The Effect of a Proposed Program in the Scholastic Electronic Journalism Production on the Development of Critical Thinking Among Preparatory Stage Students

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Abstract:

The Aims of study sought to reveal The Effect of a Proposed Program in the Scholastic Electronic Journalism Production on the Development of Critical Thinking among Preparatory Stage Students. The study is an experimental study that used the semi-experimental single-group (Prior- Post) method, and the tools were applied to a sample of (50) student from the third grade of the preparatory school at the Al-Minia Official Experimental School for Languages. The study tools were: a cognitive test in the Scholastic electronic Journalism production, assessment card for the Scholastic electronic Journalism production skills, Watson Glaser critical thinking test, as well as experimental treatment material that included objectives, content and educational activities presented in the form of meetings within a technologically equipped school classroom. The study found that the performance of the study sample Prior in the dimension measurement compared to the Student measurement in the cognitive and skill aspects of the Scholastic electronic Journalism production, critical thinking skills, and some recommendations and research suggested in the study results were presented.

Keywords: the Scholastic electronic Journalism production - critical thinking.

1. Introduction:

There is a general consensus among educationalists that thinking skills are influential in almost every discipline and occupation and are consistently required to meet all academic objectives (Facione and Facione, 1996). Despite the ever-increasing prominence of the position of thinking skills in this fast-paced and ever-changing world, it seems enhancing higher levels of cognitive skills is something that has been ignored at the elementary، middle, and high school levels where students are taught how to learn, as well as how to analyze information (Henderson-Hurley and Hurley, 2013). As Smith and Szymanski (2013) contended, in quest for better test scores based on memorization, many students leave the high school education system without the thinking skills that are necessary to succeed in higher education. Higher-order thinking skills are indispensible higher education learning outcomes due to the position of questioning and conflicting evaluations, selfregulation، critical thinking about complex issues, and maximum exertion of intellectual and practical skills in universities (Choy and Cheah, 2009).There is a general consensus among educationalists that developing deep and higher-order thinking skills of university students must constitute the core objective of the agenda of higher education. Scholars in the field of higher education contended that rational and deep thought is a standard of intellectual excellence required for full and constructive participation in academic, individual, and social lives of students (Ghanizadeh, A, 2017).

Educators unanimously agree on the importance of critical thinking in the educational process, as it transforms the process of acquiring knowledge from an inert process into mental activity that leads to better mastery of the scientific content, and students gain the ability to provide correct explanations and reduce incorrect explanations; Thus, their ideas become more accurate and valid (Qattami, N, 2004). The acquisition and development of

critical thinking among learners is also a modern trend of educational systems. Because of the urgent need to develop the capabilities of individuals to face difficult challenges and help they gain knowledge (Khalil, I, 2009). School media is one of the main and important axes in building a critical personality.

From this standpoint, the school was obliged to keep abreast of the information flow in all fields. To enable generations to adapt and adapt to the developments of the times and creativity besides their upbringing and preparing them for tomorrow, because information has an educational function in shaping human attitudes and trends and in building his personality, which is what the school needs to keep pace with this development by introducing the media process within the basic educational activities to achieve its desired goals and objectives represented in In the formation of a positive and integrated person in his society and disciplined according to his values and laws. It becomes clear to us that electronic school journalism is one of the media outlets that employ the capabilities of computers and the Internet in the design, production and publishing process, so that they are not immune to modern technological developments, Where they are used: colors, pictures, graphics, movement, tables, sound, floors, and other multimedia, all of these factors help to attract the attention of students to follow the electronic school press and learn about modern press techniques. It is evident from the above that developing critical thinking skills for prep students is considered one of the most important goals of the Scholastic electronic Journalism.

2. Background and theoretical framework:

2.1 -Background on Scholastic electronic Journalism:

Description (Vahl, R, 2017) of Scholastic electronic Journalism as: "a press activity that is displayed using technological means, which is published by students and do school work groups, and

supervises and guides them a teacher or specialist, and reflects the interests and activities of the school community; as you contribute to shaping general satisfaction between School children. "While (Holland, A., & Andre, T, 2016) defined it as: "one of the school activities presented in an electronic form and providing students with information and knowledge about the world in which they live, in addition to providing other types of knowledge, such as: events, ideas and new information". Also, she (Alessi, S.M. & Trollip, S.R, 2016) defined her as: "regular or irregular online digital journalistic content over the Internet supervised by an educational media specialist, and aimed at achieving positive results with students." As for (Powers, E. M, 2014) defined it as: "a periodic electronic publication containing current events, whether related to general topics or topics of a special nature and related to materials and topics taught by students, through the computer, either directly or through communication networks with developing, broadcasting, communicating and displaying electronically, This information may be in the form of text, pictures or drawings that are processed automatically and issued by the students themselves. "In a related context, it was defined by (Abdel Kafi, 2012), as: " Scholastic electronic Journalism, use the Internet to broadcast to this audience, and use computers, structural elements, and various highlighting methods to present their topics".

2.1.1 -The importance of Scholastic electronic Journalism :

Tipton, L. P., & Sumpter, R. S (2013, 26) shows that Scholastic electronic Journalism plays an important role in enriching the educational process for students, for several reasons, the most important of which are: The Scholastic electronic Journalism seeks to reveal students 'talents and encourage them to organize ideas in writing and effective communication with others., To develop a sense of belonging and loyalty to school and society., Raising levels of academic achievement for students by teaching

them the basics of research and reading., To shed light on the positive aspects of the school and support the relationship between the school and society.

2.1.2 -Aims of the Scholastic electronic Journalism:

Category (Powers, E. M, 2014) Aims of the Scholastic electronic Journalism to the following: **general aims: (**To develop feelings of subordination to the school and society by the students.**,** Provide students with a suitable general culture.**,** Connecting students with the local environment, the surrounding community, and the outside world.**,** To develop scientific thinking and encourage scientific creative spirit among students.**,** Improve self-learning abilities among students.**,** Instilling a spirit of cooperative action among students.**,** Ensure the development and improvement of religious and social values among students.**,** Try to get students to practice democracy). **special Aims: (** Helping students to acquire a culture appropriate for their ages.**,** Working to inculcate religious, national and behavioral values.**,** Giving students the opportunity to contribute positively to projects that serve their societies.**,** Practicing all journalistic arts within an electronic environment.**,** Connecting students with the major electronic information sources.**,** Teaching students how to practice constructive criticism.**,** To develop aesthetic tendencies among students.**,** Facilitate the curricula and present them in an attractive electronic template for students.**,** Qualifying students with journalistic talents for future journalistic work.**,** Occupy students' spare time with useful articles and journalistic articles from their production.**,** Directing students towards the best methods of studying and gathering information.

2.1.3 -Uses of the Scholastic electronic Journalism:

John, N. R. (2013) shows that Scholastic electronic Journalism has high reading rates among students; Therefore, it is necessary for the following reasons: The Scholastic electronic Journalism supports the formation of students ’identity and affiliation with the

school and society., School journalism develops critical thinking capabilities among students., Scholastic electronic Journalism gives pupils the gratifications related to entertainment and enjoyment, and talking to others about various activities. Also, students use Scholastic electronic Journalism for a variety of purposes that they define (Goodman, M., C. Bowen, and P.Bobkowski, 2013) as follows: Writing a story, editing an article electronically, designing and submitting advertisements within the electronic Journalism, recording an interview, displaying pictures related to specific news within the framework of the Scholastic electronic Journalism, searching for information about specific issues and events. Correspondence with absent classmates about school events and events.

2.1.4 -Characteristics of the Scholastic electronic Journalism:

De Waal, E , Et al (2015) pointed out that the characteristics that distinguish Scholastic electronic Journalism from traditional clearly and smooth design, selection of attractive titles, ease of navigation and hierarchy across the topics of electronic school journalism, the ability to share information.

2.1.5 -Motives for students to be exposed to Scholastic electronic Journalism:

Callahan, C (2013) described the motives for pupils' exposure to Scholastic electronic Journalism as follows: (Learn the basics of thinking and problem solving, with additional degrees., Practice creative writing, based on new experiences, entertainment and time pass.

2.1.6 -Exposure patterns to Scholastic electronic Journalism:

Flavian, C., & Gurrea, R (2015) cited exposure patterns to Scholastic electronic Journalism as follows: (Intense exposure several times and over an hour during the school day and while at home., Average exposure is to see the Scholastic electronic Journalism twice a day., Poor one-time exposure or no exposure to Scholastic electronic Journalism.

2.1.7 -Advantages offered by the Scholastic electronic Journalism for prep students:

Class (Bhat, M. A, 2016) advantages provided by the Scholastic electronic Journalism for students as follows: The Scholastic electronic Journalism represents a good opportunity to improve students 'creative writing skills by focusing on the accuracy and clarity of language use and sentence building. Students also learn from the practice of school journalism in general to produce good writing that is straightforward, clear, simple, and smooth.**,** The Scholastic electronic Journalism affects positively the general academic performance of pupils in formal educational situations, and when pupils are allowed to engage in this type of activity that is more freedom and creativity without being restricted to content, the academic achievement of pupils improves.**,** Online platforms provide a faster and more realistic opportunity to produce and read school newspapers, as this technology offers many additional benefits to school journalism, including interactivity and the opportunity to verify information, write and electronic journalistic editing.**,** The Scholastic electronic Journalism represents a good opportunity and a breathing space for gifted students to express themselves and their skills, whether in press editing, design, or publishing.

2.1.8 -Student's attitudes towards the Scholastic electronic Journalism:

Students 'attitudes toward Scholastic electronic Journalism are measured in the light of three main variables, described (Hecht, M, 2011) in: the criticism of Scholastic electronic Journalism, students' perceptions of interest in Scholastic electronic Journalism, and student perceptions toward the goals and value of Scholastic electronic Journalism. While (Arke, E.T. & Primack, B, 2016) showed that the students 'attitudes towards the Scholastic electronic Journalism activity, is that the Scholastic electronic Journalism: contributes to providing students with technical and

non-technical skills, provides students with educational and efficient experiences in the production of multimedia, and provides students with an interest in the profession of journalism. As for (Cochrane, T, 2013), they found positive trends on the part of students towards the activity of Scholastic electronic Journalism, where they pointed out the following aspects of excellence: accustoming students to search for new information, and helping students to gain adherence to deadlines and self-confidence in Skills, abilities, and self-management on time and tasks.

2.1.9 The Effect Scholastic electronic Journalism:

Students' exposure to Scholastic electronic Journalism is the basis for developing their critical thinking skills, which are among the basic elements of education. The Scholastic electronic Journalism reflects all the characteristics of the Internet technology, as it represents an environment rich with dynamic information characterized by interactive and multimedia and hypertext (Opgenhaffen, M, 2014). Also, (Garets, W.E, 2012) clarifies that Scholastic electronic Journalism represents "the main means of communication and a tool for building morale across the school, in addition to providing students with opportunities to teach many aspects of collecting, organizing and disseminating facts, ideas and freedom of expression". Students who participate in the Scholastic Journalism activity can score high levels of reading and understanding, in addition to recording very few errors compared to their non-participating peers. Across all metrics for presenting information and evaluation (Zaff, J.F, 2013). The Scholastic electronic Journalism programs are closely related to the academic learning aspects of pupils, and the goals of these programs are linked to the curriculum standards in order to support the students' abilities to write, respond, discuss and use technology. Student participation in e-journalism is a real test of their ability to analyze, think critically, plan, collaborate, and performance linked

to the results. Numerous research evidence has demonstrated that students who participate in the Scholastic electronic Journalism activity have better educational performance than their non-participating peers and obtain better grades (Cybart, A. K, 2017).
Hall, H.L, (2014) described the aspects of the pupils' practice of Scholastic electronic Journalism with academic results, as follows: See journalistic and scientific texts such as books and electronic articles to build knowledge on issues: Writing editorials, opinion articles and criticizing the news electronically by searching for facts and evidence., Plan interviews, prepare questions, write comments and notes, and respond to information during discussions., Students practice the skills of reviewing and editing when producing electronic Journalism reports., Learn a range of computer technologies and software in order to produce quality electronic content.

2.1.10 -Factors affecting the attitudes of students towards Scholastic electronic Journalism

Haugh, R. E., & Oates, W. R (2014) pointed out that there are five factors that affect students 'attitudes towards Scholastic electronic Journalism activity, namely: gender, socioeconomic status of students, school interest in Scholastic electronic Journalism activity, level of education, and students' self-efficacy.

2.1.11 -Strategies for developing Scholastic electronic Journalism:

Dodd (2015, 56) mentioned that the idea of developing Scholastic electronic Journalism should go through several necessary strategies, which are: Organizing competitions and competitions in the field of electronic school journalism, which serve educational Aims and develop students 'personalities in the cognitive, technological and psychological aspects., Training students to use the Internet and databases in research and access to information sources in a practical way.

2.1.12 -Barriers for students to benefit from the Scholastic electronic Journalism:

As for the barriers students benefit from Scholastic electronic Journalism, Qabal, H. (2017, 77) believes that there are a number of difficulties facing students in practicing Scholastic electronic Journalism activities: The lack of understanding among school administrators of the importance of Scholastic Journalism and Scholastic electronic Journalism in particular., The lack of specialists in this field in many governorates, while in some governorates we find specific education colleges, the Department of Educational Information, and in other governorates we do not find these colleges., Media professionals in some schools are not eligible to use computer programs and make websites., The weakness of the school press budget, even in relation to other activities, is almost less than (20%) of the school's budget., Lack of interest in computer labs and lack of interest in training students in computer skills., The emergence of the activities of the Quality Assurance Units for Education led to the emergence of schools' websites on the Internet and the work of electronic newspapers, and led to the existence of activities aimed at competition between schools.

*2.2 **Background on Critical thinking:***

There are several conceptualizations of critical thinking depending on the field it is studied. The present study looks at critical thinking as a conventional quantitative measure that is operationalized in the use of the Watson-Glaser Critical Thinking Appraisal (WGCTA). Paul (1995) argues that the conceptualization of critical thinking is best informed according to the context and purpose it is used. In previous studies, critical thinking as an outcome of metacognition is broken down into skills such as development and evaluation of arguments and coming up with inferences. It is therefore appropriate to take a

psychological frame in defining critical thinking. The following definitions of critical thinking in the present study were selected:

- Mayer and Goodchild (1990) defined critical thinking as an active and systematic attempt to understand and evaluate arguments.
- Beyer (1984) views critical thinking as a collection of skills that combine analysis and evaluation of information. Moreover, there are ten discrete skills that have emerged as the core of critical thinking: (a) Distinguishing between verifiable facts and value claims; (b) determining the reliability of a source; (c) distinguishing relevant from irrelevant information, claims, or reasons; (d) detecting bias (e) identifying unstated assumptions; (f) identifying ambiguous or equivocal claims or arguments; (g) recognizing logical inconsistencies or fallacies in a line of reasoning; (h) distinguishing between warranted or unwarranted claims and; (i) determining the strength of an argument.
- Schroyens (2005) divided them into eight domains: Storing and retrieving knowledge, deductively generating valid inferences, making or creating arguments, testing hypothesis, thinking under uncertainty, making decisions, developing problem-solving skills, and/or engaging in creative thinking.
- Halpern (1998) devised her own taxonomy of critical-thinking that includes: (a) Verbal reasoning skills; (b) argument analysis skills; (c) skills in thinking as hypothesis testing; (d) likelihood and uncertainty; (e) decision-making and problem-solving skills.

These definitions are captured by outcomes in previous studies (ex. Choy and Cheah 2009; Kuhn and Dean 2004) and measures such as the Watson Glaser Critical Thinking Appraisal. Adapting these definitions make critical thinking more feasible to be quantified using the WGCTA. Moreover, having quantitative representations through tests and scales enables the researcher to structure metacognition and critical thinking in a measurement

model. The factors of critical thinking as identified by Watson and Glaser (1980) are still evident across studies. For example, the study by High (1991) videotaped teachers and students and found that conceptualizations of critical thinking are similar with the factors of the WGCTA that includes supporting claims with evidence, predicting, evaluating, and thinking flexibly. Newman et al. (1995) studied critical thinking in transcripts of class discussion through an on-line system and they found same ideas with the factors of the WGCTA that includes more evaluations and justification statements. Moreover, studies have shown consistent validity and reliability of the WGCTA (Modjeski and Michael 1983; Moss and Kozdiol, 1991).

The present study more specifically involves the five factors of critical thinking found in the WGCTA measured as an ability measure (Table 1). As an ability, it is manifested when individuals correctly perform the tasks represented by the five factors. Specifically the WGCTA measures the ability to recognize the existence of problems and an acceptance of the general need for evidence in support of what is asserted to be true, and knowledge of the nature of valid inferences, abstractions, and generalizations in which the weight or accuracy of different kinds of evidence are logically determined (Watson and Glaser 2008). The five factors of metacognition include inference (process of deriving logical conclusions from premises known or assumed to be true), recognition of assumptions (statements that are assumed to be true in the absence of proof), deduction (deriving a conclusion), interpretation (weighing evidence and deciding if generalizations or conclusions based on the given data are warranted), and evaluation of arguments (assertions that are intended to persuade someone to believe or act a certain way) (see Appendix). These five factors of the Watson Glaser still hold to be valid despite many revisions of the WGCTA (Watson and Glaser 2008). A Confirmatory Factor Analysis (CFA) was conducted

(N=306) with the 40 items of the WGCTA and tested a one factor model, three factor model (RED model), and the traditional five factor model (Watson and Glaser 2009). These models were compared and the five factor model still had the best fit. The five factor model had the lowest chi-square ($\chi 2$ =159.39, df =125) and RMSEA value (.03), highest Goodness of Fit Index (GFI=.95) and Adjusted Goodness of Fit Index (AGFI=.93). The items under the five factor model also had higher parameter estimates than in the other models. The traditional five factor model of the WGCTA also correlated well (significant and moderate to high relationships) with the revised factors. In addition, the five factors remained stable across time and they are correlated with several indicators of ability (see Watson and Glaser 2008). In a met analytic study conducted by Bernard et al. (2008), 13 different studies were used and the factors of the WGCTA were combined in pairs. They found that the average correlation coefficients for each paired combination of the WGCTA factors achieved convergence with a positive relationship (the overall the average correlations ranged from a low of 0.17 to high of 0.40). They also interpreted that the five major subtests are significantly heterogeneous (Magno, C, 2010).

Table 1: Factors of the WGCTA

Factor	Definition
Inference	Ability to discriminate among degrees of truth or falsity of interferences drawn from given data.
Recognition of Assumption	Ability to recognize unstated assumptions or presuppositions which are taken for granted in given statements or assertions.
Deduction	Ability to reason deductively from given statements or premises; to recognize the relation of implication between propositions; to determine whether what may seem to be an implication of necessary implication or necessary interference from given premises.
Interpretation	Ability to weigh evidence and to distinguish between (a) generalizations from given data that are not warranted beyond

Factor	Definition
	a reasonable doubt; (b) generalization which, although not absolutely certain or necessary, do seem to be warranted beyond a reasonable doubt.
Evaluation of Arguments	Ability to distinguish between arguments which are strong and relevant and those which are weak or irrelevant to particular question at issue.

3. Method:

Within the framework of the main study question and the previous presentation, the Methodology can be determined through the following: The study used the experimental approach based on the quasi-experimental design of one group. The study studied and analyzed the literature and previous studies to arrive at the lists of skills / standards for the Scholastic electronic Journalism production, as well as a pre-measurement of study tools with students integrating the study sample in the learning process between the two measurements and then a dimensional measurement.

4. *Study design*:

The study procedures went through several stages, which are as follows:

4.1 -*Experimental treatment material:* Represented by a group of traditional meetings in the classroom.

4.2 - *Instruments:* A set of tools was used in the current study, namely: The Scholastic electronic Journalism production test., The Watson Glaser critical thinking test (the translation of Jabir Abdel Hamid and Yahya Al-Hindam) in Al-Anzi (2010); this is in line with the study objectives., Assessment card for the Scholastic electronic Journalism production skills.

4.3 *Experiment of study:* The study carried out the study experiment in three stages:

4.3.1 -Preparation and preparation stage:

4.3.1.1 -The experimental treatment material was built by the following:

a) Read about the educational literature and previous studies related to the Scholastic electronic Journalism production skills.

b) Defining the general and behavioral aims of the experimental treatment subject with proposing the educational content that achieves these aims, and then presenting these goals and content to the arbitrators to set them scientifically and to express an opinion on the extent of the behavioral aims fit the general aims and elements of the content.

c) Preparing a list of the Scholastic electronic Journalism production skills to be provided to students in the study sample, and then presenting them to the arbitrators to express an opinion on the extent of affiliation of the sub-skill to the basic skill, and determine the degree of the importance of the skill and its sub-procedures within the framework of three levels, namely: (1, 2, 3) On the basis of the lowest importance we express it with (1), and the highest importance we express with (3).

d) The experimental treatment material presentations were built in the form of accompanying texts with pictures and video files.

4.3.1.2 Preparing the student performance assessment card for the Scholastic electronic Journalism production skills, and presenting it to the arbitrators to express an opinion on the extent to which the items of the assessment card fulfill the objectives set out with its items, and the safety of formulating the terms of the assessment card scientifically, in order to express an opinion on its validity.

4.3.1.3 Defining the study sample, which included (50) male and female students from the third preparatory class in Al-Minia Official Experimental School for Languages.

4.3.1.4 Apply the cognitive test and assessment card prior to calculate the validity and reliability of each tool. And determining the level of students in the subject of learning, and tools measure the initial cognitive and skillful behavior related to educational goals.

4.3.1.5 Applying a test of critical thinking skills prior.

4.3.1.6 Conducting a workshop with the study sample students and showing them how to deal with educational content and accompanying activities.

4.3.1.7 Following the students after completing each meeting, receiving inquiries and following their opinions on the educational topic for each meeting.

4.3.2 -Presentation and presentation stage:

a) The Experiment of study started in the first semester of 2019/2020.

b) The experimental treatment subject, which included the Scholastic electronic Journalism production skills, was taught at (12) meetings, (3) meetings per week, and the duration of one meeting reached (60) minutes.

c) Students of the study sample were provided with activities before the start of each meeting, and each student was asked to assign each meeting.

d) Students were assigned to the study sample with a final assignment, which is the Scholastic electronic Journalism production.

4.3.3 -Final evaluation stage:

the Scholastic electronic Journalism production test was applied Post the experimental treatment course was completed, and the Journalism produced by students in the study sample were assessment by three arbitrators for final the Scholastic electronic Journalism production, assessment card and determined the level of performance of each item from (1: 3), as was applied The critical thinking test, and then the students' grades were separated in the Prior/Post-measurements, and then appropriate statistical treatments were used.

Table 2: Frame Elements as Variables

Frame element	Variables
	Electronic journalism is one of the innovations that emerged from the significant technological development in

Frame element	Variables
Problem definition as the main subject (S)	the fields of media and communication, and Scholastic Electronic Journalism followed in its emergence, as it became one of the most important tools used by educational media professionals in educational institutions; As it is considered one of the most important means of enlightening and educating students, it is the main pillar in shaping their ideas and developing their awareness of all the developments that are happening around them, and it is a tool for consolidating and embedding social values to support identity and build personality, and it also guides them to the roles they should play within their society. Scholastic Journalism develops students' higher thinking skills, such as critical and creative thinking, in addition to encouraging them to express their opinions freely and responsibly. And since the press relies on information to form its tangible entity, whether paper or digital, and as the current generation of students is more closely related to modern technological and digital means, it is easier for them when the Scholastic electronic Journalism production to access information in various ways, and to learn how to deal with it; Consequently, they need to develop critical thinking in order that they can obtain the information, make the best use of it, and present it in the appropriate journalistic form. In a related context, the study problem can be identified in the following main question: ***What is The Effect of a Proposed Program in the Scholastic Electronic Journalism Production on the Development of Critical Thinking among Preparatory Stage Students?***
Aims (A)	The current study seeks to achieve the following Aim: to reveal The Effect of a Proposed Program in the Scholastic Electronic Journalism Production on the Development of Critical Thinking among Preparatory Stage Students. From this Aim, a group of sub- Aims emerge, as follows: 1- Defining the proposed program elements to the Scholastic Electronic Journalism Production. 2- Defining the Scholastic electronic Journalism production skills for the preparatory stage. 3- Monitor the level of critical thinking among prep students, prior and Post the Scholastic electronic Journalism production.

Frame element	Variables
Importance (I)	The academic importance is divided into the following: **a) theoretical importance:** 1) the Scholastic electronic Journalism production are a tool for organizing and storing information. 2) Keeping up with educational trends that stress the importance of making the learner a critical thinker and a producer of knowledge with creative responsibility, and not a recipient or a negative consumer of it. 3) Merging the use of the Scholastic electronic Journalism production in the education and training of prep pupils. 4) It has drawn the attention of those in charge of the educational process to the necessity of training teachers in employing several methods and methods that stimulate and develop higher thinking skills. **b) Applied Importance:** 1) Taking into account the individual differences of the students, as each of them produces an Scholastic electronic Journalism according to their abilities and skills. 2) Developing critical thinking skills that help in building the personality of the innovative critical student, through which he can cope with technological changes and deal with the information flow efficiently. 3) Preparing a Scholastic electronic Journalism within the framework of a set of Standard.

5. Result:

5.1 **-test of hypothesis results:**

5.2.1 **-First hypothesis:** "There was a statistically significant difference at ($0.05 \geq \alpha$) level between the mean scores of the students of the study sample in the pre and post measurements of the Scholastic electronic Journalism production achievement Test Prior and Post exposure to the program in favor of the post the implementation". To verify the validity of the hypothesis, the (T) test was used to compare the mean of two related groups, namely

the average students' scores in the pre and post measurements of the Scholastic electronic Journalism production achievement Test, as shown in table (3).

Table 3: T-test results to know the significance of the difference between the average scores of students in the pre and post measurements of the Scholastic electronic Journalism production achievement Test.

(N=50 students - Great value for the test = (32))

The Measurement	Mean	Std. Deviation	T	df	Sig. (2-tiled)	η^2	d	effect size
Prior	11.82	5.164	6.928	49	0.001	0.494	1.98	Large
Post	17.50	3.573						

(*)Values of the t-distribution (two-tailed- 0.001) = 3.551

It is clear from the previous table that there is a statistically significant difference at the level (0.001) between the average scores of the students in the study sample in the pre and post measurements of the achievement test in favor of the post measurement, where the value of "T" (6.928) at a degree of freedom (49), thus the first hypothesis is accepted. It also turns out that there is a significant effect of the independent variable, which is: The proposed program in the Scholastic electronic Journalism production in the students' achievement of the study sample for the cognitive aspect of the subject of the study, where the value of the ETA square for the degrees of the study sample in the pre and post measurements of the achievement of the Scholastic electronic Journalism production achievement (0.494) which is greater From (0.15); This indicates that the effect of the independent variable on the dependent variable is very strong.

5.2.2 **-The second Hypothesis:** "There was a statistically significant difference at ($0.05 \geq \alpha$) level between the mean scores of the students of the study sample in the pre and post measurements of the Critical Thinking (Watson-Glacer) Test Prior and Post exposure to the program in favor of the post the implementation". To verify the validity of the hypothesis, the T-test was used to compare the mean of two related groups, namely the mean of the students 'scores in the pre- and post-

measurements of the Critical Thinking (Watson-Glacer) Test, as shown in Table (4).

Table 7: The results of the T-test to determine the significance of the difference between the mean scores of students in the pre and post measurements of the Critical Thinking (Watson-Glacer) Test

(N=50 students - Great value for the test = (99))

skills	The Measurement	Mean	Std. Deviation	T	df	Sig. (2-tiled)	η^2	effect size
conclusion	Prior	8.04	2.680	5.583	49	0.001	0.388	Large
	Post	11.28	3.458					
knowledge of postulates or assumptions	Prior	5.90	2.252	7.357	49	0.001	0.524	Large
	Post	9.48	3.072					
extrapolation	Prior	8.82	2.804	5.121	49	0.001	0.348	Large
	Post	12.32	4.259					
interpretation	Prior	8.56	2.786	7.893	49	0.001	0.559	Large
	Post	13.58	3.995					
Evaluation of Arguments	Prior	4.30	2.306	6.137	49	0.001	0.434	Large
	Post	7.70	3.688					
Total	Prior	35.62	10.768	7.394	49	0.001	0.527	Large
	Post	54.36	16.084					

(*)Values of the t-distribution (two-tailed- 0.001) = 3.551

It is clear from the previous table that there is a statistically significant difference at the level (0.001) between the mean scores of the students in the study sample in the Prior / post-measurements of the Critical Thinking (Watson-Glacer) Test in favor of the post-measurement, where the value of "T" (7.394) at a degree of freedom (49); Thus the second hypothesis is accepted. Also, it is clear that there is a statistically significant difference at the level (0.001) between the mean scores of the students in the study sample in the pre and post measurements of all sub-axes formed for Critical Thinking (Watson-Glacer) Test in favor of the post measurement, where the value of "T" at a degree of freedom (49) for the "conclusion" skill (5.583)), For the skill of “knowledge of postulates or assumptions” (7.357), for the skill of “extrapolation” (5.121), for the skill of “interpretation” (7.893), for the skill of “evaluating arguments” (6.137), and the magnitude of the effect of these differences according to the “ETA square”

for all of these skills That was great. Depending from the result above, that there is a significant effect of the independent variable, which is: The proposed program in the production of electronic school newspapers in the development of critical thinking skills. As the value of the ETA squared for the study sample scores in the pre and post measurements of the critical thinking test was (0.494) which is greater than (0.15); This indicates that the effect of the independent variable on the dependent variable is very strong.

5.2.3 **-Third Hypothesis:** "There was a statistically significant difference at ($0.05 \geq \alpha$) level between the mean scores of the students of the study sample in the pre and post measurements of the assessment card for the Scholastic electronic Journalism production skills Prior and Post exposure to the program in favor of the post the implementation". To verify the validity of the hypothesis, the (T) test was used to compare the mean of two related groups, namely the average students 'scores in the pre and post measurements on the assessment card for the Scholastic electronic Journalism production skills, as shown in table (5).

Table 5: Results of the T-test to determine the significance of the difference between the average scores of students in the pre and post measurements of the assessment card for the Scholastic electronic Journalism production skills.

N=50 students - value for the test = Great (230) – Micro (46))

The Measurement	Mean	Std. Deviation	T	df	Sig. (2-tiled)	η^2	effect size
Prior	49.54	4.244	58.678	49	0.001	0.985	Large
Post	160.22	3.14.545					

(*)Values of the t-distribution (two-tailed- 0.001) = 3.551

From above results and from the previous table that there is a statistically significant difference at the level (0.001) between the average scores of students in the study sample in the pre and post measurements of the assessment card for the Scholastic electronic Journalism production skills, where the value of "T"

(58.678) at a degree of freedom (49), thus accepting the hypothesis the third. It is also clear that there is a significant effect of the independent variable, which is: The proposed program in the Scholastic Electronic Journalism Production in providing students with the study sample for the skill aspect of the study subject, where the value of the ETA square of the study sample scores in the Scholastic electronic Journalism production skills (0.984) which is larger From (0.15), which indicates that the effect of the independent variable on the dependent variable is very strong.

5.2 -Secondly- Discussion:

From the overall results and the hypotheses of the study and moreover the reality of the data reached, which were statistically processed, and within the framework of the results that were exposed, the following is observed:

5.2.1 -The proposed Program in the Scholastic Electronic Journalism Production has a positive and effective effect in developing cognitive achievement in the study sample according to the results of the achievement test, and that progress made on the students of the study sample can be explained to the following:

- Construct the proposed program within the framework of a set of specific skills and standards that the researcher reached after they went through the levels of honesty and consistency.
- Explanation of content related to the Scholastic Electronic Journalism Production and displaying examples, using technological media that facilitated the presentation of multimedia, such as pictures and visual files; this raised their interest, attracted their attention, and increased their motivation and knowledge of the content.
- Hierarchical content analysis helped to obtain information in a correct and easy way.
- Technological means have added the feature of interaction between the researcher and the students, and the students with each other during the presentation of the experimental treatment subject and after the discussion, through a question,

an answer, an addition, or a note to benefit everyone.

All this led to a deep understanding of the cognitive content that appeared in their performance of the post achievement test of the subject of producing electronic school newspapers.

This result is consistent with the results of the studies of: (Behairy, H, 2020), which showed that the Scholastic Electronic Journalism contributed to the development of journalistic techniques among students, and a study (Ibrahim, S, 2019), which demonstrated a statistically significant difference between the mean scores of tribal and remote applications at The study sample in the cognitive aspect of the Scholastic Electronic Journalism design in favor of the post application, and a study (Ebrahim, S, 2019), which concluded that there was a statistically significant difference between the average performance of the two groups of post-study on the achievement test, and a study (Qabal, H, 2017), That demonstrated the effectiveness of the proposed program in the Scholastic Electronic Journalism in developing some writing and journalistic editing skills for high school students, and a study (Youssef, M, 2017) where a statistically significant difference was found between tribal and post-application in the achievement test of the learning topic.

5.2.2 -The proposed Program in the Scholastic Electronic Journalism Production has a positive and effective effect in developing critical thinking skills for the study sample according to the results of the Critical Thinking (Watson-Glacer) Test, and the progress made by students in the study sample can be explained to the following:

- The researcher provides an opportunity for students to express an opinion and criticism on the content and activities of the proposed program; this helped each pupil know the strengths and weaknesses of the producer who produced it and then modified it within the framework of this criticism.
- Each student goes through the stages of critical thinking skills during the Scholastic Electronic Journalism Production, from the identification of an idea to its presentation.

- Providing activities that help develop critical thinking skills.
- According to the principles of constructivist theory, learning is based on transforming the process of acquiring knowledge from an inert process into a mental activity, and this is what the integrated learning environment provided by the researcher provided through the activities provided and provide the appropriate return to them; Which leads the learner to a deeper understanding in the learning process and is the basis of the thinking process.
- The learning environment helped students to build conclusions and evaluate relationships between information. Which leads to the development of critical thinking?

5.2.3 The proposed Program in the Scholastic Electronic Journalism Production has a positive and effective effect in developing the performance of students in the study sample according to the results of the assessment card for the Scholastic electronic Journalism production skills. This progress can be explained to students in the study sample to the following:

- Design learning content in picture: text, images, graphics, and video files that are segmented so that each skill has its own content.
- The period of time explaining the skill is no more than three minutes; which helps students to master the skill.
- Students desire to excel in mastering the skills of the Scholastic Electronic Journalism Production. It led to increased competition between them and increased self-confidence.
- The researcher follows the students and provides support continuously.
- The researcher uses the learning environment to provide students with the skills of the Scholastic Electronic Journalism Production.
- Students complete the various learning activities that the researcher provided them with.
- Integration of educational content, activities, assessment and evaluation methods.

It agreed with Youssef, M's study (2017), as it proved that there is a statistically significant difference between tribal and

post exposure in a the assessment card the skills of editing and directing the Scholastic Journalism and the press arts they contain in favor of post-implementation.

5.3 - Conclusions and Recommendations:

5.3.1 –*Conclusions:* Within the framework of the results reached, a set of recommendations can be drawn, the most important of which are:

- The necessity of providing a stimulating environment for the student, whether inside or outside the school, that contributes to raising the higher thinking skills.
- The necessity of adopting a strategic plan that explains how to integrate and adopt the use of higher-order thinking skills in different educational levels and curricula as well.
- Design creative school media activities; In order to develop aspects of critical thinking among students.
- The need to educate educators to avoid traditional teaching methods that depend on memorization, memorization and the use of effective methods that stimulate student's critical thinking and creativity.
- Conducting training courses for teachers and specialists to encourage teaching using higher-order thinking skills.

5.3.2 -*Recommendations:* Study the relationship between critical thinking and academic achievement for students.

- The use of the Scholastic Electronic Journalism in teaching and the effect on some variables among a sample of students.
- Examine the effect of a program based on higher-order thinking skills to develop self-awareness among students.
- Study the relationship between creative and critical thinking in a sample of students.

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