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The Effect of a Learning Environment Based on Global Education on Promoting Critical Literacy for IUG English Language Juniors

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Abstract:

The purpose of this study was to investigate the effectiveness of using a learning environment based on global education on promoting the juniors' critical literacy in the Islamic University of Gaza who enrolled in the Academic Reading course and majoring in English language at the academic year 2019-2020. Following ADDIE Modal, the researchers designed a hybrid learning environment consisting firstly of a textbook that involved controversial issues and designed at a specific pattern and enriched with a plenty of activities. The second part of the environment is the use of Google Classroom as an electronic platform to enhance the acquisition of the critical literacy skills in the experiment. The third part of the environment is the evaluation system as the researchers used a debate along with an analytical test. The researcher adopted a quasi-experimental approach with one group design. The results of the study demonstrated that the learning environment in dealing with controversial issues was effective in promoting critical literacy skills for juniors. In addition, the study findings revealed that there were statistically significant differences between the pre and posttest in favor of the posttest. From the results, the researchers concluded that global education is an appropriate approach in promoting critical literacy as they share some common principles and goals.

Keyword: critical literacy – learning environment – global education – instructional design

أثر بيئة تعليمية قائمة على معايير التربية الدولية على تمكين طالبات اللغة الإنجليزية بالجامعة الإسلامية بمهارات التنوير النقدي

المخلص:

هدفت هذه الدراسة إلى تقصي أثر بيئة تعليمية قائمة على معايير التربية الدولية على تمكين طالبات السنة الأولى بمهارات التنوير النقدي في الجامعة الإسلامية في غزة والمسجلين لمساق القراءة الأكاديمية باللغة الإنجليزية في العام الدراسي 2019-2020. قامت الباحثة بتصميم بيئة تعليمية مختلطة متبعة نموذج ADDIE حيث تكونت البيئة التعليمية أولاً من كتاب نصوص يتضمن قضايا كثيرة للجدل مصمم على نمط معين غني بالعديد من الأنشطة، والجزء الثاني من البيئة هو استخدام Google Classroom كمنصة إلكترونية لتعزيز اكتساب مهارات التنوير النقدي أثناء التجربة. الجزء الثالث من البيئة هو نظام التقييم الذي استخدم المناظرة و لبروتفوليو بالتزامن مع اختبار تحليلي. استخدمت الباحثة المنهج شبه التجريبي مع تصميم المجموعة الواحدة. أشارت نتائج الدراسة إلى أن بيئة التعلم القائمة على التربية الدولية كانت فعالة في تمكين طلبة السنة الأولى من مهارات التنوير النقدي. بالإضافة إلى ذلك، كشفت نتائج الدراسة عن وجود فروق ذات دلالة إحصائية بين الاختبار القبلي والبعدي لصالح الاختبار البعدي. خلصت الدراسة إلى أن التربية الدولية منهاج مناسب لتعزيز التنوير النقدي لتشاركتها بعض المبادئ والأهداف.

كلمات مفتاحية: التنوير النقدي – بيئة تعلم – التربية الدولية – تصميم التعليم.

Introduction:

During the turbulent twentieth century, the Arab states had early relations with the missionaries and colonial powers as well as the strong exposure to Western knowledge and culture in so-called "Orientalism", which tried to rewrite the Arabs by the eyes of foreigners. Recently, the Arabic countries passed an exceptional situation known as The Arabic spring revolutions which made the average citizen confused with the news he heard from different media. Economic, political and social circumstances obliged the reader to evaluate what he reads and to determine the hidden agendas held by the writers. In both cases, unfortunately, many Arabs took these written texts for granted without giving thought to the ideological, political, and religious motives behind them.

These social and political incidents bring back to mind one of the old concepts in education which is critical literacy as there are no boundaries between both political awareness and education. Education is the first factor in shaping the citizens' attitudes and behaviours- critical literates are good citizens. As a result, schools play a vital role in preparing readers to show some wisdom in reading different texts..

Back to its socio-cultural roots, critical literacy has used learning to "build access to literate practices and discourse resources" (Luke, 2000, p. 449) to use as social capital in the community (Freebody & Luke, 1990; Lankshear & Knobel, 1998). Anderson and Irvine (1982:6) have defined critical literacy as "learning to read and write as part of the process of becoming conscious of one's experience as historically constructed within specific power relations"

Tyner (1998:2) described critical literacy "to reflect, question stance towards the content and forms of printed and electronic media". Critical literacy is the ability to dissociate different texts in media or writing to find any possible discrimination that the author might have embedded in his or her presentation of the world since authors have social and political influence. Critical literates go unnoticed beyond the author's words and examine the manner in which the author has presented his or her ideas about society's norms determining whether these ideas contain gender or racial bias.

In literacy education, one must look at students as language users, not language recipients because language instruction is not only about teaching speaking, grammar, vocabulary, and writing but also about empowering students with the ability to interrogate text for purposes of understanding how authors position readers. " Critical literacy requires students to read the word (decode/encode words and make meaning of those words) and read the world (decode/encode people, communities, and the visible and invisible messages embedded in texts and experiences)" (Freire, 1970; Wink, 2005).

Recently, Hushmendi (2018) stated that students need critical literacy skills to be aware of how texts position them and how we can all be vulnerable in a world surrounded by powerful, calculating messages. Reading, writing, and discussing controversial issues can engage students in learning multiple perspectives, dealing with conflict, developing informed decision-making, and becoming active agents of social change. To fulfil the purposes of critical literacy, teachers should create a democratic learning environment enriched with active learning practices.

UNESCO refers to the learning environment as the "context of educational philosophy or knowledge experienced by the student and may also encompass a variety of learning cultures—its presiding ethos and characteristics, how individuals interact, governing structures, and philosophy"(2019:8). Consequently, we can find several attempts to define a learning environment by identifying its components, it may consist of "learners' characteristics, learning and teaching goals, activities that support learning, assessment strategies that drive and measure learning and a culture that directly infuses a learning environment." Bastanzhyieva (2018)

Many questions related to designing the learning environment need answers; who designed it and how. Gustafson and Branch (2002) have defined instructional design as "a technology for the development of learning experiences and environments which promote the acquisition of specific

knowledge and skill by students". While designing the learning environment of the academic reading course, the researcher put all components under procedure either by analyzing them if they were uncontrolled or by enriching and enhancing if they were reachable. The three components to the procedure were the content by designing a book, the resources by launching an electronic platform, the evaluation by building new tools to evaluate the improvement of learners.

As global education is one of the approaches that foster the global issues discussion and insist on accepting others, the researchers found that it is appropriate to integrate global education in teaching English language to promote tertiary students' critical literacy skills. The Council of Europe White Paper on Intercultural Dialogue which held in June 2008 defined global learning as an "intercultural approach offers a forward-looking model for managing cultural diversity. It proposes a conception based on individual human dignity (embracing our common humanity and common destiny)". Academic reading is the proposed way to put critical literacy and global education together.

The researcher thinks that global education opens a wider door to a fair and just world. In other words, to free the world from poverty and racism, to provide all human beings with chances to be treated with respect and dignity. A major goal of critical literacy to make individuals and countries behave in a manner that meets the needs of the present without compromising the needs of future generations;

In the following lines the researchers presented some studies that answered different questions regarding critical literacy from different aspects; definition, the importance, the implementation and the challenges the instructors faced. The aims of these studies varied; for example, exploring the implementation of critical literacy using a specific framework or a model like Setyaningsih (2019), Hushmenday (2018), Adunyarittigun (2017), Matteson(2017), and Jarda and Fogca (2016) which was a distinguished study because of the great efforts done in defining the language and the text in an innovative way.

Other studies aimed at investigating the level of critical literacy among tertiary students like Lehner (2017) Mkandawire (2015) and Adunyarittigun (2017). Beach(2014) explored the pedagogy and practices of an elementary teacher like. Other studies explored the use of comics and picture books to instruct critical literacy like Vie(2016), Kuo(2015) and Liu(2017) who used magazine articles, newspaper columns and academic papers. The researcher of the current study tried to measure critical literacy levels among juniors in addition to presenting a framework to enhance critical literacy acquisition.

Correlational studies found their way through the previous studies as Semerci(2017) that determined the relation between critical literacy and media literacy while Ko(2013) studied the relation between the critical literacy practices in the class and the proficiency of English language. To uncover the difficulties and obstacles faced teachers and students in implementing critical literacy, studies like Cho(2015) , Kaura(2013), Mkandwire (2015) came to light.

Because it is difficult to master critical literacy as it develops high order thinking skills, critical literacy studies targeted tertiary students like Setyaningsih(2019), Suarcaya and Parsati(2017), Semerci and semerci(2017), Kuo (2015) and Ko (2013). In spite of this, some studies targeted young students like Caffery &Erker (2018) and Hushmendy (2018) and some studies targeted pre-service and in-service teachers like Sultan (2017), Matteson(2017) and Cho(2015). One distinctive study was Stribling(2014) as it targeted kindergarteners.

The tools were used to collect data varied according to the studies' objectives; for instance, we can find researchers who preferred to use a toolkit consisted of observation, in-depth interviews, questionnaires, and reflections like Setyaningsih (2019), Caffery &Erker (2018), Adunyarittigun(2017), Liu(2017), Mkandwire (2015) and Beach (2014). Other studies used pre and

posttest like Liu(2017) and Sultan (2017) which considered one point of agreement between their study and the current study.

Online discussion and sessions were also used to collect data like what had been used in the studies of Vie(2016), Cho(2015) and Nava(2013) in a strong reference to the new trend in using technology in assessing the students. The plenty of measurement tools helped the researchers of this study to build her tools as she mixed between test and recorded debates and finally the portfolio which include reflections, tasks and other written texts.

Another aspect that was determined according to the studies' objectives was the statistical analysis as some qualitative studies like Caffery(2018), Hushmendy(2018), Aduny(2017), Mkandwire (2015), Bobkina(2016) used discourse analysis and content analysis while other quantitative studies like Semerci (2017) and Sultan(2017) used t-test and ANCOVA.

Although most of the previous studies concerned with either enhancing critical literacy like the current study study or using it as an instructional approach to enhance critical thinking like Bobkina(2016) Lehner(2017) and Aduny(2017) , other studies hit the language eras directly like Suarcaya(2017) and Sultan (2017) who worked on critical reading as a dependent variable. On the other hand, Liu (2017) and Ko(2013) addressed English language proficiency to be the variable to be enhanced or measured.

One of the most influential issues addressed by the previous studies and assisted the researcher in the study was those who shed the light on taking a social action which means to explore learning outcomes beyond content knowledge like Caffery and Enker(2018), Hushmendy(2018) and Adunyarittigun(2017).

However global education is a new instructional approach, a plenty of reports, papers and researches came to light. One point all these researches agreed upon is that global education aims to build a global citizen who cares about taking social and global action towards global issues.

Studies like (Roux 2019), Leek(2016), Buzkurt(2016), Bental(2014) and Bamber(2013) examined the views of teachers and stakeholders about global education using questionnaires and surveys to know about the reality of integrating global education in their countries' curriculum. On the other hand, researchers like Pratma(2016), Wolanskey(2016), and Gunel(2015) preferred to go closer and study the ways of integrating it in curriculum presenting their suggestions, recommendations and models while Harshman(2017) specified using films in teaching global education themes.

Wolanskey (2016), Denardis (2015), Hanover (2015), Bourn (2014), and Omidvarl (2013) presented ideas on strategies used in integrating global education in teaching English language as they put the global issues to be practiced within the curriculum of English language teaching. Other studies like Roux(2019), Scoffham (2018) and Kuako (2016) emphasized the role of global education in empowering students with soft skills and critical thinking.

Some previous studies were sponsored by the governments or came to evaluate programmes funded by international institutions like CGE(2018), Biltzer (2014) and DEA(2014) in a strong reference to the increasing importance of global education. Another study came to consider the key challenges and opportunities for GL was the study of Scoffham (2018). Although most of the studies follow the qualitative approach like Wolanskey (2016), Denardis (2015), Hanover(2015), Bourn(2014), and Omidvarl (2013), one agreement's point between the current study and a number of studies like CGE(2018), DeNobile(2014) and Carton(2011) was the use of mixed approach.

The results of the previous studies indicated the importance of global education and the strong presence in the curriculum of many countries like the USA, UK, Canada, and Australia like DeNobile (2014), Bamber (2013), Hanover (2015) and Bratma. Other findings revealed a positive effect on the students' knowledge, skills and attitudes. The results of the current study go along with the previous results.

In Gaza- the sieged strip- there are many attempts to change the teachers' practices towards active learning. UNRWA and MEHE sponsored training programmes to empower teachers with suitable competencies to prepare students for leading the change in their societies and to be a part of the global problems' solutions or at least show sympathy with these issues. Ignoring this significant and influential role teachers play makes this study very necessary to redraw the picture of teachers as they are not only responsible for teaching vocabulary, grammar, pronunciation, listening, speaking, reading and writing.

Teachers should work hard to make students able to determine the writers' bias and tone, to distinguish facts from opinions, and to uncover the hidden ideas while reading. Students who master the previous skills will be able to master the language properly and deeply. This contribution will not occur without addressing crucial issues like critical literacy. To check the effect of employing a learning environment based on global education on promoting the students' critical literacy, this study came to light.

Statement of the problem:

The researcher believes that the problem of the present study has emerged due to some points. Firstly, the need for students to feel confident in addressing controversial issues has become more urgent than ever. Issues such as sexuality, religion, bullying and war can lead to strong, varied and often contradictory responses. The teacher's duty is to raise issues in a way that ensures space for students to express themselves and accept different views from others at the same time.

Secondly, as a supervisor who worked with pre-service teachers during her field experiences in the past few years, the researcher noticed the absence of critical literacy practice inside the classes. Most pre-service and in-service teachers grew up and were educated in an environment where they obtained knowledge as indisputable facts and limited space to say their opinions were permissible. As a result, the researcher saw the need of incorporating critical literacy into the courses taught in the teacher education program as well as practicing them in English language courses like what happened in the current study

Thirdly, by interviewing English language lecturers working for IUG as a pilot questionnaire, it became clear that the curriculum of Academic Reading lacked critical literacy practices. On the other hand, there was a small reference to it in the Discourse Analysis course available for students of Art Faculty while one of the main goals of the English Department is to create critical readers. The results of this meeting helped the researcher in determining the skills students should empower with and they pointed to the percentage 75% to be an indicator for the spoken performance.

Fourthly, the researchers then had an interview with a group of volunteers from the Euro-Mediterranean Observatory on the 15th of May 2019 where the researcher asked about the volunteers' prior knowledge regarding critical literacy skills. Unsurprisingly, none of them could define any of the skills. More questions were about their feeling about the Academic Reading course which should be rich with critical practices and what topics they wanted to study if they had the opportunity to restudy the course. The answers revolved around global education as a good direction to develop students' critical literacy. For these reasons, this study came to answer the main question, which is:

- To what extent does the learning environment based on Global Education promote IUG English language juniors' critical literacy?

The questions of the study:

In order to answer the main question, a group of sub-questions arise:

1. Are there statistically significant differences at ($\alpha \leq 0.05$) in the mean scores in the Analytical Test between the pre-test and the post-test?
2. To what extent can the IUG English juniors master the critical literacy skills according to the Debate Evaluation Card?

Research Hypotheses:

1. There are no statistically significant differences at ($\alpha \leq 0.05$) in the mean scores in the Analytical Test between the pretest and the posttest.
2. IUG English juniors cannot master the critical literacy skills at an average of 75% according to the Debate Evaluation Card.

Definitions of the study

Effect

Effect is the change in the learners' level in critical literacy skills that may result from implementing the suggested learning environment and measured by an analytical test and videoed debate.

A Learning Environment

The educational structure that occurs when the teacher and students are engaged in learning experiences with the purpose of acquiring understanding, evaluating and critiquing complex global issues by means of cross-cultural interactions and based on interactive learning via texts and technology and assessing learning outcomes authentically.

Global Education

Global education is a learning approach which encourages learners to get involved in an interactive process in order to open up their eyes and minds to see a broader global vision, deepen understanding and knowledge, enhance critical thinking and reflection, and encourage dialogues around values and attitudes based on social justice and challenging inequality.

English Juniors

They are the female students who are enrolled in the first semester in the academic year 2019-2020 majoring in English language in the Art and Education departments in the Islamic University of Gaza. They are between 18 and 20 years of age and enrolled at Academic Reading Course.

Critical literacy

Dealing with different texts from a critical perspective involves thinking beyond the text to understand issues related to the author's intentions and hidden agenda. The researcher adopted the dimensions; disrupting the commonplace, exploring multiple viewpoints, focusing on socio-political issues and promoting action and socially just change.

The study limitation

This study mainly dealt with 60 female students who enrolled in the Academic Reading course in the first term of the academic year 2019-2020 in the Islamic University of Gaza. The variables of the study were; the independent variable which was a learning environment based on Global Education while the dependent variable was critical literacy skills.

Methodology

The researcher adopted the quasi-experimental approach. The researcher followed the design of one group with pre- and post-test.



According to Abu alam(2010: 220), this design is the most suitable when it is difficult to find a control group. In IUG, it was the first time to introduce critical literacy via an academic reading course. The researcher chose the sample students randomly and applied the pre-test to guarantee the normal distribution then she applied the learning environment for 14 weeks. Finally, she reapplied the same test to measure the differences and analyzed the results statistically.

The learning environment

Because of the growing importance of technology and the great attitude towards using it in the learners' lives, the researchers adopted a hybrid learning environment and the instructional design model was ADDIE. ADDIE stands for the phases followed in designing the learning environment, implementing and evaluating it. The phases are analysis, design, develop, implement and evaluate. Table(1) showed the components of the learning environment.

Table(1)

The Learning Environments Components

1	A textbook includes controversial issues and activities.
2	A website for group discussion (Google classroom).
3	An evaluation system consists of a debate and an analytical test.

The textbook

The researchers with assistance from instructors who taught Academic Reading previously in the Islamic University determined 14 global issues which were considered controversial in their society to be included in the textbook. Then they prepared a checklist with the proposed issues for the students of English Language majors to choose. After the checklists were distributed, collected and analyzed, the results were concluded in eight issues which were (social media, freelancing, comics, Arabs democracy, literary power, immigration, Hijab and water crisis).

The book presented critical literacy strategies that go along with the objectives agreed upon to be achieved while studying this textbook (finding the main idea, using context clues, drawing conclusions, distinguishing facts and opinions, recognizing bias, determining the tone, inferring, interrogating a text, comparing conflict ideas). The researchers followed these steps below to design the book:

- (1) Developing objectives and the skills
- (2) Selecting themes of controversial issues to be included in the book,
- (3) Choosing the texts to be introduced(articles from international media)
- (4) Composing reading activities.

The book also included various self-learning activities like comprehension and vocabulary questions. In order to connect critical literacy with literature, the last section in each unit of the book introduced a related piece of literature to be studied and have a task to be accomplished implementing the critical literacy strategy introduced in the same unit. The textbook was designed in a colorful, cheerful and attractive way instead of black and white ordinary book.

Google Classroom

To be updated and to achieve one of the global education criteria, it was necessary to apply technology in the class. Google Classroom is one of the learning platforms which offers several benefits for instance, the instructor and the students can access it from any computer through Google Chrome or from any mobile device which means they could access the classroom anytime and anywhere. The researcher prepared 12 assignments providing them with multiple learning resources(online video, a newspaper article, comics and short movies).

The assignments fostered the learning that happened in the class but gave them the opportunity to access different online resources to get more information to help in doing the task. Using Google Classroom gave the instructor and students the privilege of sending emails, sending private comments on assignments, and providing immediate and positive feedback on work.

Evaluation system

From the first moment, the researchers had the approval letter to do the experiment. they had that agreement with the department head to change the Evaluation system. Instead of quizzes and exams as usual, the researcher prepared a new method in evaluating the students which is using voided

debate. The evaluation system includes(participation in the class, a debate, a project, Google Classroom grade, and finally the analytical test)

Tools and Instruments

To collect the data, the researcher built two different tools to capture the overall image of critical literacy empowerment.

1. An analytical test
2. Evaluation card for the spoken debate (audio-recorded debate)

An analytical test

Simulating the exercises students had taken during the semester, the researchers built an analytical test that went behind comprehension of the text to analyze , infer and critique small paragraphs. According to the portions of skills included in the textbook and Google Classroom assignments, the researchers put (31) points divided into (8) questions and covered (10) of the critical skills. The analytical test was intended to reflect the progress of acquiring critical literacy skills from 1 to 10 in the skills list (see Appendix 1). The researchers built the test regarding the following table of specification which identified the proportion of each skill in each unit.(see Appendix 2)

**Table(2)
Table of specifications**

	Context clues	Supporting statements	Evidence	Inference	Facts vice opinions	Implied ideas	Conclusions	Arguments	The tone	The bias	
9.65	0	0	0	0	0	9.65	0	0	0	0	Unit 1
12.95	12.95	0	0	0	0	0	0	0	0	0	Unit 2
16	0	0	9.6	0	0	0	6.45	0	0	0	Unit 3
			5								
9.65	0	0	0	0	9.65	0	0	0	0	0	Unit 4
9.65	0	0	0	0	0	0	0	0	0	9.65	Unit 5
6.45	0	0	0	0	0	0	0	0	6.45	0	Unit 6
19.35	0	19.35	0	0	0	0	0	0	0	0	Unit 7
16.20	0	0	0	12.95	0	0	0	3.2	0	0	Unit 8
								5			
%100	12.95	19.35	9.6	12.95	9.65	6.65	6.45	3.2	6.45	9.65	total
			5					5			

The pilot study

The researcher applied the test on a random sample of (40) female sophomore who already have passed Academic Reading course the last year in the Islamic University of Gaza, the pilot study students share the same characteristics with the sample of the study. The test was conducted on 24th of May 2019. The researchers recorded the results and statistically analyzed it to make sure that the test was valid and reliable.

Validity of the test:

The researcher checked the validity of analytical test following steps that were adopted:

Referee Validity:

The researchers asked a group of English language specialists to referee the analytical test. The referee list contains English language teachers and supervisors and experts in designing learning environments. The referees had one recommendation which was to rearrange the questions' order.

Internal consistency validity:

To compute the internal consistency of the analytical literacy items, Pearson Correlation Coefficient was used. The correlation of the items with the total test was computed .

Table (3)
Correlation coefficient of every item of Analytical Test

Items	P.C.	Items	P.C.	Items	P.C
1	**0.541	12	**0.399	23	**0.637
2	*0.319	13	**0.443	24	**0.522
3	**0.433	14	**0.634	25	**0.459
4	**0.578	15	**0.598	26	**0.613
5	*0.360	16	**0.609	27	**0.698
6	**0.486	17	**0.565	28	**0.531
7	*0.355	18	**0.554	29	*0.380
8	**0.518	19	*0.348	30	**0.449
9	**0.618	20	**0.467	31	**0.525
10	**0.519	21	**0.629		
11	**0.432	22	**0.751		

*r table value at df (38) and sig. level (0.05) = 0.304

**r table value at df (38) and sig. level (0.01) = 0.393

The correlations of the test items showed there was a consistency between the items because the correlation of the test items were significant at (0.05, 0.01). According to the previous results, the test was apparently valid for the study as was indicated by Shrock and Coscarelli(2000).

The test's reliability

To measure the reliability of the test, a Split- half technique was used. The test is reliable if it has the same results no matter how many times it has been applied.

Split-Half Method

Because the items of the test were closed, which means a student either took the grade or not. KR20 had been used ,and because the number of the test's items was odd, Guttman Split-half had also been used to measure the reliability.

Table (4)
Test KR20) and Guttman Split half coefficients of the Analytical)

	No. of Items	KR20	Guttman S.H. coefficients
Total	31	0.908	0.845

The Split-half coefficient to the test's result was (0.845) and KR20 is (0.908) and these results indicate that the test was highly reliable.

The test difficulty coefficient

The difficulty coefficient of each item is measured by finding out the percentage of the wrong answers made by the students and it was calculated via counting the 40 members of the pilot study.

Table (5)
Difficulty coefficient for each item of the Analytical Test

.No	Difficulty coefficient	.No	Difficulty coefficient
1	0.55	17	0.59
2	0.59	18	0.68
3	0.50	19	0.59
4	0.36	20	0.55
5	0.73	21	0.55
6	0.55	22	0.59
7	0.45	23	0.45
8	0.77	24	0.59
9	0.64	25	0.64
10	0.55	26	0.55
11	0.45	27	0.68
12	0.50	28	0.64
13	0.64	29	0.68
14	0.45	30	0.64
15	0.59	31	0.59
16	0.64		
Total difficulty coefficient		0.58	

table (5) showed the difficulty coefficient wobble was between (0.36 – 0.77) and the total average (0.58). According to Tabachnick and Fidell (2007), that previous means are acceptable or in the normal limit.

Discrimination coefficient:

In order to differ between the high achievers and the low achievers, we have to calculate the discrimination coefficient .

Table (6)
Test Discrimination coefficient for each item of Analytical

.No	.D.C	.No	.D.C
1	0.73	17	0.64
2	0.45	18	0.64
3	0.64	19	0.27
4	0.73	20	0.36
5	0.36	21	0.73

6	0.73	22	0.64
7	0.55	23	0.73
8	0.45	24	0.64
9	0.55	25	0.55
10	0.73	26	0.36
11	0.36	27	0.64
12	0.45	28	0.55
13	0.55	29	0.64
14	0.73	30	0.55
15	0.64	31	0.45
16	0.73		
Discrimination coefficient Total			0.57

Table(6) showed the discrimination coefficient wobble were between (0.27 – 0.73) and the total average (0.57) which means each item is acceptable or in the normal limit of discrimination according to the previous reference.

Debate evaluation card

It was hard to convince the students with the merits of debate since it is regarded as a rare practice in the society whether at homes or at schools. Students should work in pairs to choose a global issue to hold their debate using strategies they have practiced during the semester. During the evaluation process, the researchers put themselves in the audiences' shoes to judge the juniors' performance.

In order to evaluate the videoed debate, the researcher built a debate evaluation card. It consisted of three domains, and each domain had five items. the table below shows the domains of the evaluation card.

Table (7)
Domains of the evaluation card

Domains	No. of items
Acceptance	1
Evidence	2
language and power	2
Total	5

The videoed debate evaluation card reliability

To calculate the reliability of the Evaluation card -list, the researchers used the agreement method of evaluators (the instructor and another English teacher).

Each evaluator worked independently and they used the same scale to evaluate the performance of students while watching the videoed debate about one of the global issues.

To measure the reliability of the Videoed Debate Evaluation card, the researchers used an equation of copper.

$$\text{Coefficient of agreement} = \frac{\text{points of agreement}}{\text{Points of agreement} + \text{points of disagreement}} \times 100$$

According to that, five female juniors' performance was evaluated by the instructor and her colleague.

Table (8)
Percentage of Agreement between evaluators to assess the Reliability of Evaluation card -list

Group	First evaluator	Second evaluator	Percentage
Learner 1	24	22	91.7
Learner 2	22	20	90.9
Learner 3	20	19	95.0
Learner 4	18	17	94.4
Learner 5	21	19	90.5
Total			92.50

Table (8) showed that the highest percentage of agreement between evaluators was (95.0), the lowest percentage of agreement was (90.50) and the total reliability was (92.50). Thus, the evaluation card for the videoed debate was highly reliable (Kline,2014)

Result of first question:

The researchers derived the first question as:

Are there statistically significant differences at ($\alpha \leq 0.05$) in the mean scores in the analytical test between the pretest and the posttest?

To answer this question, the researchers tested the following null hypothesis:

There are no statistically significant differences at ($\alpha \leq 0.05$) in the mean scores in the analytical test between the pretest and the posttest.

The researchers implemented T. Test Paired Sample to verify the hypothesis.

Table (9)

T. Test paired samples results of the differences in the analytical test between the pre-test and the post test

	Group	N	Mean	Std. Deviation	t	Sig. value	sig. level
Bias	Pre test	60	1.450	0.891	11.000	0.0001	sig. at 0.01
	post test	60	2.550	0.565			
Tone	Pre test	60	0.783	0.415	13.019	0.0001	sig. at 0.01
	post test	60	1.733	0.516			
Arguments	Pre test	60	0.350	0.481	6.272	0.0001	sig. at 0.01

	post test	60	0.750	0.437			
Conclusion	Pre test	60	0.767	0.427	10.539	0.0001	sig. at 0.01
	post test	60	1.533	0.724			
Implied idea	Pre test	60	1.483	0.701	11.236	0.0001	sig. at 0.01
	post test	60	2.500	0.813			
Facts and opinion	Pre test	60	1.567	0.621	15.219	0.0001	sig. at 0.01
	post test	60	2.617	0.613			
Inference	Pre test	60	1.500	0.676	12.991	0.0001	sig. at 0.01
	post test	60	3.083	1.124			
Evaluation	Pre test	60	1.517	0.651	10.996	0.0001	sig. at 0.01
	post test	60	2.350	0.954			
Evidence	Pre test	60	2.650	0.709	13.923	0.0001	sig. at 0.01
	post test	60	4.950	1.407			
Context clues	Pre test	60	2.033	0.637	10.230	0.0001	sig. at 0.01
	post test	60	3.383	0.922			
Total	Pre test	60	14.100	1.928	37.307	0.0001	sig. at 0.01
	post test	60	25.450	2.849			

“t” table value at (59) d f. at (0.05) sig. level equal 2.00

“t” table value at (59) d f. at (0.01) sig. level equal 2.66

Table (7) shows that there are significant differences at ($\alpha = 0.01$) between the mean scores of the pre-test and post-test in favor of the post test. A quick look at the means showed that the mean of the post-test reached (25.450), whereas the mean of pre-test was (14.100).

As a result, the research's first null hypothesis was rejected and accepted the alternative one. The study applied the "Effect Size" technique to show the extent of computerized language games effect on the juniors empowerment with critical literacy skills due to the experiment .With " $\eta^2 = 0.959$, it indicates a large effect size of using computerized language games in the post test. This means the learning environment based on Global Education is very effective in empowering the juniors with the critical literacy skills.

Result of Second question

The researchers derived the second question as:

To what extent can the IUG English juniors master the critical literacy skills according to the debate evaluation card?

To answer this question, the researcher tested the following null hypothesis:

IUG English juniors cannot master the critical literacy skills at an average of 75% .

To answer this question and verify this hypothesis, the researcher used one sample T.test and calculated the sum of responses, means, , the percentage weight, std. deviation and rank of the three domains as in table (10):

Table (10)

Sum of responses, means, std. deviation, and the % weight and rank of the collocation section of the test.

Field	Mean	Std. Deviation	weight %	t	Sig. value	sig. level
Acceptance	4.033	1.221	80.67	1.798	0.077	not sig.
Evidence	8.050	1.489	80.50	2.861	0.006	sig. at 0.01

language and power	7.583	1.730	75.83	0.373	0.710	.not sig
Total	19.667	2.461	78.67	2.885	0.005	sig. at 0.01

Table (10) shows that percentage weight equals (78.67%) and mean = (19.667). The mean is clearly larger than the middle value (18.75). This means that the significant differences indicate that the results of the calculated percentage are larger than the predicted percentage (75%).

From the above results, the researchers concluded that designing a learning environment based on global Education is so effective. The differences between the pre and posttest indicated that teaching the critical literacy skills is fruitful even though they might be classified as high order thinking skills. On the contrary, the students showed a great progress in their written performance reflecting certain critical literacy like considering the bias and the tone of the author, questioning the messages presented in any text, distinguishing facts from opinions and others. The analysis of the recorded debates affirmed that it is possible to master accepting others, providing reliable evidence and using the appropriate language in the right context.

Recommendations:

In the light of results of the study, the following recommendations are offered, the first point related to the education in Palestine which is in need for a lot of researches that touch all the inputs of the educational system; these inputs represented in ; the strategies, the teacher, the students, the curriculum, the administration and the local community. Another point to be recommended is that teachers of English language should not underestimate the ability of their learners to analyze texts using a critical perspective which is required by necessity from those teachers to change their practice inside the class.

Curriculum designers of English language curriculum need to integrate critical literacy as an important goal in language learning. Moreover, classroom activities that focus on the use and design of texts as a means of critical cross-examination of unfair practices may be required. Supervisors who visit teachers all the time to give them feedback should encourage teachers to guide students to analyze how the authors' choices of English words and structures reveal implicit ideologies. Classroom activities focused on exposing authors' biases based on the words and sentence structures may be more important than being grammatically correct.

There is a need for English language teachers to lead students towards increasing awareness of the importance of project based learning. Leading the change in societies requires learners who do not accept the reality as it is. In the contrast, they need to interrogate, question and seek for the truth to contribute in solving local and global problems.

After finishing the experiment of applying critical literacy practice in Academic reading course, and after analyzing the results, the researchers recommended that:

- Global Education is the most appropriate approach to introduce critical literacy because of the principles they share, like dealing with global issues and raising their critical awareness.
- Hybrid learning environments had the superiority over other environments from the instructor's point of view.
- Following ADDIE instructional design model provided the research with scientific tools to analyze, implement and evaluate the learning environment.

- Using many methods of Global Education like projects, debate competitions and world link methods provided learners with a real chance to practice learning rather than acquiring it.
- Learning environment based on global education broke the boundaries between learners and participating in activities like presentation. Debating and being a part of a project.
- To assess practical skills, instructors need to apply authentic assessment tools like projects

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