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# Using the Flipped Learning Strategy to Develop Faculty of Education English Majors' Critical Reading and Writing Skills Mahmoud Abdel Rahman Mahmoud

#### **Abstract**

This study aimed at investigating the use of the flipped learning strategy to develop Faculty of Education English majors' critical reading and writing skills. In order to achieve the aim of the study the researcher adopted a quasi-experimental design. Sixty students were randomly divided into two intact groups: a treatment group and a control one. The treatment group was taught using the flipped learning strategy while the control one received regular instruction. The instruments of the study included a critical reading test and a In addition to two needs critical writing test. assessment questionnaires of critical reading and writing. Equality between the treatment and control groups on the dependent variables was ensured by comparing the means of scores using 't-test'. After implementing the study, post-testing was undertaken and the data obtained were analyzed using both" t-test" and the effect size. The results revealed that the treatment group significantly surpassed the control one in the post-performance of the critical reading and writing tests. It was concluded that using flipped learning strategy was effective in improving third year English majors' critical reading and writing skills.

**Keywords:** flipped learning – critical reading skills–critical writing skills

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استخدام التعلم المعكوس لتنمية مهارتي القراءة والكتابة الناقدة لطلاب كلية التربية تخصص اللغة الإنجليزية

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# مستخلص

هدفت الدراسة الحالية الى التحقق من مدى تأثير استراتيجية التعلم المعكوس في تنميه مهارات القراءة والكتابة الناقدة. وقد اتبعت هذه الدراسة منهج البحث شبه التجريبي. وتكونت العينة من ستين طالبا من طلاب الفرقة الثالثة شعبه اللغة الإنجليزية جامعه المنيا، وقد تم اختيار العينة بشكل عشوائي وقسمت الى مجموعتين ضابطه وأخرى تجريبية. وتم تدريس المجموعة التجريبية باستخدام استراتيجية التعلم المعكوس بينما تم التدريس بالطريقة المعتادة لطلاب المجموعة الضابطة. وقد أعد الباحث أدوات الدراسة والتي اشتملت على اختبار الكتابة الناقدة واختبار للكتابة الناقدة ومقياس لتقييم استجابات الطلاب في اختبار الكتابة الناقدة. وقد تم التحقق من صدق الادوات وثبوتها. وأظهرت تحليل البيانات باستخدام اختبار (ت) انه يوجد فرق ذات دلاله إحصائية بين المجموعة التجريبية والضابطة في الاختبار البعدي لصالح المجموعة التجريبية وأظهرت نتائج الدراسة التأثير الإيجابي لاستخدام استراتيجية التعلم المعكوس في تنميه مهارات القراءة والكتابة الناقدة لدى طلاب الفرقة الثالثة شعبة اللغة الانحليزية.

الكلمات المفتاحية :التعلم المعكوس- مهارات القراءة الناقدة- مهارات الكتابة الناقدة.

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## Introduction

Successful teaching happens when the effort of the instructor concentrates on the needs of the learners. Success happens when significant learning experiences result in increases in learners' performance as well as their ability to use that knowledge in real life situations. Education should aim to support the development of independent thinkers who are discerning problem solvers, and can use a range of cognitive skills and strategies, including critical reading and writing skills to solve problems. Critical thinking, reading, and writing are among the most important skills that are necessary for succeeding in high school and university.

There are important changes happening in web development that could have an important influence on the way in which it is employed for teaching and learning. The focus on "Blended Learning", which encourages student-centered, self-motivated search of knowledge, has been emphasized by the integration of communication and information technologies into the educational process. The essential piece of blended learning is a strategy called "Flipped learning" which was developed by American educators Jonathan Bergmann and Aaron Sams in 2000.

Bergmann and Sams (2012: 6) mention that there is a necessity for a new teaching strategy to give the learners more time to practice English inside and outside the classroom. At the same time, this new strategy should potentially overcome the problem of the constraints of EFL contexts; therefore, the importance of using a flipped learning strategy has risen. Brinks (2014) states that reducing lectures is one of the main features of the flipped learning process,

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but these lectures are mostly redelivered to learners via pre prepared content materials such as video recordings; however, technology is not always a feature of flipped materials.

Walz (2001)states that, the readers in critical reading are careful, active, reflective and analytic when having a conversation with the writer through the text to read. With the skills acquired in the critical reading instruction, the learners are expected to be judgmental readers. They are required to synthesize, assess, interpret and selectively use the information in texts they read to help them become successful students in this digital era.

Critical writing requires the writer to use evidence and examples to support his/her own ideas to make him/her a more convincing and reliable author. His/her opinion by itself might not be enough to convince the reader, so he/she has to provide evidence to help reinforce his/her argument. According to Rahmat (2019) writing is a skill not many like for several reasons. The problems that critical writers face are (a) linguistic difficulty, (vocabulary, grammar, and language use) (b) physiology difficulty (no interaction between reader and writer), and (c) cognitive difficulty (capitalization, punctuation and paragraphing). Some writers are considered weak because their language ability interferes with their ability to put ideas on paper.

Many researchers assure that flipped learning is very effective in developing the consequences of learning. Assessments and response or adjustments individually to every student in-class create increase in the understanding of course matters. Some of the benefits of flipped learning, as mentioned by Bergmann and Sams (2012) include that a flipped learning strategy provides individualized

learning. In addition, as long as the internet is accessible, learners can study classroom materials anytime and anywhere, which means that this strategy overrides time and place (physical constraints). Kong (2014) mentions another benefit of the flipped learning when applying this new strategy in his study, as it helps the learners to raise their reading and writing skills as well as critical thinking.

DeLozier and Rhodes (2017) state that in the flipped learning strategy the teaching practice of teachers occurs by assigning lectures outside of class and devoting class time to a variety of learning activities. In this practice, students are responsible for reviewing all prepared materials. In this strategy teachers prepare lessons through videos or any multimedia that the students can watch at homes or in any other place by using their tablets or smart phones before attending the class, while the time of the lecture is advocated for exercises, activities, practices and helping solve home assignments.

Alzain (2015) asserts that the flipped learning is a modern technological solution for treating academic weaknesses of students and developing levels of their skills of thinking. Al–Zain adds that it provides instructors with enough time to converse and discuss with learners in classroom instead of memorization. Furthermore, through applying the flipped learning the intellectual abilities of learners can grow up. By using this strategy learners can develop their knowledge in scientific, practical and behavioral sides. Dickenson (2016) clarified that the flipped learning is considered as one of the active practices that enables the learner to connect between what is learned and his/her personal life and experiences. In such process,

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learner will be able to link what he/she learns with his/her intellectual behaviors, until it becomes a part of his/her personality.

The flipped learning, thus means flipping the processes of teaching and learning in the classroom and home by activating the role of modern technological instruments in preparing and offering lessons. Therefore, the teacher formulates the material in which he/she clarifies the new information by using modern audio and visual multimedia and reactive assessment in order to be available for the learner before beginning the lesson. Therefore, the role of the teacher in this strategy is a mediator and a motivator of learners to learn through the prepared materials before class time.

Critical reading is an important component of developing literacy. It is commonly described as involving higher order thinking skills. Critical reading includes the ability to assess ideas and synthesize what one reads and the ability to see the relationships of ideas and use them as an aid in reading. Critical reading originally comes from the concept of critical thinking. It is the application of critical thinking in the process of reading. Highered (2010) points out that critical reading means that readers think as they read. Furthermore, he explains that being critical means reacting to the text and the writer, consciously rejecting or accepting the writer's assertions, asking questions, and applying what we are reading to what we know and belief. He defines it as a technique for discovering information and ideas within a text.

According to Medina and Pilonieta (2006), critical reading is closely related to critical thinking; in both, a student needs to acquire different techniques for defining concepts, interpreting ideas, and

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analyzing a text as a prerequisite for understanding. Kurland (2000) and Ustunluoglu (2004) indicate that through critical reading, learners can identify assumptions, implications, and inferences. Translators need to differentiate between assumptions and facts, as well as differentiate facts from inferences and assess the author's viewpoint. These processes are, of course, of great importance in translation classes.

Wallace (2002) believes that critical reading pays attention to social and ideological factors which mediate readers' access to text. Critical reading is concerned less with the individual author's communicative intent than with ideological effect: the claim is that readers do not need to accept the words on the page as given, but range of interpretations are legitimate. Foreign language also a readers may get different kinds of cultural and ideological assumptions to accept on foreign language texts, thereby offering mainstream or conventional fruitful challenges to readings. Sometimes we read just for pleasure or entertainment; sometimes we read to obtain information, taking it for granted that the information is reliable. However, critical reading means analyzing, evaluating, and making judgments on the basis of what we read.

In the light of what has been mentioned it is clear that critical reading involves presenting a reasoned argument that evaluates and analyzes the text. The aim of critical reading is not to find fault but to assess the strength of the argument. With critical reading, a reader makes different interpretations that lead a first step towards formulating own approaches. It is the process, in which students participate in an inner dialogue with the reading text, identify the

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audience, make inferences, and guess the meaning of words in context.

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Critical writing is important for school and university learners, writers and bloggers. Many people think that critical writing means to include criticism and sarcasm in their writings. But the real definition of critical writing is forming a conclusion on the basis of evidence. Tsui (2000) emphasizes writing as a language skill which employs factors more than simply having something to say besides knowing correct spelling, grammar, and punctuation. Writing, as Tsui (2000) argues, involves an understanding of how ideas can be pieced together to send a broader meaning. Moreover, while language learners can learn much from experience and contact with good examples, they cannot consciously improve their writing without knowing how the language works to convey ideas to readers.

According to Knott (2002) critical reading is an important precursor to critical writing. Critical writing depends on critical reading. Hence, achieving proficiency in critical reading requires the use of critical reading strategies. Furthermore, Axelrod and Cooper (1999) state that the development of advanced critical writing skills is a direct result of enhanced critical reading which can be achieved through the application of selected critical reading strategies.

Fails (2009: 1) points out that critical writing initiates thinking more than speaking or reading. Writing is a response; a reaction to thought and feeling about a particular subject. Writing has a linear and logical flow making the self- correction of thinking a more natural step in the process. Writing combines subject and object

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.Marchant (2005: 1-3) emphasizes that critical writing should arise out of the critical reading of the text and may take several forms:

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- -An evaluative essay expresses the main idea of a text, assesses its strengths and weaknesses and expresses a critical judgment of its effectiveness.
- -A response essay expresses a reasoned stance on a conclusion about the issue to relevant examples or real life situations.

Wallace and Wray (2006: 1) mention that a critical essay or review begins with an analysis or exposition of the reading, article by article. Each analysis should include the following points:

- An evaluation or judgment of the logical consistency of the writer's argument.
- -A presentation of the author's conclusion or suggestion for action.
- A summary of the writer's explicit or implied values.
- -A summary of the author's point of view, including a brief statement of the author's main idea.
- An outline of the important facts and lines of reasoning the author used to support the main idea.
- An evaluation of the author's work including an assessment of the facts presented on the basis of correctness, relevance and whether or not pertinent facts were omitted.

To conclude, it is clear that critical writing requires strong writing skills. It is writing which analyses and assesses information usually from different sources. When writing critically, we are developing a reasoned argument and participating in educational debate.

# **Context of the Problem**

Pre-service teacher education programs share the goals of preparing competent graduates who will successfully make the transition of the world of teaching. Students joining the Faculty of Education are expected to become a part of the academic community entering into the teaching profession .They have difficulty in selecting author's major points of view. They are also not able to synthesize and re structure ideas .Besides, a lack of ability, there is a lack in reading and writing critically.

The researcher conducted a number of informal interviews with twenty students of third year English majors, Faculty of Education, Minia University. The purpose of the interview was to identify if they receive any training courses about critical reading and writing skills. The researcher asked them if they had been trained on critical reading and writing skills or have any discussions about them. As a result of these interviews 95 percent of students confirmed that they were less proficient in these skills and need to develop critical reading and writing skills.

In order to document the problem of the present study, the researcher developed two questionnaires validated by EFL and TEFL staff members who are concerned with teaching reading and writing. It was applied on twenty students enrolled in the third year English majors at the Faculty of Education, Minia University to assess their needs for developing their level of performance in critical reading and writing skills.

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Results of the critical reading questionnaire showed that 90 percent of students responding to the questionnaire are in need of developing the critical reading skills. These skills include:

- identifying the supporting details in a text .
- identifying strong and effective reasoning .
- identifying valid conclusion, bias of the author towards a given subject.
- determining the central purpose of the topic .
- analyzing a text to identify the main idea.
- judging the evidence employed in the text .
- differentiating between facts and opinions.
- inferring information from the text .
- identifying the meaning and a type of figurative language .

Results of critical writing questionnaire showed that 95 percent of the students were in need of developing critical writing skills. These skills include:

- Writing a clear and specific thesis.
- Writing an evaluation of strong use of evidence
- Writing an evaluation of a weak use of evidence.
- Writing an essay in response to a given text.
- Using effective transitions to connect ideas.
- Writing valid conclusion.
- Identifying strong and effective reasoning.
- Analyzing a text to identify the type of figurative language.
- Using good organization to enhance the central idea.
- Differentiating between poor and strong thesis statement.
- Evaluating the writer's choice of words in a certain text.

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- Writing an evaluation of strong use of evidence
- Developing the thesis with logical argument.

Furthermore, this state of affairs was more emphasized by reviewing the literature. Many authors and research workers such as Kong and Brinks(2014) emphasized that using flipped learning increases students critical reading and writing skills as critical thinking. They pointed out that the skills of application, analysis, synthesis and evaluation (higher-order thinking skills) could improve with flipped learning, contrary to the skills of knowledge and comprehension specified by Anderson, Krathwohl, and Bloom (2001) as lower-order thinking skills.

What was mentioned led the researcher to investigate the effect of using the flipped learning strategy to develop third year English majors' critical reading and writing skills at Faculty of Education, Minia University.

# Statement of the Problem

Based on the literature reviewed and the results obtained through the needs assessment questionnaires, it became obvious for the researcher that third year English majors' need to develop their critical reading and writing skills. Therefore, the current study would investigate the use of flipped learning strategy to develop third year Faculty of Education English majors' critical reading and writing skills.

# **Objectives**

The present study tried to identify:

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1- the effect of using the flipped learning strategy in developing Faculty of Education third year English majors in critical reading skills.

2- the effect of using the flipped learning strategy in developing Faculty of Education third year English majors in critical writing skills.

# **Questions**

The present study attempted to find an answer to the following questions:

1-What was the effect of using the flipped learning strategy in developing Faculty of Education third year English majors' critical reading skills?

2-What was the effect of using the flipped learning strategy in developing Faculty of Education third year English majors' critical writing skills?

# **Hypotheses**

The following hypotheses were tested:

1-There would be a significant statistical difference (favoring the treatment group) between mean scores obtained by the participants of the treatment group and the control group on the critical reading post-test.

2- There would be a significant statistical difference (favoring the treatment group) between mean scores obtained by the participants of the treatment and the control group on the critical writing posttest.

# Significance

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- 1-Few studies have been conducted on investigating the effect of using the flipped learning strategy on developing critical reading and writing skills. The present study tried to fill the gap in the review of literature.
- 2- The flipped learning strategy gives more freedom to instructors to decide upon how much time to spend with each student. Also, the study is significant for EFL instructors in order to:
- (a) provide them with a strategy based on flipped learning for teaching English language.
- (b) Third year English majors had the chance to be acquainted with flipped learning for developing critical reading and writing skills.
- 3- Parents could get the benefit from this study by encouraging their children to be better in English language. It offered more transparency for parents, who would know exactly what their children are preparing for at the educational institutions. This could also improve the communication between parents and instructors.
- 4- It helped students to develop positive attitudes toward critical reading and writing. It also encouraged them to do their best in learning English as they can learn anytime and anywhere. Moreover, it helped them to improve their sentence and paragraph writing, enhance their linguistic skills, promote their self-confidence and thinking skills and depart them from over dependence on texts.
- 5- It provided EFL curriculum designers with a flipped learning strategy which helps them during practicing their work as designers.

# **Delimitations**

1-The study would be delimited to third year English majors' at Minia University, Faculty of Education.

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- 2- Faulty of Education, Minia University would be the place in which the study would take place. Only sixty students of the third year English majors would participate in the study. Participants of the study would be randomly assigned to thirty treatment group and thirty control group.
- 3- The treatment was implemented in the first term (2021); two hours a week. (25 hours)
- 4-Critical reading skills would be delimited to the sub skills that were mostly needed by third year English majors and that were decided after administrating a questionnaire. These skills were as follows:
- Identifying the main idea.
- Using inference to answer questions.
- Distinguishing between facts and opinions.
- Using contextual clues to identify the meaning.
- Identifying the author's purpose.
- Assessing weaknesses of an argument.
- -Identifying the author's point of view towards a given topic.
- Evaluating the writer's choice of words.
- Judging the use of evidence in a text.
- Identifying the biases of the author in a text.
- -Identifying stated and implied main idea in the text.
- Differentiating between types of figurative language.(metaphor-simile-assonance-personification-alliteration.).
- Identifying the supporting details.
- Identifying valid conclusion

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5-Critical writing skills would be delimited to the sub skills that were mostly needed by third year English majors and that were decided after administrating a questionnaire. These skills were as follows:

- Writing a clear and specific thesis.
- Writing an evaluation of strong use of evidence
- Writing an evaluation of a weak use of evidence.
- Writing an essay in response to a given text.
- Using effective transitions to connect ideas.
- Writing valid conclusion.
- Analyzing a text to identify the type of figurative language.
- Using good organization to enhance the central idea.
- Differentiating between poor and strong thesis statement.
- Evaluating the writer's choice of words in a certain text.
- Writing an evaluation of strong use of evidence
- Developing the thesis with logical argument.
- -Recognizing cause to effect reasoning.
- Providing details or facts to support the topic.
- Differentiating between topic sentence and thesis statement.
- Supporting the argument differently.
- -Judging the evidence the text employs.
- Evaluating the strength of an argument

#### **Definitions of terms**

# Flipped learning

According to DeLozier and Rhodes(2017:141) flipped classroom is a modern strategy in which the teacher provides the content of subject for students in several forms such as recorded lectures, videos, and electronic readings, so that students can

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review such materials and understand information before attending the classroom. In classroom, the teacher starts providing opportunities to discuss, review, and analyze such information. Then, students start working in groups or individually to complete several activities or projects inside the classroom.

Flipped learning, according to Ekmekci (2017:152) is a pedagogical strategy in which the typical activities of classroom lectures followed by homework in common teaching practice are reversed in order, and often integrated or supplemented with instructional videos.

Trairut, and Namon, (2015)defined flipped classroom as it is a strategy of teaching that permits the students to study at home and do their homework at school through using technology multimedia as an educational management tool and examine the student's development.

Bishop and Verleger (2013:2) defined the flipped classroom as, "A new pedagogical strategy, which employs asynchronous video lectures .and practice problems as homework, and active, groupbased problem solving activities in the classroom.

The researcher operationally defined flipped learning as an educational strategy of teaching in which the learners in the third year English majors' study the topics by themselves using media lessons such as videos and YouTube that should be completed outside of the classroom and prior to class and then applying the knowledge by providing activities and sufficient training during practical working class with the instructor.

# **Critical Reading**

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Wheeler (2018) stated that critical reading means actually thinking about the subject, moving beyond what the original essay concluded to the point of how the author reached that conclusion and the degree to which that conclusion is accurate. For Abu Shihab (2011:.212), it is learning to evaluate, draw inferences and find the conclusions based on the evidence.

Wang and Gierl(2011:169) defined critical reading as "the reading skills that involved a higher living of thinking in which the reader uses a questioning attitude, logical analysis and inference to judge the worth of what is read."

Rashidi and Asgharzadeh (2011) mentioned that critical reading refers to an awareness of the fact that all texts are crafted objects, written by persons with particular dispositions or orientations to the information, regardless of how factual or neutral the products may attempt to be .

Wray and Wallace (2011: 29) indicated that critical reading is the ability to read between the lines in an attempt to find out about the writer's stance, the strategic organization of the text, the nature of the writer's argument and underlying aims and agendas. In the same context , Huijie (2010: 40) added that critical reading analyzes not only what a text says but also how it is said.

Richards & Schmidt (2002:134) stated that critical reading demands the reader to make judgments about what they read, this kind of reading requires posing and answering questions about the text and the author.

According to the researcher, critical reading is the ability to make judgments, inferences and distinguish between facts and

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opinion; and recognize the author's purpose or points of view. It means reading with the goal of finding deep understanding of a material.

# **Critical Writing**

Wang, Kanfer, Hinn, and Arvan (2004:1-20) defined critical writing as "a writing process in which students complete tasks in reflective thinking oriented course activities."

According to the researcher, critical writing is the ability to analyze and evaluate information, usually from many sources to develop an argument through an ongoing process of reflecting, researching, note-making, reading and writing.

# **Theoretical Background**

Nowadays, the philosophy of constructivism has spread through the world; and it seems that this philosophy has become the most common in education. This might be because the concepts of this philosophy have been supported by the advance of digital technology which offers large variety of activities, in which the activities include those required by constructivism. The constructivist view is considered as one of the leading theoretical positions in education. There is no universal definition of constructivism. For some it is a theory of learning, for others it is a theory of knowledge, and for others still it is a pedagogical theory. Additional views include theory of science, educational theory or an all-encompassing worldview.

According to Driscoll (2005: 387) "Knowledge is constructed by learners as they attempt to make sense of their experiences. Constructivists confirm that to be able to acquire knowledge, it is

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necessary to experience that knowledge personally. Driscoll (391) points out that instructors should provide the learners with "an opportunity to explore and learn something of personal interest" .Driscoll (2000) shows that constructivism learning theory is a philosophy which improves students' logical and conceptual growth. The underlying concept within the constructivism learning theory is the role which experiences or connections with the adjoining atmosphere play in student education. The constructivism learning theory argues that people produce knowledge and form meaning based upon their experiences.

Elliott ,Kratochwill, , Littlefield , Travers, (2000: 256) discuss what is meant by constructivism and assure that it is an approach to learning that hold that people actively construct or make their own knowledge and that reality is determined by the experiences of the learner. Typically, this continuum is divided into three broad categories: Cognitive constructivism based on the work of Jean Piaget, social constructivism based on the work of Lev Vygotsky, and radical constructivism. According to the Graduate Student Instructor Teaching and Resource Center (2016:5).Cognitive constructivism states knowledge is something that is actively constructed by learners based on their existing cognitive structures.

Tam (2000) lists the following four basic characteristics of constructivist learning environments, which should be considered when implementing constructivist instructional strategies:

- 1) Knowledge will be shared between teachers and learners.
- 2) Teachers and learners will share authority.
- 3) The teacher's role is one of a facilitator or guide.

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4) Learning groups will consist of small numbers of heterogeneous students.

The flipped learning strategy can be used to enhance instruction and improve student motivation, collaboration, comprehension and student achievement. The positive effect of the flipped learning strategy has been recently recorded in many studies such as Ekmekci (2017), Lee and Wallace (2017)

Some studies have been conducted on flipped learning to measure its effects. For example Hashemifardnia et al investigated the effect of implementing flipped classrooms on Iranian junior high school students'. The sample included 50 Iranian preintermediate students were chosen and randomly assigned into two equal groups; one treatment group (flipped classroom) and one control group (regular classroom). After that, both groups were pretested through a reading test. After that, the researchers put the respondents of the treatment group in a flipped classroom. The flipped classroom was equipped with Internet, computer and projector. The students were required to read each text before coming to the class and discuss it with their classmates. On the other hand, the control group was taught in the regular classroom. Before teaching each text, the researchers provided background knowledge for the control group and after teaching each text, the students were required to answer some questions related to the text. In the last session, the post-test of reading was administered. The findings revealed that the treatment group significantly outperformed the control group on the post-test.

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Ekmekci (2017) compared flipped and regular face-to-face lecture-based writing classes on the basis of writing performances with 23 Turkish English Language Teaching (ELT) students in the experimental group and 20 ELT preparatory class students in the control group for fifteen weeks. The flipped classroom significantly outperformed the regular one after the treatment process. Besides, the majority of the students in the flipped learning group held positive attitudes towards the received instruction.

In the same year, Lee and Wallace (2017) attempted to examine whether flipped learning strategy enhanced the English learning of South Korean EFL learners. The sample consisted of 79 participants, 39 learned English through communicative language teaching approach, while 40 studied English in a flipped classroom. Data were collected from the participants' achievements in three major tasks, their responses to three surveys, and the teacher's notes on the students' level of participation in the process of their English learning. The results showed that the flipped learning classroom's participants had higher average scores in their final three tasks than their counterparts in the communicative class. Furthermore, the researchers found that students in the flipped learning were more engaged in the learning process than those in the regular classroom.

#### Method

# The Research Design

The present study used a pre- post control group design (a quasi-experimental design). A treatment group and a control one were exposed to pre-post means of getting data. The treatment

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group only was instructed and trained through a program based on using flipped learning strategy to develop critical reading and writing skills that are assigned to be taught during the first term.

# **Participants**

# 1 - The Treatment Group

Participants of the treatment group (thirty male and female students) were randomly chosen .They were instructed in some critical reading and writing skills using a program designed by the researcher using the flipped learning strategy.

# 2- The Control Group

Participants of the control group (thirty male and female students) followed the regular method of instruction in the critical reading and writing course. They were instructed using the regular method of instruction.

#### 3- The Instructor

The researcher himself was the instructor who taught the treatment group. While another instructor with nearly the same qualifications taught the control group.

# **Variables**

# 1 - The Independent Variable

The use of flipped learning strategy that was introduced to third year English majors students at the Faculty of Education.

# 2-The Dependent Variables

- 1 Developing critical reading skills of third year English majors.
- 2- Developing critical writing skills of third year English majors.

# 3- The Control Group

1-Language proficiency

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2-Years of studying English

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- 3- Level of performance in some critical reading skills.
- 4- Level of performance in some critical writing skills.

# Instruments and materials of the study

Two needs assessment questionnaires were developed by the researcher:

- 1-The first questionnaire was to identify the main critical reading skills that were most needed by third year English majors.
- 2- The second one was to identify the main critical writing skills that are most needed by third year English majors.
- 3- A critical reading test
- 4- A critical writing test
- 5- A critical writing rubric.

# The Critical Reading Test

The critical reading test was assigned for third year English majors Faculty of Education to achieve the following objectives:

- 1 To evaluate third year English majors' critical reading skills.
- 2-To evaluate the degree of improvement of the treatment and control groups' performance.

# **Construction of the Critical Reading Test**

A-It consisted of (31) questions covering the most important and the most emphasized objectives of the program.

B-Two hours were assigned for responding to the critical reading test.

C-The items were of the following types:

- 1 Multiple choice items.
- 2- Completion Questions.

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3- Post reading questions. (Reading comprehension)

D-The total score of the test was 50 marks.

E-An introductory paper was attached to inform students with the purpose of the test and the time allowed to complete it and an answer sheet was given.

# Validity of the Test

A pilot study was conducted a month prior to the administration of the program to estimate the validity and the reliability of the critical reading test. Ninety students from third year English majors were chosen covering different levels of Achievement; low, middle and high. t-value (14.258) is significant at 0.01. See table (1)

Table (1) t-value of the highest and the lowest quarters in the Critical Reading Test

test	Total	High Group		Low	Group		" <b>†</b> "
	Score	N=10		N=10		DF	•
		Mean	SD	Mean	SD		value
Critical	50	32.70	2.452	15.40	2.951	18	14.258*
Reading	30	32.70	2.432	13.40	2.931	10	14.236

<sup>\*</sup>Significant at 0.01.

# The Reliability of the Test

To establish the reliability of the test the researcher used Alfa–Cronbach Formula. Alfa reliability reached (0.706) and this coefficient has a statistical significance that showed the reliability of the test.

Table (2)

Alfa-Cronbach's Reliability

Value of the Critical Reading Scale

Alfa-Cronbach 's	No.of Items			
0.706	10			

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# **The Critical Writing Test**

The critical writing test was assigned for third year English majors at the Faculty of Education to achieve the following objectives:

- 1- To evaluate third year English majors' critical writing skills.
- 2- To evaluate the degree of improvement of the treatment and control groups' performance.

# **Construction of the Critical Writing Test**

- A-It consisted of (16) questions covering the most important and the most emphasized objectives of the program.
- B-Two hours were assigned for responding to the critical writing test.
- C-The items are of the following types:
- 1- Writing a valid conclusion.
- 2- Writing the type of figurative language. (metaphor- simile- assonance- personification-alliteration.)
- 3- Using effective transitions to connect ideas.
- 4- Differentiating between poor and strong thesis statement.
- 5- Analyzing the evidence.
- 6- Writing a "cause to effect paragraph."
- 7- Writing an argumentative essay.
- 8- Evaluating the strength of an argument.
- 9- Writing an evaluation of strong use of evidence.
- 10- Writing an evaluation of a weak use of evidence.
- D-The total score of the test was 50 marks.
- E- An introductory paper was attached to inform students the purpose of the test and the time allowed completing it and an answer sheet was given.

# Validity of the Test

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A pilot study was conducted a month prior to the administration of the program to estimate the validity and the reliability of the critical writing test. Ninety students from third year English majors were chosen covering different levels of Achievement low, middle and high. T-value (19.420) is significant at 0.01. See table (3)

Table (3) t-value of the highest and the lowest quarters in the Critical Writing Test

Total		High Group N=10		Low Group N=10		DF	"t"
	Score	Mean	SD	Mean	SD		value
Critical Writing	50	32.60	2.366	12.70	2.214	18	19.420*

<sup>\*</sup>Significant at 0.01.

# The Reliability of the Test

To establish the reliability of the test the researcher used Alfa–Cronbach Formula to compute the reliability of the test. Alfa reliability reached (0.819) and this coefficient has a statistical significance that shows the reliability of the test.

Table (4)

Alfa-Cronbach's Reliability

Value of the Critical Writing Scale

Alfa-Cronbach 's	No.of Items		
0.819	10		

# **Results and Discussion**

## Pre -Testing

# 1-Pre-Testing of the Critical Reading Test

To guarantee that both treatment and control group had almost equal knowledge and experience, the researcher administered pretesting of the critical reading test .The results showed that both

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groups had almost the same level in performance in the critical reading skills. Table (5) shows the mean scores, standard deviation and t-value obtained by the two groups.

Table (5) t– value of Scores obtained from the pre–Critical Reading of Both the Treatment and Control Groups (N=30)

Part	Group	Mean	Std. Deviation	Mean Difference	"t" value	DF	Sig.
Total -	Treatment	26.20	4.915	0.600	0.428	58	0.670
	Control	25.60	5.893	0.000			

Not Significant at 0.05Level.

# 2-Pre-Testing of the Critical Writing Test

To guarantee that both treatment and control groups had almost equal knowledge and experience, the researcher administered pre-testing of the critical writing test .The results showed that both groups had almost the same level of performance in the critical reading skills test. Table (6) shows the mean scores, standard deviation and t-value obtained by the two groups.

Table (6)
t- value of Scores obtained from the pre-Critical Reading of Both the Treatment and Control Groups (N=30)

Dort	Croup	Mean	Std.	Mean	"t"		
Part	Group	Mean	Deviation	Difference	value	DF	Sig.
Total	Treatment	21.23	5.757	2.033	1.275	58	0.207
	Control	23.26	6.570	2.033	1.2/3		

Not Significant at 0.05 Level.

# **Analysis of Posttest Results**

# Analysis of the First Hypothesis Results

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Hypothesis 1 predicted that there would be a significant statistical difference (favoring the treatment group) between mean scores obtained by the participants of the treatment group and the control group on the critical reading post-test. Statistical analysis showed that this hypothesis was accepted as t-value(13.359\*)is significant at(0.01.) and beyond favoring the treatment group. Table (10) below shows the data obtained to test this hypothesis.

Table (7)

Means, Standard Deviation, Mean Difference and "t" value of both the Treatment and

Control Groups on the post administration of the Critical Reading Test (N=30)

Control Groups on the post durininstration of the Ontiodi Reading Test (14–30)							
Part	Group	Mean	Std.	Mean	DF	( t )	
rait	Group	Mean	Deviation	Difference	Di	value	
Dort 1	Treatment	3.53	0.937	1 567	50	7.004*	
Part 1	Control	1.97	0.765	1.567	58	7.094*	
Part 2	Treatment	2.93	0.980	1.167	58	5.234*	
rait ∠	Control	1.77	0.728	1.10/	38	3.234**	
Part 3	Treatment	3.60	0.770	1.100	58	5.356*	
rail 3	Control	2.50	0.820	1.100	36	3.330*	
Part 4	Treatment	3.63	0.669	1.200	58	6.225*	
rail 4	Control	2.43	0.817	1.200			
Part 5	Treatment	3.33	0.802	1.433	58	7.109*	
rail 3	Control	1.90	0.759	1.433		7.109*	
Part 6	Treatment	2.90	0.607	0.700	50	4.250*	
rait ()	Control	2.20	0.664	0.700	58	4.259*	
Dort 7	Treatment	3.30	0.952	1 400	50	6 440*	
Part 7	Control	1.90	0.712	1.400	58	6.449*	
Part 8	Treatment	4.03	0.809	1.167	50	4.287*	
rail o	Control	2.87	1.252	1.10/	58		

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Part 9	Treatment	4.87 0.900 1.500		58	5.997*		
	Control	3.37	1.033	1.300	30	3.997*	
Part 10	Treatment	6.20	1.095	1.722	58	4.825*	
	Control	4.47	1.634	1.733			
Total	Treatment	38.33	3.447	12.067	58	13.359*	
	Control	25.37	4.047	12.967			

<sup>\*</sup>Significant at 0.01.

From the above table , it is clear that there were statistical significant differences between mean scores of both treatment and control group on the post critical reading test at the significance level (0.01.) favoring the treatment group.

# Analysis of the Second Hypothesis Results

There would be a significant statistical difference (favoring the treatment group) between mean scores obtained by the participants of the treatment and the control group on the critical writing posttest. Statistical analysis showed that this hypothesis was accepted as t-value(18.128\*) is significant at(0.01.) and beyond favoring the treatment group.

It is clear in the following table that statistical significant differences between mean scores of both treatment and control group on the post critical writing test at the significance level (0.01.) favoring the treatment group.

Table (8)

Means, Standard Deviation, Mean Difference and "t" value of Both the Treatment and

Control Groups on the post administration of the Critical Writing Test (N=30)

Part	Group Mean		Std.	Mean	DF	(t)
	Group	Wodii	Deviation	Difference	٥.	value
Part 1	Treatment	3.20	0.847	1.167	58	6.105*
	Control	2.03	0.615	1.107	36	0.105
Part 2	Treatment	3.33	0.711	1.367	58	6.753*

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	Control	1.97	0.850			
Part 3	Treatment	3.27	0.740	1.500	58	7.675*
	Control	1.77	0.774	1.300	36	7.073*
Part 4	Treatment	6.17	1.464	3.300	58	8.358*
	Control	2.87	1.592	3.300	36	0.550*
Part 5	Treatment	3.07	0.828	1.200	58	6.770*
	Control	1.87	0.507	1.200	36	0.770*
Part 6	Treatment	3.40	0.621	1.433	58	8.600*
	Control	1.97	0.669	1.433		0.000
Part 7	Treatment	3.30	0.837	1.367	58	7.108*
	Control	1.93	0.640	1.307		
Part 8	Treatment	3.30	0.750	1.533	58	8.037*
	Control	1.77	0.728	1.333		
Part 9	Treatment	3.37	0.809	1.500	50	o 020*
	Control	1.87	0.629	1.300	58	8.020*
Part 10	Treatment	3.90	1.242	2.167	58	8.651*
	Control	1.73	0.583	2.107	36	0.031
Total	Treatment	36.30	3.650	16.533	58	18.128*
ıotaı	Control	19.77	3.411	10.333		10.120

<sup>\*</sup>Significant at 0.01.

# Conclusion

The current research examined the effect of using flipped learning program on improving critical reading and writing skills of third year English majors at the Faculty of Education. To achieve this aim, the researcher developed some instruments: a critical reading test and a critical writing test. The sample was two intact groups (60 students). They were randomly selected and equally divided into a treatment group and a control group. Both groups were pre-tested. After ensuring their equivalence, the treatment group students were taught critical reading and writing using the flipped learning program, while the control group students were taught according to the regular way. After teaching the program, both groups were post-

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tested using the same instruments used in the pre-testing. Results of the study showed significant differences between the mean scores of the treatment group and those of the control group on the post critical reading test and post critical writing test in favor of the treatment group

#### Recommendations

In the light of the results obtained in the present study, a number of recommendations are hoped to be helpful in teaching English in general and in teaching critical reading and writing in particular.

- 1- Policy makers are advised to present English courses through using technology devices in the classroom and provide sufficient training for in-service teachers on how to use flipped learning.
- 2- Curriculum designers are advised to include critical reading and writing courses to third year English majors' students and use effective methods that depend on using technology to promote students' participation such as flipped learning and Web-quest.
- 3- Faculties of Educations are advised to train pre -service teachers practically on how to use flipped learning, train pre -service teachers on electronic lesson planning and increase the teaching of flipped learning in their courses for pre service teachers.
- 4- Egyptian instructors are advised to motivate their learners to communicate in and outside schools and develop themselves to keep up with the latest technology advances in learning. Instructors are also advised to take courses which related to the critical reading and writing skills and move from the regular strategies in teaching into new modern strategies such as flipped learning.

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5- Supervisors should conduct training programs that can develop and enhance English teachers' performance in teaching critical reading and writing skills and prepare teacher guide to help teachers in the application of critical reading and writing.

6-It is recommended to use the current program in teaching for secondary and preparatory stages to train students on critical thinking.

# **Suggestions for Further Researches**

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- 1- Investigating the impact of using flipped learning in developing English majors' creative reading and writing.
- 2- Investigating the impact of flipped learning strategy to develop cognitive and teaching skills.
- 3- Using flipped learning to develop listening and speaking skills.
- 4- Investigating the effect of using critical thinking in developing critical listening skills.
- 5-Investigating the effect of using flipped learning in developing argumentative writing.
- 6- Investigating the effect of using flipped learning in developing critical thinking.

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