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A Blended Learning Program Based on Cognitive Apprenticeship for Developing Critical Reading and Academic Enablers among EFL Pre-Service Teachers

BY

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ABSTRACT

This study attempted to investigate the effect of a blended learning program based on cognitive apprenticeship to develop EFL pre-service teachers' critical reading skills and academic enablers. The Quasi-experimental Design with Pretest was used where two intact classes of second-year EFL pre-service teachers, Faculty of Education, Benha University were randomly assigned as a control group (n= 34) and experimental group (n=36) . Instruments of the study included an EFL critical reading skills test and EFL academic enablers scale. The study sample was administered to a critical reading skills test and an academic enablers scale both before and after the treatment. For 14 sessions, participants in the experimental group were trained through the blended program that based on cognitive apprenticeship to develop their EFL critical writing skills and the academic enablers' dimensions while those in the control group received their regular instruction. Findings of the study through independent samples t-test revealed a statistically significant difference at 0.01 between the mean scores of the control group and experimental group students in the post administration of the EFL critical reading skills and academic enablers in favor of the experimental group. Therefore, it could be concluded that blended learning program that based on cognitive apprenticeship had a significant effect on second-year EFL pre-service teachers' critical reading skills and academic enablers.

Key words*:* *Blended Learning, Cognitive Apprenticeship, Blended Cognitive Apprenticeship, EFL Critical Reading Skills, Academic Enablers.*

برنامج تعلم مدمج قائم على التلمذة المعرفية لتنمية مهارات القراءة الناقدة والتمكين الأكاديمي لدى معلمى اللغة الإنجليزية كلغة أجنبية قبل الخدمة

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مدرس بقسم المناهج وطرق التدريس وتكنولوجيا التعليم
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تهدف الدراسة الى بيان مدى فاعلية إستخدام برنامج تعلم مدمج قائم على التملذة المعرفية لتنمية مهارات القراءة الناقدة والتمكين الأكاديمي لمعلمى اللغة الإنجليزية كلغة أجنبية قبل الخدمة . أستخدمت الباحثة المنهج شبه التجريبي والقياس القبلي والبعدي لعينة الدراسة من طلاب الفرقة الثانية شعبة اللغة الإنجليزية بكلية التربية جامعة بنها والتى تم اختيارهم عشوائياً وتقسيمهم الى مجموعتين: المجموعة الضابطة وبلغ عددها أربعة وثلاثون طالبا والمجموعة التجريبية وبلغ قوامها ستة وثلاثون طالبا. أشتملت أدوات الدراسة على اختبار لمهارات القراءة الناقدة للغة الإنجليزية كلغة أجنبية ومقياس للتمكين الأكاديمي. تم أختبار المجموعتين فى مهارات القراءة الناقدة والتمكين الأكاديمي قبل المعالجة وبعد الأنتهاء من تطبيقها. تم تدريب المجموعة التجريبية على مدار أربعة عشر جلسة من البرنامج لتنمية مهارات القراءة الناقدة والتمكين الأكاديمي ؛ بينما تلقى طلاب المجموعة الضابطة التدريس بالطريقة العادية . أشارت نتائج الدراسة الى وجود فروق ذات دلالة احصائية عند مستوى دلالة 0.01 بين متوسطى درجات المجموعتين فى التطبيق البعدى لأختبار القراءة الناقدة ومقياس التمكين الأكاديمي وذلك لصالح طلاب المجموعة التجريبية. وتؤكد هذه النتائج على مدى فاعلية برنامج التعلم المدمج القائم على التلمذة المعرفية لتنمية مهارات القراءة الناقدة والتمكين الأكاديمي لدى معلمى ما قبل الخدمة بالفرقة الثانية شعبة اللغة الإنجليزية.

الكلمات المفتاحية: التعلم المدمج – التلمذة المعرفية – برنامج تعلم مدمج قائم على التلمذة المعرفية -مهارات القراءة الناقدة فى اللغة الإنجليزية- التمكين الأكاديمي- معلمى اللغة الإنجليزية قبل الخدمة

Introduction

Mastery of EFL reading involves developing its highly correlated main component skills: decoding, vocabulary, fluency and comprehension. Real reading instruction explicitly and systematically targets each component skill that requisites to be developed. At the university level EFL reading instruction is divided into literal, interpretative and critical reading comprehension exercising; and these skills are occurring collaboratively and successively. Critical reading skills become more stimulating as well as fundamental for ESL and EFL

learners who have to practice a reading text within the conventional classroom.

Critical reading involves the reader's active involvement to think deeply about the text in reconstructing its meaning by involving interpretation, making implication, inquiry, giving conclusion, and evaluation. In a critical reading process, reading is perceived as a meaning construction procedure which entails higher order thinking abilities about a text. In a critical reading, the reader has right to judge and evaluate the content of the texts (Par, 2018).Critical reading necessitates the readers to go beyond the literal comprehension of the reading texts. The readers need to give judgment of the text's authenticity. They shouldn't agree directly with the writer's opinions .As critical reading means to read the passage analytically to get its main values. (Douglas, 2000). In the same vein, Walz (2001) asserted that , the critical readers should have a conversation with the writer to be judgmental readers.

Freebody and Luke, (1990) defined critical reading as a dynamic process of constructing meaning from the texts. Moreover, (Schwegler, 2004) clarified that it 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. Therefore, Critical reading is conceived of as active reading. Pardede (2011: 3) stated that it is the process of comprehending, questioning, and evaluating a text. It is carried out consciously to assess the accuracy and validity of a writer's ideas and detect the misleading opinion, and illogical conclusions of the text. Zhang & Xie (2012) regarded it as a reflective process that involves the ability of inferring and self-monitoring.

The Writing Center (WC), belonging to Cleveland State University (2016), mentioned that critical reader applies certain processes, models, questions, and theories that result in enhanced clarity and comprehension. Thus, Pirozzi (2003) mentioned that they should deduce the author's implications and draw conclusions through logical analysis. Therefore, the act of reading is considered a meaning construction practice which encompasses higher order thinking abilities to judge the text' content (Par,2018).

In both academic and everyday lives critical reading skills are very essential. These skills enable individuals to detect bias in any oral or

written discourse. Therefore, English education should contribute to the development of students' critical reading skills (Nazara,2019). Moreover, its importance lies in the increasing numbers of reading texts in the information and communication technology era. So, readers need to develop their ability to select the reliable information even within the printed texts or social media ones (Sultan et al., 2017).

Critical reading affects positively on students' critical thinking skills. These skills are essential as an important educational goal in many societies (Wilson 2016 & Larsson 2017). Knott (2012) agreed that a critical reader is supposed to be reflective, interactive, open-minded, and knowledgeable. However, Wheeler (2017) added that a critical reader is expected to be different and creative concerning his/her: (a) goals, (b) types of discipline, (c) types of mental activity, (d) results, and (d) types of understanding. This can be done by providing new and organized ideas based on reasons.

Developing students' critical reading always has a prominent place among the researchers and instructors. Numerous studies have been conducted to examine students' critical reading in English language teaching (Sadeq., 2014; Rodríguez, 2015; Ahmed,2016; Alqatanani, 2017; Par , 2018 ; Nazara, 2019 ; and Khonamri, Azizi, & Kralik (2020).

Exposing EFL students to certain appropriate strategies, activities, or text types, such as using Blended learning (Sadeq., 2014), Deep culture approach (Rodríguez, 2015), Web Quest (Ahmed,2016), using multiple intelligence (Alqatanani, 2017), using cognitive styles (Par, 2018), using short stories (Nazara, 2019), and using Interactive E-based Flipped Approach (Khonamri, Azizi, & Kralik (2020), develop their critical reading skills.

Sadeq's study, (2014) aimed to examine the influence of a program that is based on blended learning on developing EFL critical reading among secondary school students. A critical reading test was designed to both groups prior to the experiment and the data obtained the program was effective in developing EFL critical reading skills. In another study conducted by Rodríguez, (2015) used multiculturalism approach with deep culture topics in short stories to develop EFL pre-service teachers critical thinking, reading and intercultural awareness. The study indicates that deep culture should be a relevant teaching content in the professional preparation of those teachers.

A Web Quest program was used in Ahmed's study (2016) to improve some EFL critical reading and writing skills of experimental secondary school students. The experimental group's critical reading and writing were developed than the control group. Alqatanani (2017) used a multiple intelligence based program to develop Jordan students' EFL critical reading. He provided them with a suitable resources and recommended to use the treatment in another EFL language skills.

In a recent study, Par (2018) explored whether the difference in cognitive styles has an effect on students' EFL critical reading skills. He used a group embedded figure test (GEFT) to classify participants into groups. The results showed that students' cognitive learning styles affects on their critical reading skills. Nazara (2019) investigated the effect of short stories on critical reading. Results indicated that, students who used short stories their reading skills were developed. Khonamri, Azizi, & Kralik (2020) examined the effect of interactive e-based flipped approach on fostering students' critical reading and problem-solving skills. A quasi-experimental pre-test-post-test design was used with 34 students. Findings indicated the effect of e-based flipped approach in developing EFL critical reading skills.

The implication of emotional dimensions in language instruction and their positive or negative contribution to accomplishment have been studied by researchers in pursuit of reaching stable conclusions on dynamics influencing learning regardless of the elusive nature of psychological aspects. (Doğan,2016). Academic enablers are student attitudes and behaviors that facilitate their participation in the academic instruction (DiPerna & Elliott, 2000:294). Academic enabling behaviors entail more preparation, goal-setting, and monitoring of development. Self-management skills become essential to break down enormous responsibilities, manage time for long-term duties, and complete homework on a systematic base. Furthermore, from a logistical perspective, an intervention that travels with the apprentice may be more achievable for implementation than a teacher-mediated intervention when many teachers are involved (Briesch, 2015).

DiPerna, Volpe, and Elliott (2002, 2005) tested a comprehensive academic enablers model with numerous samples of elementary level Students. They recommended using this model as to facilitate students' learning and to assess any learning difficulties. DiPerna (2006) in his

model focused on using academic enables to enhance students' progress in academic skills, attitudes and behaviors.

Academic enablers comprise interpersonal skills, engagement behaviors, motivation, and study skills. The first component of academic enablers, social skills or interpersonal skill, are learned behaviors that enable students to cooperate with their peers positively such as asking for assistance, starting conversation and giving compliment (Caprara, Barbaranelli, Pastorelli, Bandura, & Zimbardo, 2000, Gresham and Elliott ,1984). The second component of academic enablers is engagement. It is the student' behaviors that indicate his/her active involvement within classroom. It is evident in his/ her writing, reading or even answering questions and providing answers to others (Greenwood, Horton, and Utley (2002). Moreover, students who have academic engagement demonstrate advanced ranks of academic performance (Feldman and Matjasko, 2005).

Motivation is the third component of academic enablers. It is the process that entails with a goal-directed activity (Schunk, Pintrich, and Meece, 2008). Some scholars connect motivation to intrinsic motivation, doing a job for its particular sake (Schunk, Meece, & Pintrich, 2012). Intrinsic motivation reflects an individual's will to involve in an activity for its own sake while extrinsic motivation refers to readiness to participate in an activity because the activity is a way to an end (Pintrich & Schunk, 2002).

The fourth and last component of academic enablers is study skills. Fortunately, study skills are teachable and should be taught to all students (Gettinger and Seibert, 2002). Study skills are number of cognitive skills and processes that help students in obtaining original data in a proficient manner. Apprentices with high study skills produce positive results across academic areas. These skills comprise organizing data and applying it in a new content through certain procedures of practice and training (DiPerna, 2006). When instructors teach study skills, he must employ plain process through a model lesson plan. By doing this, he can adopt a good strategy to assist students assign the skills to further situations (Shinn & Walker, 2010).

There are various strategies that can be implemented, if a student's academic enablers are in need of intervention. These strategies comprise modeling, coaching, behavioral rehearsal, and reinforcement. Two of these strategies (modeling and coaching) are suitable for an

apprentice who has not demonstrated the phases involved to reveal the enabler. The last two strategies (behavioral rehearsal and reinforcement) are proper for a learner who has demonstrated the target enabler but not proficient yet. Thus, next detecting a target enabler for involvement, the next step in developing a specific interference strategy is to determine if the student has failed to determine the target skill and requires to learn the definite skill, or demonstrated the target skill but needs to develop its practice (DiPerna, 2008).

Thus, as seen in the previous literature, academic enablers (social skills, motivation, study skills, and engagement) are skills that backing education, academic accomplishment, develop peer relationships, and reduce disruptive behaviors (DiPerna & Elliott, 1999; 2002). Implementation integrity is continually a concern in school situations; though, this concern converts intensified when consistency of implementation must be assured through numerous individuals and situations, such as at the middle school level.

The progress of Information technology skills has become a real life need required by institutional, educational and work environments. The prerequisite of technology has already been utilized by present-day instructors who attempt to make the process of learning more proficient and successful for the contemporary students. The implementation of new technologies for pedagogical purposes required the occurrence of new educational approach that includes the use of technological devices as the instructive tools. Such an approach is often referred to blended learning (Szymańska, & Kaczmarek ,2011).

The term "blended learning" was first presented by Paul Myers in 2000. Blended learning is a face-to-face learning (traditional) method supplemented by online learning, it is often defined as the mixture of face-to-face and online learning. Additionally, the command of blended and face-to-face involvements can afford continuous educational discourse. (Garrison, 2011). A blended learning setting is a flexible approach, which correlate traditional face-to-face instruction with computer-mediated or online education (Oliver& Stallings, 2014). Tripathi (2016) concluded that online resources cannot totally substitute for an instructor in a classroom. However, if they are integrated in an efficient way into the regular method in education, they can have a progressive influence on the academic achievement of scholars.

Blended learning (BL) as one of constructivism approaches, learning ensues through student-centered, project-based and authentic learning activities (Gagné, 2005; Nguyen, 2011). It deals with adopting new environments that work better for educators and apprentices and suggests alteration to an online environment for a part of the student's day to give a student more control over the time, pace, path, and place of learning (Bailey, Ellis, Schneider, & Ark, 2013). Through BL students hypothesis their information through their engagement with the framework of education and gain a personalized learning familiarity. As a result, learners can accomplish the class project outside the usual class period by using online educational platforms leading to a blended learning design (Tomlinson & Whittaker, 2013).

The use of blended learning not only assimilates learning models, learning styles, but also a learning media. The benefits of adopting it in education are creating time and place flexibility to obtain learning materials (Jeffrey, Milne,Suddaby, Higgins,2014). Picciano et al (2013) clarified that blended learning involved students prepare a collaborative project, uphold systematic communication through email, wikis, and group discussion boards, meet face-to-face to present and discussed the online course resources, and at the conclusion of the course, there is group project performance. Sun, (2018) asserted that in this learning mode, instructors' function as the leading teaching guide has not been weakened; in contrast, during the blended learning class, teachers can guide, stimulate, and monitor the students; simultaneously, students' role as the subject of learning is still enriched. Additionally, through the online and offline learning, students' initiative, inspiration and creativity can be further reinforced.

By applying the alternative techniques between face- to face instruction and online resources, educators can construct communicative learning situation. Instructors can take advantages of class time towards developing students' questioning and evaluating skills by having individuals discover the basic information of the lesson before the real presentation (McCue, 2014). Teachers can lead multi-media technologies into both online and class-based instruction to inspire students' curiosity and enrich their learning experience (Caravias, 2015).

According to Horn & Staker (2015), blended-learning consists of four models of instruction: rotation model, flex model, self-blend model and enriched visual model. In rotation model learners rotate between online learning and fixed schedule according to the instructors' decision. In flex model, students can work on adopted schedule one of which is online. There are also modifications of their schedules according to their prerequisites. In self-blend model, students can enhance their educational knowledge by choosing certain online courses to supplement their traditional in-school course. The last one is enriched visual model, in which learners mainly learn online and organize their time schedule between school campus and off-site situations (Beaver, Hallar & Westmaas, 2014).

In labeling the blended learning elements, Carman (2005) has pointed out that the blended learning process contains five basic elements: (1) Live Events: Synchronous, instructor-led learning events where all students share at the same time; (2) Online Content: Learning practices that the apprentice accomplishes at his specific speed and time; (3) Collaboration: Apprentices connect and create with others E-mail, threaded discussions, and wikis; (4) Assessment: An extent of progress of learners' knowledge. Pre assessments to define prior knowledge, and post- assessments to assess learning outcomes; (5) Support Materials: These comprise reference supplies both physical and virtual that enrich learning maintenance. They include: printable references, job assistances and particular digital supporter.

There were many studies dealt with how blended learning approach can support English language students to improve their learning skills in general and EFL reading skills in particular. Among of theses ones Alshumaimeri (2012) who focused on developing EFL reading comprehension performance of Saudi male students. Yang (2012) reported that the blended learning was effective in enhancing

students' reading ability and assisted social interaction, as scholars were given more opportunities to deliberate their reading difficulties during learners' negotiations and gain different comments from their classmates. In Schechter, Macaroon, Kazakoff & Brooke (2015) study, investigated the potential benefits of a blended-learning approach on the reading skills. Results showed significantly greater pretest/posttest gains on a standardized reading assessment for the experimental group students in reading comprehension performance and their attitudes, compared to the control group students.

Additionally, Asnawi (2017) focused on the application of blended learning edmodo group and its effect on reading activity. The results provided a entertaining learning manner, generating a close relationship between lecturers and students, assist communication, share knowledge, as a result learning can be done anytime through various exercises and quizzes. Abuzeid (2018) investigated the effect of blended learning that based on metacognition in developing students' critical reading and writing skills. Findings revealed that the students participating in the treatment were significantly improved in terms of their critical reading skills, interest and motivation and critical writing.

Radia's study (2019) asserted that participants expressed a positive attitude towards blended learning as it developed their reading skills and motivation. More prominently, the new learning situation helps them to keep away from the limitations of traditional classroom and to be accountable for their own learning thanks to the online easy admission to material. Recently in (2020), Rombot, Boeriswati and Suparman asserted the improvement of elementary school students' reading comprehension skills through blended learning. Using a purposive sampling technique, 20 foreign students were involved as a study sample. During the learning process, students looked excited in learning Indonesian. Therefore, blended learning can be used an alternative for resolving the problem of limited time and the extent of constituents that must be learned, thus giving a positive influence on the reading comprehension skills.

In the theory of cognitive development, Vygotsky (1978) asserted that ideal instruction takes place once instructors scaffold apprentices in gaining original conceptions or knowledge. Reading skills are improved through the tutorial room collaboration of apprentices with their instructors and classmates, including both small group work and major

course debate. This implies that when instructors offer sustenance and modeling' learning rises within the apprentices' zone of proximal development. The term cognitive apprenticeship means the emphasis of the instruction through guided experience on cognitive and metacognitive rather than physical skills and processes (Collins, Brown & Newman, 1989: 457).

Duke and Pearson (2002) described a cognitive apprenticeship model in which there is a gradual release of responsibility. Through it, instructors design evident reading strategies by clear illustration and guided practice which facilitates students' independent usage of these strategies. It is originated from the situated cognitive theory, which asserted that knowledge skills entail a real situation to be learnt, and the learnt skills also should be used in actual situations. In an ideal learning environment, the cognitive apprenticeship instructional methods includes: modeling, coaching, scaffolding and fading, articulation, reflection, exploration (Wang, 2019).

Modeling strategy in cognitive apprenticeship is focused on teacher, so that students can clearly comprehend whatever they are learning and demonstrate to the apprentice how to perform an assignment, with the probability that the apprentice can imitate the method (Tokuhama-Espinosa, 2011).This is often completed at the beginning of the instructional relationship so as to the student can preview what they would be able to accomplish upon completion of instruction. Coaching as the second strategy within cognitive apprenticeship is to observe the students during process's actions, and provide those hints, scaffolds, feedbacks, demonstration on new objectives. It consists of two phases: scaffolding and fading. Collins et al. (1989) described scaffolding as being "the support used to help the apprentice to estimate the completing of the total combination of skills. However, fading is the ongoing elimination of the scaffolding sustains until the students can do their tasks without observation or support. So that, Scaffolding is to afford assistance to the students when operating. After the scaffold has been constructed, choose the right time to fade out so students became independent (Kolikant, Gatchell, Hirsch and Linsenmeier , 2006)

Articulation as another instructional strategy in the cognitive apprenticeship consists of the practice of having students express their thinking as they accomplish a certain mission. This instructional method

encompasses the instructor encouraging apprentices to express what they are doing to provide evidence to the teacher through their application of content knowledge to the task that they are carrying out. Instructors can train students to link their research's fragments through debates, reports on progress rate and real-time Internet meetings. Reflection means to let students make a comparison of their results to experts and other students. It provides students with a chance to reflect on their presentation and to parallel it with their classmates. During this phase of instruction, the learners are self-assessing their presentation and categorizing points of merits and demerits (Collins Brown & Holum., 1991). Exploration is the sixth instructional strategy that is used within the cognitive apprenticeship model after the student has acquired some basic knowledge. This is where the instructor inspires the apprentices to establish their challenging objectives and search for various matters independently (Collins, Brown & Newman., 1989).

The practice of cognitive apprenticeship instruction indicates that the learning relationship between the apprentice and the educator will remain extended as paralleled to further traditional relationships in today's classroom situation. It also implies that the instructor is a proficient in student'content knowledge (Carver, 1995). The application of a cognitive apprenticeship model supports apprentices to relate their information to relevant situations. The instructor step by step declines the maintenance provided to apprentices through scaffolding and coaching methods and sustains their independence through investigation. In the process of learning, apprentices must reexamine what they achieved and negotiate their thoughts with instructors and other students. They debate, reveal, and exchange their work with others' presentation through articulation and reflection methods as a final stage (Brill & Kim, 2001).

The framework for a cognitive apprenticeship learning environment must take into account four dimensions: content, method, sequencing, and sociology. Within the dimension of content there are four types of knowledge: domain knowledge, heuristic strategies, control strategies, and learning strategies. The second dimension of the model is the method that means the instructional methods. The sequencing of instruction has an increasing variety of complexity, to local skills. The density of tasks must be obtained to apprentices increasingly. The instructor will increase the level of effort till the apprentice become proficient. The sociological dimension within the cognitive

apprenticeship model emphases on supplying apprentices with an chance to involve in situated learning where they can achieve faithful responsibilities within an appropriate learning atmosphere (Collins, Hawkins & Carver ,1991) .

However, Brill and Kim (2001) asserted that there are some difficulties in employing the cognitive apprenticeship approach that instructors must take into account in its application in the classroom. It necessitates teachers to repeatedly attend to students' problems and complications. If expert modeling overwhelms the students, there may be great effort in appreciative the technique and production of a mental model of the practice. Apprentices may be apprehensive, unsatisfied, and afraid to discover responsibilities individually. Successful application of cognitive apprenticeship requires realistic assessment of accessible resources. When they are working in a group, they must frequently deliberate and reflect on their endeavors and upcoming ideas. Moreover, it requires extra time on task. The time is necessary for students to discover various capacities to generate their own products.

Saadati , Ahmad, Mohd and Abu Bakar (2015) conducted a study to apply an internet-based Cognitive Apprenticeship Model (*i*-CAM) in three phases and evaluated its effectiveness for improving statistics problem-solving performance among postgraduate students. The results showed that, when compared to the conventional mathematics learning model, the *i*-CAM could significantly promote students' problem-solving performance at the end of each phase.

In an action research, Rodríguez-Bonces and Ortiz, (2016) aimed to identify how the Cognitive Apprenticeship enhances online collaborative learning by using a chat tool. Results revealed that modeling, coaching, scaffolding, exploration, and reflection can be conducted within chat room, increasing a sense of teamwork. Apprentices moved from guided instruction (modeling) to more independent learning (articulation), assigning the responsibilities of professionals through synchronous interactions when using a chat room. In the same vein, Tilahun, (2017) used the cognitive instructional scaffolding to foster students' reading comprehension in EFL classrooms, and the cognitive levels of questioning strategies EFL teachers use according to Blooms' Revised Taxonomy. The results of the study indicated, the responsibilities of EFL teachers' in organizing groups ,sharing ideas, making students to imagine the text, inferring the

implied meaning, deducing the author's intentions and leading apprentices to critical judgments that occur fewer in EFL classrooms.

In a recent study Wang, (2019) used the cognitive apprenticeship approach and the collaborative learning in an Apps design class in the university. The study emphases the exploration of students' attitudes toward the course design. The findings indicated that students' motivation increased through the proposed approach. In another study conducted by Eze, Obidile, & Okotubu (2020), investigated the effect of cognitive apprenticeship instructional method on students' academic achievement and retention in auto mechanics technology in technical colleges in Delta State. Findings revealed that students taught auto mechanics technology using cognitive apprenticeship instructional method attained and engaged better than those educated through demonstration method.

In conclusion, it can be concluded that using the blended learning program that based on cognitive apprenticeship can be used to develop EFL critical reading skills and academic enablers' dimensions.

2. Context of the Problem

Out of the study researcher's experience at the university level, the researcher observed that the majority second year students enrolled in the English section encounter problems in EFL critical reading skills. They don't have the ability to make inferences and form conclusions, which are the sub-skills of critical reading. Lacking the ability to read critically led to numerous further problems in their academic life since, at the university level, students are expected to read texts and demonstrate their critical reading ideas in their assignments and through their assessment systems. Consequently, the students would become discouraged by the lack of progress, resulting in a constantly reduced motivation to their academic enablers dimensions as well.

Concerning the Egyptian context, maximum present Egyptian English language programs do not offer students with chances to practice EFL critical reading skills in the communicative setting. Previous scholars demonstrated that EFL students face some critical reading problems. Those problems might delay their ability to express themselves independently, as they are not attentive in the topic that the teacher asks them to read and analyze or summarize. Moreover, the absence of academic enablers dimensions is a real problem that affects

their motivation, interpersonal skills, engagement and their study skills (Ayed,2011; Elkhalyfa,2020; Elsakka,2011; Ibrahim,2018; Ismail,2015 and Khallaf,2013,Helwa,2019)

To document the problem of the research, a pilot study was conducted by the researcher to detect the critical reading skills among second year students enrolled in the English language section. The participants were 30 students of the second year enrolled in the English language section, Faculty of Education, Benha University. The pilot study consisted of an EFL critical reading test and EFL academic enablers' scale. The findings of the pilot study showed that there is a low level of second year students' critical reading skills, as they can't find the unstated details in the text; or distinguish between fact and opinion within the text; and can't assume the author's main purpose, or infer in which course the text assigned. Moreover, they have a low level of and academic enablers dimensions (interpersonal skills, motivation, engagement and study skills), so the present study researcher proposes a blended program based on cognitive apprenticeship strategies (Modeling, coaching, scaffolding ,articulation, reflection and exploration) in addition to some blend of asynchronous and synchronous tools are commonly used (Facebook, WhatsApp) through the program to develop second year students' critical reading skills and academic enablers .

3. Statement of the problem

In spite of the importance of critical reading skills and academic enablers, second year students enrolled in English language section, Faculty of Education, Benha University lack these skills , which prevent them to understand the text. That is why the present study attempts to help them develop their EFL critical reading skills and academic enablers through using the blended program that based on the cognitive apprenticeship strategies.

4. Questions of the Study

In an endeavor to overcome this problem, the present research tried to respond the next questions:

1. What is the effectiveness of using blended learning program based on cognitive apprenticeship for developing the second year student ' EFL critical reading skills?

2. What is the effectiveness of using blended learning program based on cognitive apprenticeship for developing the second year student ' EFL academic enablers?

5. Hypotheses of the Study:

In the light of the review of literature and related studies, the following four hypotheses are formulated:

1- There is a statistically significant difference between the mean score of the experimental group and the control group in EFL overall critical reading skills and sub-skills on the post administration of EFL critical reading skills test in favor of the experimental group.

2- There is a statistically significant difference between the mean score of the experimental group in EFL critical reading sub-skills and overall skills on the pre and post administration of EFL critical reading skills test in favor of post administration.

3- There is a statistically significant difference between the mean score of the control group and experimental group students in academic enablers' dimensions and the total score of the scale on the post administration of academic enablers scale in favor of the experimental group.

4- There is a statistically significant difference between the mean score of the experimental group students in academic enablers dimensions and the total score of the scale on the pre and post administration of academic enablers scale in favor of the post administration

5- Method of the study

This section of the research sheds the light on the research methodology that has been followed in examining the effectiveness of using blended program based on cognitive apprenticeship in developing EFL critical reading skills and academic enablers among second year English language section, Faculty of Education, Benha university. The methodology comprises the following points:

Participants of the study

1) Research design
2) Instruments and Materials of the study

1) Participants of the study

The participants of the present study consisted of 70 second year English language section students at Faculty of Education, Benha University during the second semester of the academic year 2019-2020. They were distributed into two groups; an experimental group (N=36) and a control group (N= 34). The experimental group was taught through using the blended program that based on cognitive apprenticeship, while the control group was taught by the traditional method.

To ensure that both groups were the same in the EFL critical reading skills, EFL critical reading skills test was applied to the control group and the experimental group before implementing the treatment. Mean, standard deviation and "t" value of the two groups were computed.

Table 1.
"T" test between the control group and the experimental group in the pre-test of the overall EFL critical reading skills

Skill	Groups	N.	Mean	S.D.	T-Value	D.F	Sig.
EFL critical reading skills	Control group	34	17.588	6.257	0.261	68	N.S.
	Experimental group	36	17.888	2.826			

Table (1) indicates that there is no significant difference between the mean scores of the control and experimental groups on the overall EFL critical reading skills pre-test, where "t" value is (0.261), which is not significant at (0.01) level of significance. This means that the two groups are equivalent in their EFL critical reading skills.

Also, to make sure that both groups were equivalent in EFL academic enablers, EFL academic enablers' scale was administered to the two groups before implementing the treatment. Mean, standard deviation and "t" value of the two groups were assessed.

Table (2).
"T" test between the control group and the experimental group in the pre-administration of the EFL academic enablers' scale

Item	Groups	N.	Mean	S.D.	T-Value	D.F	Sig.
EFL Academic Enablers	Control group	34	41.852	2.595	0.337	68	N. S.
	Experimental group	36	41.611	3.340			

Table (2) shows that there is no significant difference between the mean scores of the control and experimental groups on the EFL academic enablers pre- administration, where "t" value is (0.337), which is not significant at (0.01) level of significance. This means that the two groups are equivalent in their EFL academic enablers.

2) Design of the study

The present study is mainly quantitative and qualitative. Its design is quasi-experimental which is based on manipulating the independent variable and measuring its effectiveness on the dependent variable (Torchin, 2003:29).A pre- post control group design was used. The two groups were tested before and after the treatment. So, the present study researcher administered A blended program based on cognitive apprenticeship in developing EFL critical reading skills and academic enablers among second year English language section students at Faculty of Education, Benha University.

3) Instruments of the study

This study aimed at using a blended program based on cognitive apprenticeship for developing EFL critical reading skills and academic enablers among second year English language section students at Faculty of Education, Benha University. The following instruments and materials were developed by the present study researcher to fulfill the purpose of the study:

A. An EFL pre-post critical reading skills test.
B. An EFL academic enablers scale.
C. The blended learning cognitive apprenticeship-based program

A- EFL Critical Reading Skills Test :(pre-post test)

researcher. The test consists of two reading passages; each one followed by ten MCQ questions. The test consists of (20) questions , that assessed students' ability in specific EFL critical reading skills such as (find the unstated details in the text; distinguish between fact and opinion within the text; assume the author's main purpose , infer in which course the text assigned; identify cause and effect relationship within the text; Evaluate the credibility of the claims within the text; make relevant inferences about the text; draw conclusions from the author's words (point of view); infer the tone of the author; and deduce the preceding & following information within a text.(**See Appendix. A)**

Piloting and scoring the EFL Critical Reading Skills Test:

The EFL critical reading skills test was applied to a pilot sample of 30 second year English language section students at Faculty of Education, Benha University to investigate: (1) simplicity of instructions; (2) appropriateness of the language level to the sample; (3) clarity of test items and to make sure that the questions were understood by students and to assign the time required for responding to the test sections. No problems were reported with clarity and comprehensibility. Concerning time allocation, the researcher calculated the mean time spent by the first and the last learner to complete the test. The section appropriate time for each section of the test was about 30 minutes for each one (one hour) as total. The total score of the test is (20). The questions of the test are multiple choice questions (MCQ), thus the researcher gave (2) mark for the right answer and (0) for the wrong one.

Validity of the EFL Critical Reading Skills Test:

To assess the **face validity**, the EFL critical reading skills test was submitted to 6 jury members in TEFL (**Appendix B**). They were asked to express their opinions concerning the simplicity, the difficulty level and length of the test, and how far every item measures the skill intended to measure. The jury affiliates reported the relevance of the test items to the skills to be measured. Appropriateness of the test to students' academic level was reported. Simplicity of the test instructions and questions and representation of the targeted skills were also recounted.

To ensure the content validity of the test, it was designed in the light of an organized and precise review of literature and previous related

studies. This precise evaluation firmed the general form of the test and indicated its content validity.

- Reliability of the EFL Critical Reading Skills Test:

For approximating the reliability of The EFL critical reading skills test, the researcher used the test-retest method. The test was administered to a random sample of second year English language section students at Faculty of Education, Benha University, (n=30). The test was administered again to the same group after two weeks. The Pearson correlation coefficient between the two administrations was 0.83 which is statistically significant at 0.01.

B - EFL Academic Enablers' Scale:

The EFL academic enablers scale was designed by the present study researcher to measure EFL academic enablers among second year students enrolled in English section at Faculty of Education, Benha University, Egypt (see appendix C). It was used as a pre-posttest (applied before and after implementing the program). The scale consists of (20) statements with three options for each item. The options were: Never, Sometimes and Almost always. Score allotted to the responses were 1, 2, and 3. This scale required students to rate their EFL academic enablers. There is no right answer for any statement. The best answer is what they see. Items are statements to which students' responses are (1= Never, 2 = sometimes, 3 = almost always).

The 20 items in the scale were divided into subscales that investigated student's academic enables dimensions. Five items focused on ability to show different interpersonal skills, five focused on their motivation, five focused on their engagement and the last five items focused on their study skills. The EFL academic enablers scale was administered to all 70 participants before and after the treatment in order to track changes in students' academic enablers in English.

The Validity of the EFL Academic Enablers Scale:

To estimate the academic enablers scale validity, the clarity of items and the suitability of the scale items to the students' level and background, the scale was submitted to six Jury members. Some changes to some items that not related to students have been changed. The jury affiliates emphasized that the scale items were valid.

The Reliability of The EFL Academic Enablers' Scale:

The scale was piloted on a random sample of second year, English language section, Faculty of Education, Benha University (n= 30) during the first semester of the academic year (2019-2020). Then, the scale was administered again to the same group after two weeks. The Pearson correlation coefficient between the two administrations was 0.86 which is statistically significant at 0.01. This entails that the scale is reliable**.**

C- The suggested blended Cognitive Apprenticeship-based program

The **blended Cognitive Apprenticeship -based program** was developed to develop EFL critical reading skills and academic enablers of second year students enrolled in English language section at Benha Faculty of Education and providing them with some theoretical and practical activities about EFL creative critical reading skills and dimensions of EFL academic enablers (interpersonal skills, motivation, engagement and study skills) and how to practice them to the mastery level of acquiring them **(See Appendix D)**

a- Objectives of the program

The **blended Cognitive Apprenticeship-based program** was developed to enhance EFL critical reading skills and academic enablers of second year students joined English language section, Faculty of Education at Benha University.

The researcher used variety of activities, assignments and tasks through the sessions to enable the participants complete the program objectives. By the end of the program, students will be able to:

- Identify the significance of the **blended learning Cognitive Apprenticeship-based program** in common and in language learning in particular.
- Attain the prominence of EFL critical reading skills and academic enablers to them as English language learners.
- Improve the critical reading sub-skills
- Enhance students' academic enablers' dimensions (interpersonal skills, motivation, engagement and study skills) by actively promoting students' independence and interest through the program materials and practices.

- Create an inspiring and enjoyable atmosphere by breaking the monotony of classroom procedures through a blended cognitive apprenticeship program.

b- Content of the Program

The program included EFL critical reading skills and academic enablers activities and tasks that were suitable for second year students, English section, Faculty of Education, at Benha University and adopted from various resources such as related studies and books: (Collins, Brown, & Newman, 1989; Comber, & Nixon, 2011; DiPerna, 2006; Greenwood, Horton, & Utley, 2002; Nazara, 2019; Tilahun, 2017-Wang, 2019).

C- Description and Framework of the program

The program consisted of 14 sessions. The initial session was orientation sessions about blended learning tools used in the program and the strategies of cognitive apprenticeship, the sub-skills of EFL critical reading skills and academic enablers and the importance of this skill to the study sample. The followed sessions were instructional ones through which the EFL critical reading skills and academic enablers were practiced. Moreover, there were two sessions for revision. Each one of the revisions session was practiced and presented after the total practice of its skill, as a kind of formative assessment for the program**. (See Appendix D).**

Table 3.
The Blende Cognitive Apprenticeship -Based Program Framework

Session	Objectives
Pre-test session	***Pre-test of EFL critical reading test and academic enablers scale***
Session One **Goal Setting & Introduction**	**1-** Know what is meant by blended cognitive apprenticeship program and its strategies, goals, bases and why it is important for them**.** **2-** identify the importance of EFL critical reading skills
Session Two **Goals Setting& Introduction (2)**	**1-** Identify the critical reading sub-skills 2- Identify the importance of acquiring academic apprenticeship dimensions.
Session three	1- Practice the first EFL critical reading sub-skill (find the unstated details in the text) 2- Apply various tasks and activities related to academic enablers dimensions(interpersonal skills, take responsibility for actions and achieve some communication purposes)
Session Four	*1-* Distinguish between fact and opinion within the text *2-* Apply various tasks and activities related to academic enablers dimension (interpersonal skills such as how to work individually, in addition to the ability to work cooperatively with others.
Session Five	1- Assume the author's main purpose of the text. 2- Apply various tasks and activities related to academic enablers dimensions (concerning motivation such as doing challengeable assignments, learn about new things in alternative ways)
	1- Infer in which course the text assigned

Session	Objectives
Session Six	**2-** Apply various tasks and activities related to academic enablers dimensions (concerning motivation such as showing interest in practice new skills)
Session seven	1- Identify cause and effect relationship within the text. 2- Apply various tasks and activities related to academic enablers dimensions (concerning engagement such as taking part in the discussions with team-work
Session Eight	1- Evaluate the credibility of the claims within the text. 2- Apply various tasks and activities related to academic enablers dimensions (concerning engagement such as involved actively in varied tasks.
Session Nine	1- Make relevant inferences about the text 2- Apply various tasks and activities related to academic enablers' dimensions (concerning study skills such as applying time management and task management skills.
Session Ten	1- Draw conclusions from the author's words (point of view) 2- Apply various tasks and activities related to academic enablers dimensions (concerning study skills such as acquiring employability skills such as working on a team, problem-solving and organizational skills
Session Eleven	1- Infer the tone of the author within the text.
Session Twelve	1- Deduce the preceding & following information within a text
Session Thirteen	Revision session
Session Fourteen	Post- test of EFL Critical reading skills and academic enablers

D- Implementation of the Program:

The present study was conducted among second year students English section , Faculty of Education at Benha University during the second academic year of 2019–2020. The program goes through certain phases as follows:

- The study was carried out following organized phases with the tasks performed by the instructor and the students in each stage. At the first stage, the instructor tells students the purpose of sessions as part of assessment of their performance in EFL critical reading and academic enablers.

The blended cognitive apprenticeship- based program followed four main dimensions: content, method, sequencing, and sociology within a blended environment through synchronous and a synchronous tools (Facebook ,What Sapp).

- **The first step is designing the content** .Within the dimension of content there are four types of knowledge: domain knowledge, heuristic strategies, control strategies, and learning strategies. In the Domain knowledge, the instructor clarifies the skills in general and concepts and its main procedures. Moreover, she also illustrated the heuristic strategies that students can use to accomplish tasks related to EFL critical reading skills and academic enablers' dimensions. The researcher created face book group and whatsapp group and invited learners to connect.

- **The second phase:** Adapting the methods within the blended cognitive apprenticeship based program. Within the program, there are six instructional strategies that are employed: modeling, coaching, scaffolding, articulation, reflection, and exploration methods within the blended learning tools (WhatsApp and Facebook).

  - **A-Modeling strategy:** The researcher performs a task and shows them its steps so students can observe to imitate (face-to face phase).

  - **B- Coaching strategy:** The researcher observes and facilitates while students perform a task as

performed before by researcher (Face- to face phase).

- **C- Scaffolding strategy:** The researcher offers maintenance to aid the apprentice achieves assignment (face-to face phase).

- **D- Articulation strategy:** The researcher inspires apprentices to express their knowledge and thinking (even face – to face or online)

- **E- Reflection strategy :** The researcher enables students to parallel their project with that of others through their presentation(even face– to face or online)

- **F- Exploration strategy:** The researcher asks students to solve their own problems in conducting tasks and activities within the session to practice EFL reading skills and academic enablers (even face–to face or online).

- **The third phase**: The sequencing of instruction that included within the blended cognitive apprenticeship -based program increased complexity, variety and comprehensive to EFL critical reading skills. The density of tasks must be obtainable to apprentices increasingly. The study researcher continues to rise the level of efforts as the apprentice reveals expertise in performance (even online or offline).

- **The fourth phase**: sociological dimension within the blended cognitive apprenticeship -based program, the researcher provided apprentices with a chance to involve in situated learning anywhere they can acquire and work on faithful tasks within an appropriate learning atmosphere.

- **Evaluation phase:** The researcher and the students reflect on the whole skills trained and practiced through adopting Self-evaluation tools as an important technique for their total assessment **.**The participants through the program used demonstration, essay questions and open-ended question. Moreover, the researcher through the program adopted formal and informal evaluation may be done formative and summative one. Formative assessment has been done as the researcher testing student development, and leading student thinking by asking analytical questions through tasks and activities within the training sessions of the program. Where the summative one is conducting through administering the tests.

6- Findings of the study:

To measure the effectiveness of the blended cognitive apprenticeship- based program program, the participants were pre-tested and post-tested on the EFL critical reading skills. They were also tested on the EFL pre- and post- academic enablers' scale. For comparing the initial and the final mean scores of the participants in the overall EFL creative writing skills and academic enablers scale to find whether there was statistically significant difference between them in the control and experimental groups in the pre- and the post-assessment, the researcher used the independent sample T-test, as it is the suitable design of the study treatment. The findings of the study are given below with the hypotheses of the study as follows:

- The first hypothesis:

1-The first hypothesis states that "There is a statistically significant difference between the mean score of the experimental group and the control group in EFL overall critical reading skills and sub-skills on the post administration of EFL critical reading skills test in favor of the experimental group.

For testing this hypothesis, the independent sample T-test was used to compare the mean scores of the control group and experimental one in EFL critical reading skills and sub-skills on the post administration of EFL critical reading test. Table (4) presents the mean scores, standard deviation and level of the significance in the post assessment of the control group and the experimental group in EFL overall critical reading skills and its sub-skills

Table (4)
"t" test between the mean score of the experimental group and the control group in EFL overall critical reading skills and sub-skills

Skills	Assessment	N.	Mean	S.D.	T-Value	D.F	Sig.
1- find the unstated details in the text	**Control group**	**34**	**1.647**	**1.041**	**3.318**	**68**	**0.01**
	Experimental group	**36**	**2.444**	**0.969**			
2- distinguish between fact and opinion within the text	**Control group**	**34**	**2.117**	**0.997**	**4.190**	**68**	**0.01**
	Experimental group	**36**	**3.166**	**1.108**			
3- assume the author's main purpose of the	**Control group**	**34**	**1.647**	**0.917**	**5.163**	**68**	**0.01**
	Experimental group	**36**	**2.833**	**1.000**			
4- infer in which course this text assigned	**Control group**	**34**	**2.117**	0.844	**5.961**	**68**	**0.01**
	Experimental group	**36**	**3.388**	0.934			
5- identify cause and effect relationship within the text	**Control group**	**34**	**2.117**	**1.200**	**2.717**	**68**	**0.01**
	Experimental group	**36**	**3.833**	**1.000**			
6- Evaluate the credibility of the claims within the text.	**Control group**	**34**	**2.058**	**0.776**	**4.873**	**68**	**0.01**
	Experimental group	**36**	**3.111**	**1.007**			
7- make relevant inferences about the text	**Control group**	**34**	**2.000**	**0.852**	**4.452**	**68**	**0.01**
	Experimental group	**36**	**3.000**	**1.014**			
8-draw conclusions	**Control group**	**34**	**2.352**	**0.917**	**3.542**	**68**	**0.01**

from the author's words (point of view)	**Experimental group**	**36**	**3.166**	**1.000**			
9- infer the tone of the author	**Control group**	**34**	**2.647**	**1.069**	**1.693**	**68**	**0.01**
	Experimental group	**36**	**3.111**	**1.213**			
10-deduce the preceding & following information within a text	**Control group**	**34**	**2.176**	**0.757**	**9.588**	**68**	**0.01**
	Experimental group	**36**	**3.777**	**0.637**			
The Overall critical reading skills	**Control group**	**34**	**20.882**	**3.723**	**11.921**	**68**	**0.01**
	Experimental group	**36**	**30.833**	**3.255**			

This table shows that the experimental group outperformed the control group counterparts in EFL critical reading sub-skills and overall EFL critical reading skills where "t" value is (3.318) for finding the unstated details in the text; (4.190) for distinguishing between fact and opinion within the text ;(5.163) for assuming the author's main purpose of the text ; (5.961) for inferring in which course this text assigned; (2.717) for identifying cause and effect relationship within the text; (4.873) for evaluating the credibility of the claims within the text; (4.452) for making relevant inferences about the text; (3.542) for drawing conclusions from the author's words (point of view); (1.693) for inferring the tone of the author; (9.588) deduce the preceding & following information within a text. All of these are significant at the (0.01) level.

Moreover, table (4) shows that the mean scores of overall critical reading skills are **20.882** for the control group post-assessment and **30.833** for the experimental group post-assessment. The standard deviation (S.D.) is 3.723 for the control group and **3.255** for the experimental group post-assessment. As shown in the Table (4) the first hypothesis was accepted**.** ", where t= **11.921**, $p<0.01$ which is statistically significant at 0.01.

The second hypothesis:

The second hypothesis states that "There is a statistically significant difference between the mean score of the experimental group in EFL critical reading sub-skills and overall skills on the pre and post

administration of EFL critical reading skills test in favor of post administration.

For testing this hypothesis, the independent sample T-test was used to compare the mean scores of the participants in the experimental group in EFL critical reading sub-skills and overall skills on the pre and post administration of EFL critical reading skills. Table (5) presents the mean scores, standard deviation and level of the significance in the experimental group pre- and post-assessment of the EFL critical reading sub-skills and overall skills.

Table 5)

"t" test between the mean score of the experimental group in EFL critical reading sub-skills and overall skills on the pre and post administration

Skills	Assessment	N.	Mean	S.D.	T-Value	D.F	Sig.
1- find the unstated details in the text	Pre- administration	36	1.222	1.098	5.006	35	0.01
	Post- administration		2.444	0.969			
2- distinguish between fact and opinion within the text	Pre- administration	36	2.166	1.000	4.019	35	0.01
	Post- administration		3.166	1.108			
3- assume the author's main purpose of the	Pre- administration	36	1.444	1.629	4.359	35	0.01
	Post- administration		2.833	1.000			
4- infer in which course this text assigned	Pre- administration	36	2.111	1.259	4.888	35	0.01
	Post- administration		3.388	0.934			
5- identify cause and effect relationship within the text	Pre- administration	36	1.555	1.443	4.367	35	0.01
	Post- administration		2.833	1.000			
6- Evaluate the credibility of the claims within the text.	Pre- administration	36	1.777	1.416	4.602	35	0.01
	Post- administration		3.111	1.007			
7- make relevant inferences	Pre- administration	36	1.611	1.248	5.181	35	0.01
	Post- administration		3.000	1.014			

Skills	Assessment	N.	Mean	S.D.	T-Value	D.F	Sig.
about the text							
8-draw conclusions from the author's words (point of view)	Pre- administration	36	2.055	1.217	4.231	35	0.01
	Post- administration		3.166	1.000			
9- infer the tone of the author	Pre- administration	36	2.277	1.085	3.071	35	0.01
	Post- administration		3.111	1.213			
10-deduce the preceding & following information within a text	Pre- administration	36	1.944	1.119	8.537	35	0.01
	Post- administration		3.777	0.637			
The Overall critical reading skills	Pre- administration	36	18.166	3.000	17.167	35	0.01
	Post- administration		30.833	3.255			

This table shows that the experimental group was much better in the post administration than pre administration in EFL critical reading sub-skills EFL and overall EFL critical reading skills where "t" value is (5.006) for finding the unstated details in the text; (4.019) for distinguishing between fact and opinion within the text ;(4.359) for assuming the author's main purpose of the text ; (4.888) for inferring in which course this text assigned; (4.367) for identifying cause and effect relationship within the text; (4.602) for evaluating the credibility of the claims within the text; (5.181) for making relevant inferences about the text; (4.231) for drawing conclusions from the author's words (point of view); (3.071) for inferring the tone of the author; (8.537) deduce the preceding & following information within a text. All of these are significant at the (0.01) level.

Moreover, table (5) displayed that the experimental group outperformed in the post administration in the overall critical reading skills, as the mean scores of overall critical reading skills are **18.166** for the pre-assessment, where post-assessment was **30.833**. The standard deviation (S.D.) is 3.000 for the pre- assessment and **3.255** for the post-assessment of EFL critical reading skills. As shown in the Table (5) the

second hypothesis was accepted**.** ", where t= **17.167**, p<0.01 which is statistically significant at 0.01.

The third hypothesis:

3- The third hypothesis states that "There is a statistically significant difference between the mean score of the control group and experimental group students in academic enablers' dimensions and the total score of the scale on the post administration of academic enablers scale in favor of the experimental group.

For testing this hypothesis, the independent sample T-test was used to compare the mean scores of the control group and experimental one in EFL academic enablers' dimensions and the total score of the scale on the post administration of EFL academic enablers scale. Table (6) presents the mean scores, standard deviation and level of the significance in the post assessment of the control group and the experimental group in EFL academic enablers scale and its dimensions.

Table (6)

"t" test between the mean scores of the control and experimental group in the post application of academic enablers' dimensions and the total score of the scale

Dimensions of Academic Enablers	Assessment	N.	Mean	S.D.	T-Value	D.F	Sig.
Interpersonal skills	**Control group**	**34**	**9.529**	**1.973**	**5.825**	**68**	**0.01**
	Experimental group	**36**	**12.472**	**2.235**			
Motivation	**Control group**	**34**	**11.264**	**2.107**	**2.990**	**68**	**0.01**
	Experimental group	**36**	**12.750**	**2.047**			
Engagement	**Control group**	**34**	**11.117**	**1.225**	**5.915**	**68**	**0.01**
	Experimental group	**36**	**12.944**	**1.351**			
Study skills	**Control group**	**34**	**10.882**	**1.422**	**5.742**	**68**	**0.01**
	Experimental group	**36**	**11.805**	**1.064**			
Academic enablers (total score)	**Control group**	**34**	**42.0000**	**3.78994**			
	Experimental group	**36**	**49.9722**	**4.58872**	**7.900**	**68**	**0.01**

This table shows that the experimental group outperformed the control group counterparts in EFL academic enablers' dimensions and the total score of the scale, where "t" value is (5.825) for interpersonal skills; (2.990) for motivation ;(5.915) for engagement; (5.472) for study skills

Moreover, table (6) shows that the mean scores of total dimensions of academic enablers are **42.000** for the control group post-assessment and 49.972 for the experimental group post-assessment. The standard deviation (S.D.) is 3.78994 for the control group and **4.58872** for the experimental group post-assessment. As shown in the Table (6) the third hypothesis was accepted**.** ", where t= **7.900**, $p<0.01$ which is statistically significant at 0.01.

The fourth hypothesis:

The fourth hypothesis states that "There is a statistically significant difference between the mean score of the experimental group students in academic enablers' dimensions and the total score of the scale on the pre and post administration of academic enablers scale in favor of the post administration

For testing this hypothesis, the independent sample T-test was used to compare the mean scores of the participants in the experimental group in EFL academic enablers' dimensions and the total score of the scale on the pre and post administration of EFL academic enablers' scale. Table (7) presents the mean scores, standard deviation and level of the significance in the experimental group pre- and post-assessment of the EFL academic enablers' dimensions and the total score of the scale

Table (7)

" t" test between the mean scores of the experimental group in the pre and post administration of the EFL academic enablers' dimensions and the total score of the scale on the pre and post administration of academic enablers scale

Dimensions of Academic Enablers	Assessment	N.	Mean	S.D.	T-Value	D.F	Sig.
Interpersonal skills	**Pre-administration**	**36**	**9.638**	**1.290**	**6.585**	**35**	**0.01**
	Post–administration		**12.472**	**2.235**			
Motivation	**Pre-administration**	**36**	**11.305**	**1.737**	**3.272**	**35**	**0.01**
	Post–administration		**12.750**	**2.047**			
Engagement	**Pre-administration**	**36**	**10.805**	**1.237**	**7.003**	**35**	**0.01**
	Post-administration		**12.944**	**1.351**			
Study skills	**Pre-administration**	**36**	**9.861**	**1.376**	**6.706**	**35**	**0.01**
	Post–administration		**11.805**	**1.064**			
Academic enablers (total score)	**Pre-administration**	**36**	**41.611**	**3.340**	**8.839**	**35**	**0.01**
	Post – administration		**49.972**	**4.588**			

This table shows that the experimental group was much better in the post administration than pre administration of EFL academic enablers' dimensions and the total score of the scale where "t" value is (6.585) for interpersonal skills; (3.272) for motivation ;(7.003) for engagement; (6.706) for study skills.

Moreover, table (7) shows that the mean scores of total dimensions of academic enablers are **41.611** for the experimental group pre-assessment and 49.972 for the experimental group post-assessment. The standard deviation (S.D.) is 3.340 **for** the experimental group pre- assessment and **4.588** for the experimental group post-assessment. As shown in the Table (7) the fourth hypothesis was accepted**.** ", where t= **8.839,** $p<0.01$ which is statistically significant at 0.01.

7- Discussion and Interpretation of the Study Findings:

This part is concerned with the interpretation and discussion of the previously mentioned findings tackled in the previous section of the research. The findings are interpreted and discussed in the light of the study hypotheses.

Concerning the first and second hypotheses of the research, the findings revealed that there was a statistically significant difference between the control group and the experimental group mean scores in the post-assessment of EFL overall critical reading skill and its sub-skills in favor of the experimental group as T-value was 11.921 which is significant at 0.01. This means that the experimental group achieved more improvement in their EFL critical reading skills and its sub-skills. Also, in the pre- post administration of the EFL critical reading skills test for the experimental group, the participants showed a significant progress for the post- administration. These results confirmed the first and second hypotheses statistically.

The Blended learning program that based on Cognitive Apprenticeship has ascertained to be effective in developing EFL overall critical reading skills and its sub-skills for the experimental group. This advance can be ascribed to several causes. The researcher used authentic and coherent input to develop students' critical reading skills. She raised students' concern and interest about the object skill. The researcher adopted six strategies throughout the program sessions (modeling, coaching, scaffolding, articulation, reflection, and exploration. The sequencing of the treatment includes increasing complexity, variety and comprehensive to target skills. The density of tasks presented to participants increasingly. The researcher continually through the sessions training increased the level of difficulty as the participants revealed progress in performance. The researcher also, focused on sociological dimension within the blended cognitive apprenticeship – based program that provided participants the chance to involve in real situated learning as they learn and work on faithful tasks within an appropriate learning atmosphere.

Within the program sessions, the researcher and students read paragraphs silently. The researcher formulates a question based on the paragraph within the reading text, creates a summary, and deduces a expectation or interpretation, if any come to mind. At first, the researcher models this process and then turns the role of instructor over to the

students. When participants first start the process, the researcher trains them comprehensively on how to construct good questions and synopses, proposing stimulates and appraising their hard work. In this way, the researcher provides scaffolding for the students, permitting them to take on whatever percentage of the task they can accomplish. As the participants come to be more skilled, the researcher fades, assigning the role of monitor and providing special indications or comment.

Moreover, during the Blended Cognitive Apprenticeship-based program, the researcher noticed the progress participants accomplish in their EFL critical reading skills as students learn from the group accurate their mistakes and take part actively in regular accomplishments within the program session. During the program sessions, the researcher followed a cognitive apprenticeship strategies mixture to the blended learning tools. They can cooperate with each other through the discussion groups allow them to connect, have the discussion, and send pictures, recordings and more. The whatsapp group chatting helped participants to learn from each other. They can develop their reading skills by reading message via WhatsApp which makes them to encompass for reading text message and developing their understanding power. The students can share the resources which are related to their subjects or own course from one to one or various by using What Sapp that was consistent with (Muthaiyan & Kanchana, ,2016).

Throughout the study sessions, Whatsapp groups give students probabilities for communication in English, develop their, vocabulary, EFL critical reading sub-skills (such as, identifying the purpose of the reading text; clarify the difference between fact and opinions, infer the tone of the author and deduce the preceding and following information within the text). It provides them with chances for learning from each other and possesses English ongoing outside their classroom. They emphasized that whatsapp group chats stimulate them to learn from each other and provide them with space to practice English as a means of communication. They strongly agreed that chats and tasks they had during this work were of high impact in increasing their reading skills in general , that was consistent with Jafari and Chalak , 2016 ; Ahmed ,2019).

The findings may be attributed also to Facebook group supplemented with cognitive apprenticeship strategies through which, the students and researcher used to communicate, brainstorm, and also

giving opinions on reading materials and activities assigned. The using of Facebook allows participants and the researcher to start online discussions, post articles to develop a reading comprehension exercise, start online chats and many other activities. The researcher used "Booktag" to share books and ask the study participants to comment on them; and finally, "Flashcardlet" is an application used to create flash cards that students can study on Facebook to learn concepts and the skills of critical reading skills . Also, the researcher posted on Facebook group many useful EFL educational pages of several benefits. Moreover, through these pages participants get effective resources and receive valuable educational information for free that assisted developing their critical reading skills, that was consistent with , Pilgrim & Bledsoe, 2011. Each participant through the blended cognitive apprenticeship- based program was encouraged to read topics in real world English and he/she could invite friends to post their reflections and to share reading ideas, strategies, and new vocabulary. The researcher was also invited to read and give comments on each participant's reading topics. The research participants were encouraged to feel comfortable when posting topics. There were no limitations of number of topics, however, they were encouraged to associate their reading strategies learned from class to their reading in real world circumstances, so there was a major development in the participants EFL critical reading overall skills and its sub-skills that was consistent with Boonkit,2011).

Concerning the third and fourth hypotheses of the research, the findings showed that there was a statistically significant difference between the control group and the experimental groups mean scores in the post-assessment of EFL overall academic enablers and its dimensions in favor of the experimental group as T-value was **7.900** which is significant at 0.01. This means that the experimental group achieved more development in their EFL academic enablers and its dimensions. Also, in the pre- post administration of the EFL academic enablers scale for the experimental group, the participants showed a significant progress for the post- administration. These results confirmed the third and fourth hypotheses statistically.

The Blended Cognitive Apprenticeship-based program has verified to be effective in developing EFL overall academic enablers and its dimensions for the experimental group. This progress can be ascribed to numerous causes. The researcher used authentic resources that were

suitable to students' level and raise their curiosity and interest in learning new skills. Through the Modeling strategy the researcher carried out a task so that student observe and build a conceptual model of the processes required to accomplish the task. They also, take responsibility for their actions and this enables them to achieve communication purposes. Through the synchronous learning, participants developed their skill to work individually, in addition to the ability to work cooperatively with others and that affects positively on their interpersonal skills as an important dimension of EFL academic enablers.

Through the sessions practice, the researcher enabled the study participants to communicate their knowledge, reasoning, or problem-solving processes in an area. She provides synchronous online feedback during the sessions, as a result they learn how to go purse challengeable assignments and feel an excessive pleasure while learning new skills that affects positively on their own motivation. In conducting the tasks within others in Facebook or WhatsApp groups they feel energetic and capable when working in team work. The study participants feel positive about their learning and being involved actively in various tasks. These results are consistent with Rodríguez-Bonces and Ortiz, (2016)

The various activities and tasks within each session of the blended cognitive apprenticeship- based program helped participants to apply time management and task management skills and submit their work on time. They have the opportunity to discuss learning with their instructor and peers throughout tasks and apply the study skills significant for academic success at all level they acquire through the program' sessions. These results are consistent with Saadati , Ahmad, Mohd and Abu Bakar (2015) and Al-Tonsi, (2018).

In conclusion, it can be asserted that participants' EFL critical reading skills and academic enablers are developed after participating in the blended cognitive apprenticeship –based program.

8- Conclusion:

The results of the study asserted that the participants' critical reading skills were developed and their academic enablers were enhanced through the implementation of the blended cognitive apprenticeship-based program. The implications from the findings of this study support Language learners can improve their skills in a relaxing atmosphere so they learn to accept the comments from others. This is very different

from the traditional teacher feedback pedagogy which does not offer any varieties for apprentices.

The participants in the experimental group became good at the appropriate mentioned critical reading subs-kills because they have a tendency to to be analytical and sensible to detail of information in the texts. Furthermore, the type of the texts can also add to their high critical reading performances, which are the expository and explanatory texts, that emphasis on the explaining and evaluating the occasions in detail. They were also sensitive and capable of recognizing the tone of writing in the text to identify the author's purpose of reading text. Pedagogically, the researcher provided suitable sorts of texts for the students' practice in critical reading activities. Accordingly, the researcher was thoughtful with the types of the text assumed to the students for their critical reading practice because each student has his/her cognitive style which differently influences their technique of understanding the text critically (Brown, 2007; Saracho, 1997; Khatib & Hosseinpur, 2011, Par,2018).

Based on the information presented before, it is possible to conclude that the blended cognitive apprenticeship- based program that used some blended learning tools such as Facebookand whatsapp can help teachers to blend online instruction with conventional face-to-face teaching successfully (Grgurovic, 2010). Therefore, EFL teachers need to be imaginative and up-to-date with the present technology to keep up with the fast-paced society. Therefore, through cautious organization of the cognitive apprenticeship strategies and using facebook and whatsapp , EFL teachers would have a dominant instructional tool to involve students in expressive language-based activities and to enrich their EFL critical reading skills ,academic enablers' and various other language skills learners (Mills, 2009).

9- Recommendations of the study:

The results of the research proposed a number of recommendations for classroom teachers looking to improve their reading instruction, as follows:

- English language teachers should be trained on using blended cognitive apprenticeship strategies in EFL reading skills and academic enablers.
- Investigating the effect of Cognitive apprenticeship blended program in TEFL.

- Modify the curriculum design of the preparatory and secondary stage in the light of the blended learning cognitive apprenticeship program.
- EFL student teachers should practice on the educational benefits of using blended learning tools such as (WhatsApp and Facebook) in reading skills and other language skills.
- Curriculum designers must take into their account the importance of embedding blended cognitive apprenticeship strategies in the syllables of different stages.

10- Suggestions for further Research:

Within the limitations of the present research as well as the findings being accomplished, the next areas are suggested for further research:

1- Using blended learning cognitive apprenticeship based program to develop student teachers' communicative skills and professional development.

2- Using blended learning cognitive apprenticeship- based program to develop oral proficiency skills among EFL student teachers.

3-Developing other language skills among EFL student teachers such as writing or listening through using the blended cognitive apprenticeship- based program.

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