Utilizing an ICT Linguistic Life Skills Based Program to Improve Secondary Stage Students' EFL Phonological Awareness and Self-confidence

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Abstract:
This research aimed at studying the effect of an ICT linguistic life skills based program on improving secondary stage students' EFL phonological awareness and self-confidence. The participants of this research were (60) second year secondary stage students at El-Shaheed Mahmoud El-Shafie Zayed Secondary School for Boys and Girls, Tala, Menoufia, Egypt. The research adopted the quasi-experimental design using two groups: an experimental group (n = 30), and a control one (n = 30). To collect data, the researcher used two instruments: an EFL phonological awareness skills test, and a self-confidence scale. The experimental group was taught through the ICT linguistic life skills based program by using teacher’s guide designed by the researcher, while the control group was taught through the regular method of teaching. Results revealed that there were statistically significant differences between the mean score of the experimental group and the control group students in both the EFL phonological awareness and the self-confidence scale in favor of the experimental group. Moreover, the effect size of the program was found to be high. Thus, this research recommends utilizing the ICT linguistic life skills based program in teaching the four skills of the English language at different educational stages.

Keywords: ICT Linguistic Life Skills Based Program, EFL Phonological Awareness Skills, Self-Confidence.

Introduction:
English is the most commonly spoken language all over the world. The use of English as a global language is growing with time because it is language of science, technology, media, tourism, business, diplomacy, culture, and countless other areas. Not only is it important as a prerequisite requirement to move from one educational level to another, it is also essential to achieve the social mobility that almost all individuals seek.

Pronunciation is one of the key elements of communication that should be given equal importance like vocabulary, grammar, reading, writing, and speaking Gilakjani (2012). Therefore, Clear awareness of phonological features helps the students draw a connection between spoken language and written symbols (Goldsworthy & Pieretti, 2012). It is worth mentioning that phonological awareness is related to students’ self-
confidence. Having good pronunciation promotes one’s confidence and reveals good image of the speaker (Shah, Othman & Senom, 2017). According to (Mustafa, 2015), self-confidence is like the foundations of a building; if they are not enough, even the best technology will be insufficient to build solid walls over them.

Adalikwu (2012) emphasized that self-confidence represented the belief that a person has in their ability to succeed at a task, based on whether or not they have been able to perform that task in the past. Hence, EFL Students’ self-confidence refers to the motivation built up to grow the positivity toward English, that leads to the language achievement, learning enjoyment, and willingness to communicate (Lou, Noel, 2018). In addition, Kakepoto (2012) affirmed that confidence is an essential aspect of any good presentation. It provides impetus to speakers to communicate his or her ideas effectively.

As a result, the framework for New Hello! English for Secondary Schools course in Egypt has been entirely redeveloped to give students the necessary confidence and experience to apply the necessary language, thinking and study skills both inside and outside the classroom and beyond school in their current and future lives (New Hello! Teacher’s Guide Introduction, 2022).

Hence, the present study aimed at examining the use of ICT linguistic life skills based program to improve secondary stage students’ EFL phonological awareness skills and self-confidence.

Statement of the Problem:

To come to a closer identification of the problem, the researcher conducted a pilot study through administering an EFL phonological awareness test and self-confidence scale to a randomly chosen sample (n=18) of second year secondary school students. Results showed that students faced problems in English phonological awareness at both the segmental and supra-segmental levels. The reason may be due to lack of sufficient speaking practice and no speaking tests in the mid-year exam or at the final exam. Pronunciation instruction has been overlooked by some teachers due to lack of time, lack of confidence, lack of phonological knowledge, and uncertainty about how to teach pronunciation (Gilakjani, 2012; Farhat & Dzakiria, 2017; Reid 2014; Derwing & Munro, 2015). Moreover, the students’ responses to the self-confidence scale showed that they experience a low state of self-confidence while practicing English tasks. These results are in line with previous literature: EL-Gendy, 2022; Abdulallah, 2018; Moftah, 2012; Mohamed, 2019.
Based on the previous review of literature, the researcher's experience in the field of TEFL, and the results of the pilot study, the problem of the study was stated as follows: “Secondary stage students’ EFL phonological awareness and self-confidence are in need to be enhanced in order to create proficient language learners.”

Questions of the study

The research problem was formulated in the following main question: “What is the effectiveness of utilizing an ICT linguistic life skills based program on improving secondary stage students’ EFL phonological awareness and self-confidence?”

Consequently, the following sub-questions were derived from the above main one:

1. What are the EFL phonological awareness skills needed to be improved for the secondary stage students through utilizing the proposed ICT linguistic life skills based program?
2. To what extent do secondary stage students master EFL phonological awareness skills?
3. To what extent do secondary stage students have EFL self-confidence?
4. What is the framework of the proposed ICT linguistic life skills based program which may help in improving secondary stage students’ EFL phonological awareness and self-confidence?

Purpose of the Study

The study aimed to achieve the following objectives:

1. Specifying suitable EFL phonological awareness skills needed to be improved for the secondary stage students.
2. Specifying suitable EFL self-confidence characteristics needed to be improved for secondary stage students.
3. Designing the ICT linguistic life skills based program utilized for improving secondary stage students’ EFL phonological awareness and self-confidence.
4. Measuring the effectiveness of the proposed ICT linguistic life skills based program on improving secondary stage students’ phonological awareness.
5. Investigating the effectiveness of the proposed ICT linguistic life skills based program on improving secondary stage students’ EFL self-confidence.
Hypotheses of the Study

This study attempted to verify the following hypotheses:

1. There is a statistically significant difference at \((\leq 0.05)\) level between the mean score of the experimental group and that of the control group on the post administration of the EFL phonological awareness skills test in favor of the experimental group.

2. There is a statistically significant difference at \((\leq 0.05)\) level between the mean score of the experimental group on the pre and post administration of the EFL phonological awareness skills test in favor of the post administration.

3. There is a statistically significant difference at \((\leq 0.05)\) level between the mean score of the experimental group and that of the control group on the post administration of the EFL self-confidence scale in favor of the experimental group.

4. There is a statistically significant difference at \((\leq 0.05)\) level between the mean score of the experimental group on the pre and post administration of the EFL self-confidence scale in favor of the post administration.

Significance of the Study

The significance of the present study could be observed in what it will offer to the following concerned parties:

1. **As for the secondary stage students:**
   a) It may motivate them to improve their EFL phonological awareness.
   b) It may promote their EFL self-confidence.
   c) It may promote their EFL life skills to become fully productive individuals.
   d) It may provide them with strategies to meet out the challenging situations and make healthy choices that contribute to a meaningful life.

2. **As for the EFL teachers and supervisors:**
   a) It may pave the way for modifying their perspectives that EFL teaching should serve the ultimate goal of education which is preparing students for leading a successful life in the future not only for passing the exam.
   b) It might also help them adopt a more developmental awareness towards the smart electronic devices in classrooms, which could be used effectively through adopting an ICT linguistic life skills based program to improve EFL skills.
   c) It offers an ICT linguistic life skills based program that can help improve secondary students’ EFL phonological awareness and self-confidence.
(3) **As for the EFL researchers and curriculum designers:**

a) It may enrich literature of integrating modern educational technology and linguistic life skills in EFL teaching due to the lack of the previous studies which deal with the implementation of an ICT linguistic life skills based program for improving EFL phonological awareness and self-confidence, especially with the lack of studies that dealt with this topic.

b) It may help them appreciate the importance of self-confidence in the EFL production.

c) It may direct their attention to rethink about the conventional EFL learning approaches so that secondary students’ needs of EFL phonological awareness and self-confidence are met.

**Delimitations**

This study was applied in a harmony with the following delimitations:

a) Sixty 2nd year general secondary students enrolled at El-Shaheed Mahmoud El-Shafei Zayed Governmental Secondary School for Boys and Girls, Tala Educational Governorate, Menoufia Governorate.

b) Some EFL phonological awareness skills were identified through the content of "New Hello! English for Secondary Schools" and decided upon by jury members.

c) Some EFL self-confidence domains required for the second year students at the secondary stage and identified through the content of "New Hello! English for Secondary Schools" and decided upon by the jury members.

d) A limited duration for seven weeks in the second term of scholastic year 2022-2023, in addition to another two weeks for the pre-post test and scale.

d) Some life skills provided from four units (8-9-10-11) of the Student’s Book entitled, "Hello! English for Secondary Schools: Year Two".

**Review of Literature and Related Studies**

Phonological awareness has a natural link with other aspects of language skills like; listening, speaking, reading, etc. That is why it is considered to be a key component in the process of learning a foreign language (Alshammari, 2015). In the same framework, Dixon (2011) asserted that discovering language lexical form is based on the phonetic information used by the speaker. In the process of decoding the phonetic information, subconsciously listeners do a word processing. The spoken utterances will be decoded into its smallest part, so the listener will try to
understand the conveyed meaning by their understanding of phonological knowledge and awareness.

Furthermore, Rokhman, Lintangsari, & Perdhani (2020) emphasized that having a good level of phonological awareness can increase foreign language learners’ accuracy level on word reading and spelling. Phonological awareness has an impact on literacy acquisition. Then, phonemic awareness strengthens the prediction by segmenting the word, so the listener will recognize the exact word being heard. Afterward, when it comes to literacy acquisition, with the help of the phonological and phonemic awareness, it will increase the vocabulary knowledge. Moreover, possible pathway to learn writing skills including learning to write words in oral vocabulary, memorizing spelling of whole words, or analyzing sounds of words is through the understanding of phonological awareness and its used to map sounds into symbols (Dixon, 2011).

Indeed, having good pronunciation promotes one’s confidence and reveals good image of the speaker (Shah, Othman & Senom, 2017). Self-confidence is one of the keys to the successful development of literacy, language, and numeracy skills through the skills for life. Without self-confidence, no language learning activities will be carried out successfully (Al-Hebaish, ٢٠٢١). When learners have strong trust in their capacities, they will make them easier to learn and engage in their tasks without any obstacles in their performance which may hinder their performance (Sara, 2015).

Self-confidence is the key to success in English speaking skills (Hasan, Hanafi & Sadapotto, 2020). EFL students who are confident in their abilities are able to overcome their fears and negative thoughts so that they will speak English fluently (Kinasih & Olivia, 2022). Nevertheless, EFL students experienced a lack of confidence in communicating. When they had a dialogue with their peers, they were afraid of making mistakes in the use of grammar, pronunciation, or vocabulary. This caused pressure on EFL students, and they could not express ideas simply. Therefore, EFL students did not become optimistic people in improving skills and were reluctant to interact. The students who did not have self-confidence, they would not dare to speak English fluently (Hasan, Hanafi & Sadapotto, 2020).

One of the methods that could be used to improve students’ EFL phonological awareness skills and self-confidence is utilizing an ICT linguistic life skills based program. ICT links teaching and learning processes with change and improvement in educational quality, these qualities can be found in enhancing thinking and inter thinking, finding,
processing, conveying and sharing information (Aldama & Pozo, 2016). In the same perspective, Quora (2017) states that students prefer technology because they believe that it makes learning more interesting and fun.

In the same vein, Amer & Singha (2023) assured that life skills are necessary to empower learners to cope with their life successfully and its challenges and prepare them to understand and respond appropriately to daily events. Therefore, thoughtful integration of life skills topics into the curricula can sensitize learners to future actualities and improve values and skills needed for cooperation with others.

According to Javrh and Mozina (2018), the main advantages of well-developed life skills are: (a) the autonomy and self-efficacy of an individual, (b) the equipment of an individual with basic essential capabilities to face real-life challenges, (c) the empowerment of an individual (with resilience and the individual's health and well-being), (d) improving social inclusion and gaining civic competences (regarding the experience that an individual can contribute to society and the environment by engaging in civic issues and organizing common activities), (e) increasing participation of individuals in the labour market, (f) the positive impact of well-developed life skills on the local community – through knowledge sharing, teaching children and actual physical and emotional support for significant others and wider, (g) the motivation of an individual to engage in further learning and a positive learning experience.

Finally, the researcher depended on the previous studies to build the instruments as well as the activities in the e-learning environment.

**Methodology**

**Participants of the Study**

A group of sixty-second-year secondary school students (n = 60) were randomly selected from El-Shaheed Mahmoud El-Shafei Zayed Secondary School for Boys and Girls in Tala city, Menoufia Governorate, in the academic year 2022/2023. The participants were divided into two groups: experimental (n = 30) and control (n = 30).

The participants constituted a homogeneous group in terms of their schooling and English language proficiency in accordance with the statistical treatment of their results in the first term of the school year (2022-2023). The students in both groups were chosen from the same school to be as equivalent as possible in the social, cultural, economic and academic levels.
Design of the Study

The research adopted the quasi-experimental design because of its relevance to the nature of the research. The participants were divided into two groups: experimental and control. The experimental group was taught through using the proposed ICT linguistic life skills based program to improve their EFL phonological awareness and self-confidence. At the same time, the control group continued to study according to the regular method, the prescribed method in the Teacher's Guide of the Ministry of Education. The following figure illustrates the quasi-experimental design of the research.

Instruments and Materials of the Study

The present research made use of the following instruments, which were developed by the researcher and validated by the jury members:

1. The EFL phonological awareness skills checklist.
2. The EFL phonological awareness test with a scoring rubric to measure students’ phonological awareness skills during the pre-post-test.
3. The EFL self-confidence scale.
4. The ICT linguistic life skills based program aimed to improve secondary stage students’ EFL phonological awareness and self-confidence.

Procedures:
The procedures were summarized as follows:

1. Reviewing related literature and previous studies concerning ICT and linguistic life skills, and their effect on EFL phonological awareness skills and self-confidence.
2. Deciding on the EFL phonological awareness skills and self-confidence domains required for 2nd year secondary students by counselling specialists.
3. Preparing a checklist of the EFL phonological awareness skills and submitting/introducing it to a group of specialists in the field of EFL and ELT such as Professors, teachers and supervisors to decide on its appropriateness.

4. Determining the instruments used through the study the EFL phonological awareness skills, pre and post EFL phonological awareness test, pre and post self-confidence scale.

5. Assuring the validity and the reliability of the checklist, the test and the scale through:
   a. Consulting with a panel of specialists and experts.
   b. Applying the test on a pilot sample who have the same characteristics of the study sample and the findings were documented.
   c. Finding out the internal consistency coefficient using Pearson formula.
   d. Estimating the reliability using Split half and Alpha Cronbach formula.
   e. Identifying the difficulty and the discrimination coefficients.

6. Designing the suggested program based on ICT linguistic life skills to improve students' phonological awareness skills and their self-confidence.

7. Nominating the participants of the study and dividing the sample equally into the experimental group and the control one.

8. Applying the pre-test and the pre-self-confidence scale on the samples of the study and computing the results.

9. Implementing the suggested program for the experimental group while the control one is taught via the regular method.

10. Applying the post-test and the post-scale on the samples.

11. The findings of the test and the self-confidence scale were collected, computed, and analysed through the Statistical Package for Social Sciences (SPSS) program.

The Treatment

The researcher designed an ICT linguistic life skills program for improving secondary stage students' EFL phonological awareness skills and their self-confidence. The program consists of seven short-term lessons. They have taken titles according to the theme of the units in the students'
book and the life skills included in each unit as shown in the following table (1).

**Table (1): The Program content**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Unit Title</th>
<th>Life Skill</th>
<th>Phonological Awareness Skills</th>
<th>Self-Confidence Domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>High-tech Transport</td>
<td>Critical thinking</td>
<td>Syllable Awareness</td>
<td>General Self-Confidence</td>
</tr>
<tr>
<td>8</td>
<td>High-tech Transport</td>
<td>Problem Solving</td>
<td>Rhyme Awareness</td>
<td>General Self-Confidence (Cont.)</td>
</tr>
<tr>
<td>8</td>
<td>High-tech Transport</td>
<td>Respect</td>
<td>Phonemic Awareness</td>
<td>Situational Self-Confidence (Cont.)</td>
</tr>
<tr>
<td>9</td>
<td>Conservation</td>
<td>Negotiation</td>
<td>Stress Awareness</td>
<td>Situational Self-Confidence (Cont.)</td>
</tr>
<tr>
<td>9</td>
<td>Conservation</td>
<td>Decision Making</td>
<td>Stress Awareness (Cont.)</td>
<td>Speaking Self-Confidence</td>
</tr>
<tr>
<td>10</td>
<td>The News</td>
<td>Self-management</td>
<td>Intonation Awareness</td>
<td>Speaking Self-Confidence (Cont.)</td>
</tr>
<tr>
<td>11</td>
<td>What a performance!</td>
<td>Effective Communication</td>
<td>Intonation Awareness (Cont.)</td>
<td>Speaking Self-Confidence (Cont.)</td>
</tr>
</tbody>
</table>

**Definition of Terms**

**ICT**

In this study, information and communication technology (ICT) was operationally defined as set of steps which highlights interaction and collaboration and is based on technological devices that foster information and communication among learners.

**Life Skills**

The current study defined life skills as a set of linguistic interpersonal, thinking and emotional competencies learners should master to be able to communicate effectively and live an independent life.

**ICT Linguistic Life Skills Based Program**

The researcher defined the proposed ICT linguistic life skills based program as a group of well-planned linguistic life skills based activities, interactive strategies, and procedures which were designed on MOODLE platform to improve secondary stage students’ EFL phonological awareness and self-confidence.

**Phonological Awareness**

The current study defined it as the EFL conscious abilities to perform the following phonological skills: recognizing parts or segments of syllables that comprise the rhythm of the word, distinguish between words that have regular re-occurrence of similar sounds especially final sound of words, focusing on and manipulate individual speech sounds (phonemes) in
spoken words, putting emphasis or change in pitch while pronouncing a specific syllable in a word as well as sentences, and changing the tone in a person's voice when sounding out particular words.

**Self-Confidence**

It was operationally defined as the secondary school students' belief and trust in their own EFL abilities to accomplish given tasks effectively and achieve a desired objective without being anxious while speaking and interacting with others.

**Data Analysis and Results**

The results are shown according to the effect of the independent variable (The ICT linguistic life skills based program) on the dependent variables of the study (EFL phonological awareness skills, and Self-confidence).

**Verifying the EFL Phonological Awareness Skills Hypotheses**

(A) **Comparison of the control and experimental groups' performance on the post administration of the EFL phonological awareness skills test**

The first hypothesis stated that “There is a statistically significant difference at ≤ (0.05) level between the mean scores of the control group and that of the experimental one on the post administration of the EFL Phonological Awareness test in favor of the experimental group”.

To verify this hypothesis, the t-test was used to compare the difference between the mean scores of the two groups. The Results are presented in table (2).

<table>
<thead>
<tr>
<th>Skill</th>
<th>Groups</th>
<th>N.of cases</th>
<th>Means</th>
<th>S.D</th>
<th>t.Value</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All EFL Phonological Awareness</td>
<td>Control</td>
<td>30</td>
<td>34.13</td>
<td>9.66</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>30</td>
<td>55.77</td>
<td>5.36</td>
<td>10.729</td>
<td>58</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Table (2) shows that the value of total EFL phonological awareness mean score of the experimental group was (55.77) which is higher than that of the mean score of the control group which was (34.13). This indicates that the experimental group members outperformed their peers in the control group on the post application of the EFL phonological awareness pre-posttest due to utilizing the ICT linguistic life skills based program. It also indicated a higher homogeneity (=Std. Deviation \ Mean) of the
experimental group’s grades than the grades of the control group due to the application the ICT linguistic life skills based program.

A closer look at the table (2) reveals that the calculated value of "t" equals (10.729) which is higher than the tabulated value of "t" with 58 degrees of freedom and significant level "0.01". This reflects that the difference between the mean scores of the two groups reached the level of statistical significance.

Based on this, it can be concluded that the proposed ICT linguistic life skills based program was effective in improving the target EFL phonological awareness subskills as a whole and was very beneficial for most of the subskills. Therefore, the first hypothesis of the study was verified and accepted.

(B) Comparison of the Control and Experimental Groups' Performance on the Post Administration of the EFL Phonological Awareness Skills Test

The second hypothesis stated that “There is a statistically significant difference at ≤ (0.05) level between the mean scores of the experimental group on the pre- and post-administrations of the EFL Phonological Awareness test in favor of the post-administration”.

To test this hypothesis, the data obtained were treated statistically using the descriptive (Means and Standard Deviations) and (Paired Samples Test t-test) statistics. Table (3) shows the results.

<table>
<thead>
<tr>
<th>Skill</th>
<th>Application</th>
<th>N.of cases</th>
<th>Means</th>
<th>S.D</th>
<th>t.Value</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All EFL Phonological</td>
<td>Post-test</td>
<td>30</td>
<td>55.77</td>
<td>5.36</td>
<td>23.626</td>
<td>29</td>
<td>0.001</td>
</tr>
<tr>
<td>Awareness</td>
<td>Pre-test</td>
<td>30</td>
<td>29.03</td>
<td>5.10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table (3) shows that the value of EFL phonological awareness mean score of the posttest was (55.77) which is higher than that of the pretest which was (29.03). Table (3) also reveals that the posttest scores were higher than those of the pretest in EFL phonological awareness test. In addition, it indicated a higher homogeneity (=Std. Deviation \ Mean) of the posttest's grades than the grades of the pretest due to the application of the ICT linguistic life skills based program.

Table (3) indicated that there is a significant difference between the overall mean scores of the pre- posttest administrations of EFL phonological
awareness test in favor of the post test. t-value was (23.626) which is significant at the (0.01) level in favor of the posttest.

**Determining the Effect Size**

To investigate the effect size the results, the value of ETA squared ($\eta^2$) and the effect size (d) were calculated using the following equation

$$\eta^2 = \frac{t^2}{t^2 + d.f}$$

**Table (4): Reference Standards of ($\eta^2$) and (D) Values**

<table>
<thead>
<tr>
<th>Test</th>
<th>Effect Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small</td>
</tr>
<tr>
<td>$\eta^2$</td>
<td>0.01</td>
</tr>
<tr>
<td>D</td>
<td>0.2</td>
</tr>
</tbody>
</table>

**Table (5): Effect Size of the Treatment on Improving the EFL Phonological Awareness of the Experimental Group**

<table>
<thead>
<tr>
<th>Skill</th>
<th>t-value</th>
<th>d.f</th>
<th>Sig</th>
<th>$\eta^2$</th>
<th>d</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>All EFL Phonological Awareness</td>
<td>23.626</td>
<td>29</td>
<td>Significant at (0.01)</td>
<td>0.95</td>
<td>4.39</td>
<td>Large</td>
</tr>
</tbody>
</table>

As shown in table (5), ETA squared was (0.95) reflecting its practical significance. Therefore, it can be said that 95% of the variations between the scores of students in the EFL phonological awareness could be ascribed to utilizing the ICT linguistic life skills based program. The effect size (d) equals (4.39) and that was high effect and educational important for improving and developing EFL phonological awareness.

Therefore, it is evident that the ICT linguistic life skills based program made a significant difference in the use of the EFL speaking skills of the experimental group. Consequently, the second hypothesis was verified and accepted.

**Verifying Self-confidence Hypotheses**

**A) Comparison of the control and experimental groups' performance on the post administration of the self-confidence scale**

The third hypothesis stated that "There is a statistically significant difference at $\leq (0.05)$ level between the mean scores of the control group and that of the experimental one on the post administration of the self-confidence scale in favor of the experimental group”
To verify this hypothesis, t-value was calculated for comparing the difference between the mean scores of the two groups. This is illustrated in table (6).

**Table (6): Comparing the Level of the Control and Experimental Groups on the Post-Administration of the Self-Confidence Scale**

<table>
<thead>
<tr>
<th>Domain</th>
<th>Groups</th>
<th>N.</th>
<th>Means</th>
<th>S.D</th>
<th>t.Value</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Self-Confidence</td>
<td>Control</td>
<td>30</td>
<td>100.90</td>
<td>17.26</td>
<td>12.756</td>
<td>58</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>30</td>
<td>149.80</td>
<td>11.96</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A closer look at table (6) reveals that the value of self-confidence mean score of the experimental group was (149.80) which is higher than that of the mean score of the control group which was (100.90). It also indicated a higher homogeneity (=Std. Deviation/Mean) of the experimental group's grades than the grades of the control group due to the application of the ICT linguistic life skills based program.

It is clear from table (6) that the calculated value of "t" (= 12.756) which is higher than the tabulated value of "t" with (58) degrees of freedom and significant level "0.01". This reflects that the difference between the mean scores of the two groups reached the level of statistical significance. Consequently, the third hypothesis was verified and accepted.

**B) Comparison of the experimental group level on the pre and post administration of the self-confidence scale**

The fourth hypothesis stated that "There is a statistically significant difference at ≤ (0.05) level between the mean scores of the experimental group on the pre- and post-administrations of the Self-confidence scale in favor of the post-administration."

To verify this hypothesis, the t-scale for paired samples, and the descriptive means and standard deviations were used to compare the difference between the mean score of the experimental group students in the self-confidence scale before and after implementing the ICT linguistic life skills based program. The results are as shown in Table (7).

**Table (7): Comparing the Level of the Experimental Group on the Pre-Post Administration of the Self-confidence Scale**

<table>
<thead>
<tr>
<th>Domain</th>
<th>Application</th>
<th>N.of cases</th>
<th>Means</th>
<th>S.D</th>
<th>t.Value</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Self-Confidence</td>
<td>Post-test</td>
<td>30</td>
<td>149.80</td>
<td>11.96</td>
<td>22.080</td>
<td>29</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Pre-test</td>
<td>30</td>
<td>95.37</td>
<td>10.37</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Results in table (7) illustrates that the mean scores of the self-confidence post-administration of the scale was (149.80) which is higher than that of the pre-administration which was (95.37). It also indicates a higher homogeneity (=Std. Deviation \ Mean) of the post-administration grades than the grades of the pre-administration due to utilizing the ICT linguistic life skills based program. It also reveals that the total t-value was (22.08) which is significant at the (0.01) level in favor of the post-administration. These results supported that there is a significant difference between the overall mean scores of the pre-post-administrations of the self-confidence scale in favor of the post-administrations.

**Determining the Effect Size**

To investigate the effect and the educational importance of the results, the value of ETA squared ($\eta^2$) and the effect size (d) were calculated.

**Table (8): Effect Size of the Treatment on Improving the Self-Confidence of the Experimental Group**

<table>
<thead>
<tr>
<th>Domain</th>
<th>t-value</th>
<th>d.f</th>
<th>Sig.</th>
<th>$\eta^2$</th>
<th>d</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Self-Confidence</td>
<td>11.357</td>
<td>29</td>
<td>Sig. at (0.01)</td>
<td>0.82</td>
<td>2.11</td>
<td>Large</td>
</tr>
<tr>
<td>Situational Self-Confidence</td>
<td>12.304</td>
<td>29</td>
<td>Sig. at (0.01)</td>
<td>0.84</td>
<td>2.28</td>
<td>Large</td>
</tr>
<tr>
<td>Speaking Self-Confidence</td>
<td>24.033</td>
<td>29</td>
<td>Sig. at (0.01)</td>
<td>0.95</td>
<td>4.46</td>
<td>Large</td>
</tr>
<tr>
<td>All Self-Confidence</td>
<td>22.08</td>
<td>29</td>
<td>Sig. at (0.01)</td>
<td>0.94</td>
<td>4.10</td>
<td>Large</td>
</tr>
</tbody>
</table>

Results in table (8) indicate that ETA squared was (0.94) reflecting its practical significance. Accordingly, it can be said that (94%) of the variations between the scores of students’ self-confidence could be due to utilizing an ICT linguistic life skills based program. In addition, results reveal that the effect size (d) equals (4.10) and that there was high effect and educational importance for improving and developing self-confidence. Consequently, the fourth hypothesis was verified and accepted.

**Discussion of the Results**

Based on the statistical analysis of the EFL phonological awareness skills hypotheses, it was clear that the experimental group students outperformed the control group students in all EFL phonological awareness skills, and the t-values were highly significant at (0.01) level. Besides, the experimental group's post-test results were much better than the pre-test results, and the effect size was great (95%). These findings indicate that the ICT linguistic life skills based program proved to be more effective in improving the participants' ability to perform segmental and supra-
segmental phonological features better and enhance their EFL pronunciation skills.

Since the experimental group participants and the control group ones were similar and had the same characteristics, students’ performance was roughly the same in the pre-test. However, the case differed after the intervention. Participants in the experimental group showed more improvement to learn EFL phonological awareness skills. On the other side, participants in the control one were less motivated. The program clearly has a superb role in drawing students’ awareness towards EFL phonological features, improving their accuracy levels in it since the researcher controlled all the variables previously mentioned. They could master the segmental and supra-segmental phonological structures through videos, minimal pairs and modelling, and most importantly given assessment to their own pronunciation. They are free to repeat till they can master them.

The $t$-test results of the post-test revealed that "intonation awareness" was the most improved skill. It may be due to the attractive and enjoyable movies on MOODLE platform which motivated students to learn and listen to native speaker’s pronunciation in order to acquire the intonation more easily. Moreover, the audio visual demonstrations in authentic videos that had great impact on developing pronunciation skills as students’ monitored the pronunciation of native speakers and therefore pronounce correctly. In addition, hearing native speakers helped students to speak proficiently using English. Moreover, Tests after each lesson helped me to know my mistakes and correct them. The results of this research were in line with the studies of El-Gendy (2022), Hassan (2021), Khafajy (2019), Qasem (2017), Awad (2016), Luo (2016), Pi-hua (2015), Alipanahi (2014), Lepore (2014), and Moftah (2012).

The statistical analysis of the self-confidence hypotheses revealed that the experimental group’s self-confidence was improved compared to the control group students’ in all the scale domains, and that the $t$-values were significant at the (0.01) level. Besides, the experimental group's post self-confidence scale results were much better than the pre-administration results, and the effect size was high (94%). These findings implied that the program was effective in improving the participants' self-confidence, as they apparently enjoyed the experience of being a part of this ICT linguistic life skills program. The results of this research were in line with the studies of Faizah (2022), Kinasih & Olivia (2022), Bastiar & Utomo (2020), Leong & Ahmadi (2017), and Kheryadi (2018).
Based on data analysis, discussion and results, it can be concluded that using an ICT linguistic life skills based program resulted in improving secondary stage students’ EFL phonological awareness and self-confidence.

**Pedagogical Implications and Recommendations**

Based on the results of the present study, the following recommendations should be considered in EFL learning and teaching. Educational experts and Ministry of Education should provide their teachers with training courses on the importance of self-directed learning to help their students to be autonomous and self-regulated learners, that is to search for the information themselves, learn, manage, control, monitor and evaluate their learning process. Moreover, teachers should also be supplied with training courses to help them use the internet tools appropriately to be able to integrate technology in the process of learning and to create materials suitable to the new demands of education. As a consequence, higher interest in EFL phonological awareness and self-confidence should be taken into consideration by English teachers especially by using authentic materials that would help students understand spoken English in different life situations and be able to express themselves appropriately. In addition, EFL teachers should be trained to play different roles inside the classroom, other than being just a lecturer. Likewise, EFL teachers should embed the self-confidence domains in teaching and learning processes, and give a due care to the students' psychological side, which plays an important role in the students' learning process. Students also should be offered enough opportunities to practice EFL linguistic life skills on a daily basis for authentic purposes (i.e., to negotiate, make a decision, solve problems, respect diversity, and so on) in our EFL classes.

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