



# An Interactive Electronic Program Based on the Aesthetic Approach for Developing Reflective Writing Skills among Secondary School Students

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## Article History

Receive Date: 2023/11/3

Revise Date: 2023/11/19

Accept Date: 2023/11/23

Publish Date: 2023/12/9

## Abstract

The study aims to determine the effectiveness of using an electronic program based on the aesthetic approach to developing reflective writing skills among secondary school students. prepared a list of reflective writing skills and tested reflective writing skills among secondary school students.

The sample consisted of (60) female students distributed into two groups (control, experimental) of female students in the first year of secondary school at Martyr Ibrahim Al-Sayed Secondary School (formerly Al-Hikma) affiliated with the West Tanta Educational Administration in Gharbia Governorate.

**methodology:** followed the descriptive method and the experimental method with a quasi-experimental design.

**Most important search results:**

The experimental group excelled in acquiring contemplative writing skills, the most important of which are: clarifying the value of the contemplative topic in human life, and providing some solutions to the phenomenon at hand. The researcher attributes this to the use of an interactive electronic program based on the aesthetic approach, and the modern activities and techniques it included to present them with an effective impact on Developing their targeted reflective writing skills **most important recommendations:**

Preparing a graduated list of reflective writing skills from the primary stage to the secondary stage. • Building Arabic language curricula, especially reflective writing, in light of the aesthetic approach to the different stages of education. , Benefiting from integrating interactive e-learning techniques and aesthetic approaches into the education process.

**Keywords:** *interactive electronic program - the aesthetic approach - reflective writing*

## Introduction

The Arabic language is considered the most elevated, most, eloquent, and most honorable among all languages, as it took its top positions among other languages when God distinguished it as the language of the Holy Qur'an. Allah the Almighty said: *{And indeed, the Qur'an is the revelation of the Lord of the worlds, The Trustworthy Spirit has brought it down Upon your*

*heart, [O Muhammad], that you may be of the warners, In a clear Arabic language.}* (The Poets 192-195).

Language comprises four skills: reading, listening, speaking, and writing, through which the student utilizes his own information and ideas to write, especially in the secondary stage being, among others,

the one which reflects a great deal of mental maturity and development. Thus, such a stage enables the student to interact with the community in which he lives (Al-Morsi and Abdel-Wahab, 2005, 206).

Reflective writing is that type of writing that needs contemplation, deep thinking and excitement. In addition, reflective writing topics are multi formatted including: a case, an event, a theme. Yet, the writing product is not liable to be right or wrong (Al-Harthy, 2014, 3). In fact, it reflects deep thinking about the issue, or the event related to the writer's life or the lives of those around him not only as a reality, but also includes adding opinions, standpoints, self-impressions, and beliefs. Therefore, reflective writing is so special compared to other types of academic writings (Naber, 2011 and Hussain, 2013).

A number of studies, including Issa and Nabil (2018); Salah (2021); Ibrahim (2021), and Al-Khodr (2021) indicated a low level of students' mastery of reflective writing skills, hence recommended the need to develop such skills.

The aesthetic approach is one of the educational approaches that teacher adopts as a pathway to teaching his subject, as it awakens the students feelings and capacities, so they would realize the rhythm and compatibility in all phenomena. In other words, the teacher, during students' instruction and management, focuses on intuition, imagination, and meditation (Sayed, 2013, 37).

Due to the significance of the aesthetic approach, plenty of studies national and international have attempted to employ it in teaching and learning. Those studies have also emphasized its teaching effectiveness in different stages and subjects (Attwood 2015, Abdel Azim 2016, Moussa 2018, and Younis 2020). Yet, the aesthetic approach has not been exploited in reflective writing.

Educators have begun to pay attention to e-learning programs and many researches have indicated its importance in teaching and developing the Arabic language skills including (Hanish, 2013; Attia, 2018; Shawky, 2020, and Ibrahim, 2021). E-Learning programs are notable for its capability of providing a wide variety of educational tools and resources for teaching the required educational content. It also makes the educational process more exciting, beautiful and lively, which is an extremely important consideration imposed by the use of aesthetic approach in teaching (El-Sherbiny, 2005, 11).

#### **Problem of the study:**

The present study attempts to answer the following main question:

*How would an electronic program based on the aesthetic approach be employed to develop reflective writing skills among first-year secondary students?*

In addition to this main question, the present study attempts to answer the following sub-questions:

1. What reflective writing skills are needed by first-year secondary students? What is the availability of such skills among the sample?
2. What is the appropriate educational research design of the interactive electronic program based on the aesthetic approach to develop reflective writing skills among first-year secondary students?
3. What is the effectiveness of an interactive electronic program based on the aesthetic approach on developing reflective writing skills among first-year secondary students?

#### **Procedures of the Study:**

*To answer the questions of the study and fulfill its aims, the researcher:*

1. Determined the reflective writing skills necessary for first-year secondary students, and their availability among the sample members.
2. Identified the appropriate educational design of the electronic program based on the aesthetic approach to develop reflective writing skills among first grade secondary students.
3. Identified effectiveness of the electronic program based on the aesthetic approach in developing reflective writing skills among first-year secondary students.

#### **Terminology of the study**

##### **1. Aesthetic approach:**

Using existing literature and related studies (e.g., Hammam, 2021, 156), the research operationally defined the aesthetic approach as "the creativity in presenting the content to be taught and presenting its ideas in a dramatic style so the aesthetic strategies and attitudes are the main constituent through which the practical material is presented to develop reflective writing skills among first-year secondary students."

##### **2. Reflective Writing:**

Using existing literature and related studies (e.g., Al-Harthy, 2014, 10), the research operationally defined reflective writing as "the ability of first-year secondary student to develop a mental perception that evokes deep thinking and intellect and reliance on appropriate words selection with all feelings and effects they convey to affect the other's mind enabling him to draw a picture through which he tells a situation, event or a special experience strongly related to his life or the lives of those around him, through the various writing stages under specific criteria".

#### **Literature review**

##### **First: Reflective Writing:**

##### **1- The concept of reflective writing:**

Issa and Tobasi (2018, 92) defined reflective writing as: "a set of notes, ideas, and written experiences, which express oneself and reflect personal experience." Al-Anzy and Al-Arfaj (2021, 183) stated that reflective writing is "a type of free writing that allows students to express their opinion or describe their feelings on a certain topic, or describe what they want to meditate

on, which helps them develop and enhance their reflective thinking, and develop their self-confidence." In light of these definitions, reflective writing can be defined as: the student ability to develop a mental perception that evokes deep thinking and intellect and reliance on appropriate words selection with all feelings and effects they convey to affect the other's mind enabling him to draw a picture through which he tells a situation, event or a special experience strongly related to his life or the lives of those around him, through the various writing stages (drafts) under specific criteria"

### 2. Significance of reflective writing:

Several studies: Poldner, schaaf, simons, Tartwijk and Wijngaards (2014), Ahmed (2020) and Al-Khodr (2021, 24) strongly stated that reflective writing has numerous psychological and educational benefits for students as it:

- Is characterized by its influence improving new knowledge compared to previous knowledge.
- Helps students write and discuss events.
- Improves the ability to observe oneself, and confront oneself as metacognitive processes.
- Organizes the learner's ideas, and enables him to see his ideas and knowledge written, allowing him to reformulate and organize them.

### 3- Reflective writing skills.

A number of studies including Salim (2010); Al-Harthy (2014); Al-Samman (2014); Ahmed (2020) identified a number of reflective writing skills:

1. Identifying the experience or the situation to talk about.
2. Concluding the topic by stating the learned experience that had an impact on the writer's subjectivity.
3. Identifying the negative assumptions and alternatives to solve the problem.
4. 4) Thinking about future means to exploit to avoid emergence of the problem at hand.

### Second: the Aesthetic Approach:

#### **Concept of the aesthetic approach:**

Girod and Wong (2011, 205) defined aesthetic approach as: "an approach to teaching through which concepts and other forms of knowledge are presented using a number of strategies, integrating in beautiful and pleasant ways based on evoking feelings, emotions, and imagination as represented by liberating ideas from logical associations, and arousing the intuition of understanding the truth, not being bound by only logical analyses." Hammam (2021, 156) indicated that the aesthetic approach relies on a set of teaching activities that focus on promoting and employing the element of beauty and all its aspects in content shaping and teaching, where topics are presented in an interesting way that attracts students.

the above mentioned definitions indicate that the aesthetic approach depends on "the creativity in

presenting the content to be taught and presenting its ideas in a dramatic style so the aesthetic strategies and attitudes are the main component through which the practical material is presented in an interesting way that attracts students.

### **Foundations of the aesthetic approach:**

The existing literature and related studies of Al-Samman (2014); Moussa (2018), and El-Sherbiny (2020) identified the foundations of the aesthetic approach of the Arabic language as follows:

1. Focusing on the affective aspects of the educational process.
2. Focusing on strategies that allow students to engage and actively participate in the learning process.
3. Utilizing audio-visual aids, which ensures enjoyable learning.

### **Aesthetic approach strategies for developing reflective writing skills:**

There are many strategies for developing reflective writing skills including: cooperative learning, similarities, concept maps, problem solving, and the narrative approach in teaching. The present study focuses on aesthetic approach strategies.

### **Third: The electronic program and its significance in the teaching learning processes:**

Amira and Ahmad (1016, 723) believe that e-learning programs rely on taking advantage of technological applications to provide an interactive multiple source learning environment, without committing to a place or time depending on self-learning and interaction between the learner and the teacher through appropriate electronic media.

Despite the overlapping and similar definitions of e-learning programs, they have all agreed that e-learning programs are educational and learning programs designed by computer and Internet technologies that include presentations, explanations, interactive helping activities, and feedback, which are employed to present educational content and interactive activities in and out of school attempting to activate the learner role. This would contribute to achieving the targeted educational outcomes.

### **6.Tools of The Study**

*The present study utilized the following tools and procedures:*

Preparing a preliminary list of reflective writing skills which included (22) reflective writing skills; presenting them a specialized jury members, analyzing the jurors' responses, and the final list was reached following the recommendations of the jury members. The final list contained (21) skills after deleting (1) skill as its relative weight was less than 90%.

Building the reflective writing skills test by reviewing a set of similar tests including Al-Masri (2006) and Shaaban (2008). The test included (3) topics: (the value of time for man and his life, social customs, and

personal events and facts), the student chooses to write on one topic.

Validating the test using the following steps:

1. Verifying content validity by presenting the test in its preliminary form to a jury of specialists. Based on the jury comments and recommendations the wording of some questions has been modified to be more specific and appropriate to the students level.

2. Verifying the validity of the test internal consistency by calculating the correlation coefficients between the scores of each of the test components with each other and the total score of the test, as shown in the following table(1):

Test Components	Basic Writing Skills	Reflective writing skills
Basic Writing Skills	-	0.47**
Reflective writing skills	0.47**	-
Total Grade	0.95**	0.72**

The above table shows that the correlation coefficients between the test sub-components with each other and the overall test scores are high, ranging between 0.47 to 0.95, all of which are statistically significant at the 0.05, level which indicates the validity of the test.

3. Verifying the reliability of the reflective writing test by calculating the test reliability coefficient using the Spearman-Brown Coefficient formula, using the statistical package SPSS\* version (26). The value of the reliability coefficient was 0.73, which is an appropriate value that indicating the reliability of the test.

4. Preparing the electronic program based on the aesthetic approach:

The content of the program included (7) lessons to develop reflective writing skills that included many reflective topics and practical activities, using dramatic and interesting presentation techniques based on the aesthetic approach. It was presented according to the following procedural steps:

**Introduction:** Presenting a simulated event, topic or experience using an interesting dramatic way with audios that presented and evoked feelings, sensations and emotions.

**Presentation:** Presenting a diagram of the concepts and elements of the reflective topic and its skills in a sequential manner, where the general concept and general idea are clarified, then the sub-concepts and partial ideas fall into the following levels, depending on the strategies of the aesthetic approach and the media included in the electronic program.

**Interactive and practical activities:** Applying interactive activities and electronic evaluation methods

assigned to students during and after the presentation of the lesson.

**Evaluation:** The synchronous and asynchronous interim evaluation was used as represented by evaluating activities and assignments, providing feedback, in addition to the final evaluation after completing the study of reflective writing topics.

**Assessing the effectiveness of the electronic program based on the aesthetic approach in developing the targeted reflective writing skillsthrough:**

**Pre-administration of the reflective writing test:**

prior to the outset of the study, the reflective writing test was administered to both the experimental and control groups. Following the correction of the test and collection the students' grades, the data were statistically processed to verify the homogeneity of the two groups, using the Independent Sample T-test. The following table(2) shows the results:

Reflective Writing Test	Group	Number N	Mean M	SD Standard Deviation	DF Degree Of Freedom	T VALUE (V)	SIG LEVEL	STATISTICAL SIGNIFICANCE
Basic Writing Skills	Control	30	13.97	3.54	58	0.38	0.7	Insignificant
	Experimental	30	13.63	3.26				
Reflective Writing Skills	Control	30	0.17	0.53	58	0.00	1.00	Insignificant
	Experimental	30	0.17	0.46				
Total Score	Control	30	14.60	4.30	58	0.38	0.7	Insignificant
	Experimental	30	13.80	3.27				

As is shown in the table, the results indicated that there were no statistically significant differences between the mean scores of the of the control and experimental group students on the pre-administration of the reflective writing test, which indicated the

homogeneity of the two groups before the starting of the experiment.

**Administrating the electronic program based on the aesthetic approach:**

After training the students on using the electronic program, each student was handed the login data to the site to start studying the topics of reflective writing and implementing the reflective writing activities included in the electronic program. The teacher followed up the implementation of the activities, and gave continuous feedback (distantly).

**3- Post- administration of the reflective writing test:**

Following the administration of the electronic program, the reflective writing test was administered to the study sample in a post-administration to identify its effectiveness on developing reflective writing skills, and its effect on Students' achievement level.

**7. Statistical Methods:**

A number of statistical methods were used to process the study results through the SPSS program).

**8. Results of the study**

Preparing a list of reflective writing skills suitable for first-year secondary school students, and clarifying how the list was built and managed. The list contained (22) sub-skills classified under two main components, first: general writing skills which included (12) sub-skills, and second: reflective writing skills which included (10) sub-skills, as follows:

- 1) Introducing the topic including the necessary initial events.
- 2) Describing the feeling towards the event.
- 3) Using the first person pronoun during narration.
- 4) Supporting ideas with evidence and proofs.
- 5) Expressing the event without exaggeration.
- 6) Providing appropriate explanations of the topics' events.
- 7) insinuating some of the reasons that prompted him to write.
- 8) Linking the reflective topic to reality.
- 9) Providing some solutions to the phenomenon at hand.
- 10) Providing some proposed alternatives to avoid the recurrence of the problem.

2. To determine the effectiveness of the electronic program, the (T) test was used to compare the mean scores of the control and the experimental group students' performance on the post administration of reflective writing skills test, **and the following table (3) shows those results.**

These results indicated there were statistically significant differences between the mean scores of the

Reflective Writing Test	Group	Number N	Mean M	SD Standard Deviation	Freedom	T Value (v)	Significance Level	Significance
Basic Writing Skills	Control	30	17.20	4.53	58	14.64	0.00	Significant
	Experimental	30	31.80	3.06				
Reflective Writing Skills	Control	30	5.97	2.01	58	21.37	0.00	Significant
	Experimental	30	20.53	3.15				
Total Score	Control	30	23.17	5.75	58	21.46	0.00	Significant
	Experimental	30	52.33	4.73				

students of the two groups on the post-administration of the test, which indicated the effectiveness of the electronic program based on the aesthetic approach in developing reflective writing skills among first-year secondary school students.

The Paired Samples T-Test was also used to compare the mean scores of the experimental group students in the pre- and post-administration by testing reflective writing skills.

As shown, the results indicate that there were statistically significant differences between the experimental group students' means scores on the pre- and post- administrations in favor of the post-admiration, and on the reflective writing test as a whole, and on each of its sub-components. This indicated the students high performance level the at the end of the experiment.

**9. Interpretation of the results:**

The results of the present study indicated the effectiveness of the electronic program based on the



aesthetic approach in developing reflective writing skills among first-year secondary school students. The results also indicated that the following reflective writing skills were the fastest developing: linking the reflective topic to reality, providing some solutions to the phenomenon at hand. This improvement is due to the adoption of the electronic program in presenting the content using the aesthetic approach strategies and the activities and the modern techniques it contains, and the continuous evaluation methods that allow the adoption and promotion of self-learning, which has a great impact on the development of the targeted reflective writing skills.

However, the present study is different as it used an interactive electronic program based on the aesthetic approach to develop reflective writing skills.

**10.Recommendations of the study:**

*Based on the results, the present study recommends:*

1. Employing E-learning tools and aesthetic approach strategies in teaching the Arabic language branches.
2. Training teachers to use aesthetic approach strategies to develop the teaching performance in the educational process.

**11.Recommendations for further research:**

1. Using the aesthetic approach in developing reflective writing skills in different stages of education.
- 2.Using the aesthetic approach in developing persuasive writing skills people with special needs. Therefore, they are in dire need of health, social, economic and educational.

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Reflective Writing Test	Group	Number N	Mean M	SD Standard Deviation	DF Degree Of Freedom	T Value (V)	SIG Significance Level	Statistical Significance
Basic Writing Skills	Pre Admistration	30	13.63	3.26	29	37.14	0.00	Significant
	Post Admistration	30	31.80	3.06				
Effective Writing Skills	Pre Admistration	30	0.17	0.46	29	34.86	0.00	Significant
	Post Admistration	30	20.53	3.15				
Total Score	Pre Admistration	30	13.80	3.27	29	43.22	0.00	Significant
	Post Admistration	30	52.33	4.73				

The result of the present study are consistent with the results of a number of studies that focused on developing students' reflective writing skills: the study of Ghanem (2018), which used a strategy based on transformational learning in developing reflective writing skills among secondary school students. Similarly, the study of Ibrahim (2021), which used the strategy of digital scientific stations to develop some reflective writing skills among secondary school students. In addition, the study of Ahmed *et al.* (2022), which presented a proposed program based on cognitive apprenticeship to develop reflective writing skills among preparatory school students.

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