobile Learning on Listening Anxiety and Listening Comprehension. *English Language Teaching*, 8(10), 152–161. <https://doi.org/10.5539/elt.v8n10p152>
- Richards, J. (2005). *Second Thoughts on Teaching Listening*. RELC, Singapore/Macquarrie University, Sydney [RELC 36.1 (2005) 85-92] DOI: 10.1177/0033688205053484
- Richards, J. (2008). *Teaching Listening and Speaking: From Theory to Practice*. Cambridge: Cambridge University Press.
- Romrell, D., Kidder, L., & Wood, E. (2014). The SAMR Model as a Framework for Evaluating MLearning. *Journal of Asynchronous Learning Networks*, 18(2).
- Santiago, M. (2017). The Use of the SAMR model to Improve EFL Students' Willingness to Communicate. MA. Thesis. Retrieved August 15, 2019

- Savignano, M. (2017). Educators' Perceptions of the Substitution, Augmentation, Modification, Redefinition Model for Technology Integration. (Unpublished Doctoral Dissertation). College of Education and Behavioral Sciences, School of Teacher Education.
- Schrock, K. (2013). *SAMR Model Musings* [Web log post]. Retrieved from <http://blog.kathyschrock.net/2013/11/sarm-model-musings.html>
- Sehati, S., & Khodabandehlou, M. (2017). Effect of Power Point Enhanced Teaching (Visual Input) on Iranian Intermediate EFL Learners' Listening Comprehension Ability. *Journal of Educational Issues*, 3(2), 29–42. <https://doi.org/10.5296/jei.v3i2.12323>
- Tubail, M. (2015). *The Effectiveness of a Suggested Program in Developing the Eighth Graders' Listening Comprehension Skills and Their Attitudes towards Listening*. MA Thesis. Faculty of Education, The Islamic University, Gaza
- Vandergrift, L. (2004). Listening to Learn or Learning to Listen? In Cambridge University Press (Ed.), *Annual Review of Applied Linguistics* (2004) (pp. 3-25) Cambridge University Press, USA. <http://dx.doi.org/10.1017/S0267190504000017>
- Vanderplank, R. (2014). *Listening and understanding*. In P. Driscoll, E. Macaro & A. Swarbrick (Eds.), *Debates in Modern Languages Education*. Abingdon, United Kingdom: Routledge.