The Impact of Pragmatic Tasks on EFL Prospective Teachers' Critical Thinking Skills

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Abstract
The present study aimed at investigating the effect of pragmatic activities on developing EFL prospective teachers’ critical thinking skills. The study sample consisted of 30 prospective teachers studying at the department of English at the faculty of Education in Damietta University. The sample was divided into two groups: an experimental group (N = 15) and a control one (N = 15). A pre-post critical thinking skills test was implemented on the participants to compare their skills before and after implementing the experiment. The pragmatic tasks were implemented on the experimental group for six weeks while the control group did not receive any instruction except their regular courses at the faculty. The result of the study showed that the effect size of pragmatic tasks was appropriate in developing EFL prospective teachers’ critical thinking skills. The study offered suggestions for further research. The results asserted that engaging students in pragmatic learner-centered activities through discussing and analyzing utterances help promote their critical thinking skills.

Key words: pragmatic tasks, EFL prospective teachers, critical thinking skills
1. Introduction

Critical thinking is the type of thinking that comprises higher order skills such as analysis, inference and evaluation. It is one of the 21st century skills that everyone should master to cope with the changing world. There is no agreement about the exact nature of critical thinking and scholars tended to define it from different perspectives. Eggen and Kauchak (1996, p.50) defined critical thinking as the process of assessing conclusions based on evidence. This process takes several forms such as: confirming conclusions with facts, identifying bias, stereotypes, clichés and propaganda, identifying unstated assumptions, recognizing overgeneralizations and undergeneralizations and identifying relevant and irrelevant information. Moore and Parker (2009, p.3) described critical thinking as the careful application of reason in the determination of whether a claim is true. It is the evaluation of claims or it is thinking about thinking. Moreover, Marin and De la Pava (2017, p.83) characterized critical thinking in EFL as a compound of communicative competence, creativity, argumentation, problem-solving, decision-making, autonomous learning, metacognition and emotions. They described the critical thinker as an active learner who constantly asks questions, searches for information, analyzes and organizes his thoughts to establish relationships between topics discussed in classes and other aspects of daily life.

Research supposed that critical thinking in the 21st century skill becomes a necessity for individuals not an option. It enables people to make reasonable decisions based on analysis and evaluation. Additionally, it helps refuse the taken for granted assumptions based on society beliefs or prejudice. Hence, Lai (2011) asserted that critical thinking facilitates good judgment because it relies on acceptable criteria. Moreover, Zhang and Kim (2018) stated that critical thinking enables people to improve their abilities of criticizing, questioning, evaluating and reflecting. Besides, Kallet (2014) noted that it prevents a distorted picture helping persons to examine all statements and evidences to get the full view to think clearly. Moreover, Snyder and Snyder (2008) asserted the importance of critical thinking to help individuals solve their problems, make effective decisions and be effective either in the workplace or in their personal lives. Hence, Jensen
(2015) confirmed that critical thinking ability is very important for a job as employers search for candidates who can think critically.

Besides, Enciso, Enciso and Daza (2017) supposed that developing students' critical thinking skills is a dire need in today's world to cope with the demands of 21st century society characterized by rapid changes in every field where knowledge is critical for a nation growth. Therefore, it should be an indispensable part of everyone's mental ability in this rapidly transforming age. Jensen (2015) believed that critical thinking is important to achieve success inside and outside the classroom by learning to manipulate concepts and grasp them deeply. Zhang and Kim (2018) emphasized that critical thinking can improve students’ language learning efficiency, build up their confidence in study and facilitate their learning processes. Ordem (2017, p.51) indicated that critical thinking helps learners not only discuss and negotiate meaning of words, grammar, dialogues and discourse but also analyze, synthesize, assess, question and become skeptical of topics, data and evidence brought into classroom environment. Ramezani, Larsari and Kiasi (2016) proved that practising critical thinking improves the ability to speak as they are supposed to be engaged in discussions or debates or they may ask or respond to questions, thus to promote their speaking skill. Moreover, Bagheri (2018) agreed with Sanavi and Tarighat (2014) that critical thinking strategies help learners become active listeners communicating with other students by listening carefully to them, judging their utterances and making the best decisions based on what is said in the dialogue. Zare and Othman (2015, p.159) noted that higher education success depends on the extent to which students are guided and assisted to think independently and critically, and build up their opinions according to valid research studies, evidences, theories, and professional values and principles.

Based on the above discussion, it can be said that critical thinking is an important skill to be mastered by everyone and especially by EFL faculty students. Kaur (2015, p.108) perceived critical thinking as one of the 21st several skills important to groom students for post-secondary stage. Therefore, instructors should search for appropriate strategies and incorporate proper activities that help students practise and develop their critical thinking skill. Vdovina and Gaibisso (2013)
supposed that critical thinking requires active and interactive learning. Consequently, engaging in interactive tasks will help students develop their critical thinking. Thus, teaching pragmatic aspects based on critical discourse analysis may improve prospective teachers' critical thinking skills. This investigation can help them analyze interactions, understand spoken interactions, take account of relationships with others, adjusting their language according to the meanings they wish to get across, and responding to verbal or non-verbal signals from their listeners and to practise critical thinking skills. Therefore, pragmatic tasks can be an effective intervention to develop learners' critical thinking as they can clarify how language is used in context.

Pragmatics is an important aspect of learning a language. It is considered the backbone of language use in social interactions. It determines how speakers interact in various situations and the choices they make according to multiple speakers and situations to make appropriate speech. Griffiths (2006) agrees with Embugushiki (2010) that pragmatics is the use of utterances in context, about how people manage to convey more than what is literally encoded by the semantics of sentences. They stated that pragmatics deals with inferences that listeners make, or that — when speaking — they invite others to make. Bardovi-Harlig (2013) states that pragmatics is the study of how-to-say-what-to-whom-when and how learners come to know this. Also, Siegel (2016) defines pragmatics as the study of how language is used in interactions. Gorjian and Pourkaram (2018, p.122) demonstrated that pragmatics includes the study of how the interlocutors use the utterances and interpretations based on their social, cultural and linguistic knowledge of the real world; and how the speakers use the understandable speech; or how the relationships between two speakers influence the structure and the intention of the sentences.

In studying pragmatics, there are some aspects of meaning and of language use in contexts. Horn and Ward (2006) stated that pragmatic aspects of meaning involve the interaction between an expression’s context of utterance and the interpretation of elements within that expression. One of these aspects, as Valeika and Verikaitė (2010) stated, is called deixis which refers to a linguistic structure, a word or a phrase, which speakers use to help addressee identify entities related to a specific context to make meaning clear. Yule (1996) explained that a
presupposition is found according to speakers; they presuppose that something is found before speaking. To add, Allott (2010) agreed with Valeika and Verikaitė (2010) that a presupposition is an important aspect of pragmatics which describes prior information the speaker takes for granted in communication and requires the hearer to accept what is known beforehand. Moreover, an important principle of pragmatics is called implicature which, according to Rafieyan (2015), refers to the additional meaning that the speaker infers from an utterance which may be different from what they actually say. Finally, Yule (1996, p.7) assumed that speech acts are another aspect which includes actions or communicative intentions performed by an utterance such as complaint, invitation, promise or apology.

In the light of the above-mentioned discussion, students can be trained to study pragmatic features through real-like interactions to improve their critical thinking ability. Pradita (2014) asserted that pragmatics facilitates critical thinking; for example speech acts help the students improve their reasoning skills. He asserted that observing and evaluating authentic materials based on pragmatic principles and Socratic questions help students improve their critical thinking. The study of Wisudariani and Sriasih (2017) proved that materials and topics based on pragmatic problem-based learning improved the understanding and the ability of critical thinking. These materials allowed students to think logically and critically. Therefore, the researcher sought to empirically probe the impact of pragmatic tasks on developing EFL prospective teachers’ critical thinking skills.

1.1 Problem of the study

One of the main objectives of education is promoting the ability to think critically. Research (Hughes, 2014; Shim & Walczak, 2012; Wallace & Jefferson, 2015) asserted that one of the primary goals found in college and university mission statements and a key study skill of higher education is to promote students’ ability to think critically. In a nutshell, Feng (2013) believed that critical thinking has been regarded as an essential and indispensable outcome of education, so college students must receive a formal explicit instruction to foster their critical thinking skills.
Despite constant interests in fostering critical thinking in higher education, Shim and Walczak (2012) assumed that there is evidence that college graduates lack critical thinking and problem-solving skills needed in today’s workplaces. Research indicated that there are no adequate tasks for developing critical thinking included in textbooks. Ren and Wang (2018) stated that contemporary college students are now faced with the fact that their critical thinking ability is weakening. They added that despite the excellence of most students at lower thinking skills, their performance in higher order skills such as analysis, reasoning, evaluation and synthesis is far from satisfactory. They explained that some of college teaching materials are hopelessly outdated and their current assessment system discourages cultivation of critical thinking skills. In addition, Tosuncuoglu's study (2018) was conducted to understand student awareness of critical thinking. It showed that students’ practice and awareness about thinking critically was not at the desirable level. Moreover, Gashan (2015) asserted that pre-service teachers who were enrolled in the College of Education were found to have inadequate knowledge about critical thinking skills. Solihati and Hikmat's study (2018) investigated to what extent tasks included in the language textbooks of senior secondary school contained the elements of critical thinking. The findings showed that the elements of critical thinking (clarification, reason and evidence, viewpoint or perspective, consequence and alternative, agreement and disagreement, as well as summary and conclusion) are insufficiently represented in textbook tasks.

Due to the importance of critical thinking skills especially for prospective teachers at one hand and their weak critical thinking skills at the other hand, research called for caring for developing these skills. Bakir (2015) recommended incorporating applied courses in pre-service teachers' preparation programs as critical thinking has a prominent role in training up future generations. He added that critical thinking is represented as a quality indicator of college graduates. Moreover, Dehghayedi and Bagheri (2018) recommended that critical thinking has to be incorporated into EFL teacher training and short-term in-service programs. Similarly, Gashan (2015) recommended that education preparation programs need to incorporate specialized courses in critical
thinking skills. He added that pre-service teachers are required to be fully aware of critical thinking skills, and the best strategies to teach them later in their classes. Besides, Solihati and Hikmat (2018) advised textbook writers to include more tasks promoting critical thinking skills. In addition, they recommended that language teachers need to be taught how to modify tasks that can promote critical thinking skills among students. Additionally, Shim and Walczak (2012) advised instructors and teaching assistants to learn how to organize class presentations, formulate and ask challenging questions in class and encourage students to apply course concepts for effectively teaching critical thinking abilities. Finally, Liu (2017) recommended to incorporate the element of extracting diverse ideas from multiple sources to foster critical thinking.

Due to the importance of pragmatics in developing learners’ thinking and use of language, research asserted the importance of teaching and incorporating pragmatic aspects in English instruction. The study of Suryoputro and Suyatno (2017) recommended the inclusion of pragmatic features in the English textbooks with some pragmatic exercises. They advised designing comprehensively contextual and appropriate examples of pragmatic elements by English textbook authors. Also, Wisudariani and Sriasih (2017) proved that pragmatic material had a central role in learners’ critical thinking development and it was a supporter of success in understanding the purpose of communication. These materials helped learners discover and use their own analytical abilities through critical review. They asserted that educators need not to change the existing subject matter to develop students’ critical thinking skills; rather the textbook needs to be adapted through including critical issues relevant to the substance of the material. Suryoputro and Suyatno (2017) recommended that pragmatics course be included in the curriculum of the prospective teachers’ training.

To sum up, the problem of the study can be identified in EFL prospective teachers' poor critical thinking skills. Due to the important role of pragmatics in acquiring norms of appropriate interaction in different contexts; pragmatics aspects can be taught for developing critical thinking skills. Hence, the researcher intended to use pragmatic tasks to teach pragmatic aspects implicitly to EFL prospective teachers. Consequently, the current study sought to investigate to what extent
pragmatic tasks can develop EFL prospective teachers' critical thinking skills.

The study attempted to answer the following questions:
1- What are the critical thinking skills required for EFL prospective teachers?
2- To what extent are those students competent in critical thinking skills?
3- What are the features of the pragmatic tasks suggested for developing EFL prospective teachers' critical thinking skills?
4- What is the impact of the proposed pragmatic tasks on developing EFL prospective teachers' critical thinking skills?

2. Review of literature

It is concerned with sketching literature and studies related to pragmatics and critical thinking. The researcher sought to review literature and previous studies conducted on using pragmatics and pragmatic tasks to identify how pragmatic aspects are taught and how pragmatic tasks are designed. Also, literature and previous studies performed on critical thinking were checked to help the researcher benefit from the previous efforts done for developing critical thinking as well as the strategies used to improve that skill. Also, examining the previous research helped the researcher design the research tools.

2.1 Pragmatics

Pragmatics studies how language can be used in actual contexts. It equips learners with strategies and devices for communicating effectively and interpreting other speakers’ speech. Deda (2013) stated that the goal of instruction in pragmatics is to help learners become familiar with the range of pragmatic devices and practices in the target language. Suryoputro and Suyatno (2017, p.56) indicated that the main purpose of English teaching at schools is usually to help students have communicative competence in English. To achieve that purpose, they have to acquire pragmatic elements in order to use language in socially and culturally appropriate ways and infer both implied and overt meaning of the language according to its context.
Rueda (2006), Grossi (2009), Sachtleben and Denny (2011) and Kaliska (2018) stated that using authentic discourse materials becomes a very helpful tool to provide FL learners with contextualized, pragmatically appropriate input, build pragmatic knowledge and develop learners’ pragmatic competence. This leads to better interpretation of implied meaning and purpose of speech. In addition, Rueda (2006) indicated that pragmatics instruction includes input exposure to pragmatic activities, discussions of the metapragmatic knowledge and engagement in communicative activities where learners can practise what they have acquired. Thus, pragmatic skills can be taught by inviting learners to take part in activities that require their involvement and effective language use.

Research proved the importance of using pragmatics in different learning aspects. For example, the study of Rajabi, Azizifar and Gowhary (2015) concurred with Deda (2013) and Shirkhani (2014) that teaching pragmatics is very beneficial to students in order to learn how to perform different functions appropriately in different social situations with different social norms and rules. Also, that study revealed that teaching pragmatics equips the learners with enough knowledge to choose and adopt the appropriate social rules when communicating with the target language to convey the intended messages easily. Deda (2013) assured that pragmatic knowledge prevents learners from inaccuracies and misunderstandings during communication. Gaily (2014) indicated that pragmatic failure leads to serious consequences such as negative judgments of learners or bad temperament; the lack of pragmatic proficiency is a direct indication of learner’s inability of the successful use of language. Thus, Deda (2013) noted that the teaching of pragmatics aims to facilitate the learners’ ability to find socially appropriate language for the situations they encounter.

Several studies proved the positive effect of using pragmatics to develop language skills. The study of Abu Elenein (2015) proved the effectiveness of a pragmatic-based program on developing English majors' translation skills. Also, Mohammed (2016) used a blended program in pragmatics and it was effective in improving third year English majors' written communicative competence. Furthermore, the study of Hedia (2017) asserted the positive effect of using
communicative activities and explicit instruction of pragmatics on developing first-year faculty students’ speaking skill. Likewise, the study of Abdel Qader (2018) stated that pragmatics managed to develop receptive language skills (listening and reading) and understanding meaning. Moreover, it proved that pragmatics had a considerable effect on oral expressive fluency. Finally, the study of Gorjian and Pourkaram (2018) asserted that using pragmatic tasks explicitly to teach speaking skill was effective in developing learners’ speaking proficiency.

Rueda (2006), Martínez-Flor and Soler (2007), Soler (2008), Glaser (2013), Bagheri (2015), Rafieyan (2015), Rajabi, Azizifar and Gowhary (2015), Muthusamy and Farashaiyan (2016), Noonkong and Charttrakul (2017), Gorjian and Pourkaram (2018) and Kaliska (2018) revealed that there are two kinds of interventions for instructing pragmatics: deductive (explicit) and inductive (implicit). Glaser (2013) explained that the deductive teaching involves providing students with metapragmatic information and strategies following this with exercises and activities to practice these rules. Bagheri (2015) indicated the importance of incorporating pragmatics into the classroom curriculum through developing materials suitable for the explicit teaching of pragmatics. On the other hand, Rafieyan (2015) and Martínez-Flor and Soler (2007) mentioned that the implicit instruction of pragmatics depends on actively engaging learners in analyzing and discovering intended features themselves, guided and helped—but not dominated—by the teacher. It starts with presenting material and examples which contain the pragmatic features to learners without giving them any explicit rules. After that, learners are encouraged to engage in language use and language discovery activities. Glaser (2013) asserted that inductive instruction is superior to deductive teaching due to the use of higher order thinking and guided discovery.

However, there is no agreement about the superiority of a certain intervention over the other. Some studies, for example Martínez-Flor and Soler (2007), suggested the effectiveness of both approaches to develop learners’ pragmatic awareness. Explicit teaching helps learners justify their responses by employing the metapragmatic terms they had been taught. Grossi (2009) revealed that explicit classroom instruction can assist learners from different backgrounds even if more advanced
learners may develop awareness without instruction. Other studies (Gaily, 2014; Gorjjan and Pourkaram, 2018; Noonkong and Chartrtrakul, 2017; Rajabi, Azizifar and Gowhary, 2015; Soler, 2008) revealed that explicit instruction of pragmatic aspects had positive influences on students’ metapragmatic awareness and pragmatic use of English. Additionally, others (Glaser, 2013; Muthusamy & Farashaiyan, 2016) revealed that inductive instruction is more useful and effective than deductive instruction to teach L2 pragmatics. Finally, Muthusamy and Farashaiyan (2016) as well as Glaser (2013) suggested combining both the deductive and inductive approaches together to allow an inductive discovery process while providing explicit rules for pragmatics instruction.

2.2 Critical thinking

Critical thinking is the mental process that involves asking appropriate questions, gather information and relate new information to existing knowledge to enable people to re-examine beliefs, reason logically, and draw reliable conclusions. Enciso, Enciso and Daza (2017) explained that learning to think critically can help students adapt to continuous social, cultural and technological change. Therefore, Malmir and Shoorcheh (2012) asserted that critical thinking skills are required to be taught since students' thinking skills are not enough to face the problems they deal with either in education or in daily life. For that reason, Saleh (2019) recommended instructors to integrate critical thinking in language education to promote students’ abilities to judge the quality of lectures and lessons, form their own arguments and participate in class.

For teaching critical thinking skills, instructors use a set of strategies to stimulate their students' thinking and develop their mental ability. These strategies range from being teacher-assisted to purely student-controlled. All these strategies aim at involving students in tasks to argue, analyze, criticize, judge, solve problems and evaluate situations. For example, the study of Sanavi and Tarighat (2014) tried to investigate the impact of explicit teaching of critical thinking skills on EFL college learners. The participants were engaged in discussions and observations. The results revealed that raising critical thinking awareness
explicitly has a significantly positive impact on the EFL students’ speaking proficiency.

Marin and De la Pava (2017) stated that questioning is one of the techniques for teaching critical thinking. Kaur (2015) and Lai (2011) stated that in using questioning, instructors can start with lower order questions and lead up to higher order questions. Jensen (2015) proved the positive effect of Socratic questioning method on developing students' critical thinking skills. There are three types of questions used in Socratic questioning: spontaneous, exploratory, and focused. Spontaneous questions are unplanned questions that emerge by teachers during instruction to provoke deeper knowledge about the concept or idea being taught. Exploratory questions are planned questions that involve activating prior knowledge and previous connections to find what students may already know about the concept. Focused questions are planned ahead by the teacher, and challenge students to think about the concept at a higher level.

Furthermore, Marin and De la Pava (2017) recommended using oral discussions about topics of interest to develop critical thinking in foreign language learning. Kaur (2015) and Lai (2011) demonstrated that discussion is a successful team activity to engage students to interact and think with each other. On the other hand, Brookfield (1998) stated that debate is the commonest way of implementing critical thinking. Zare and Othman (2015) indicated that debate functions to develop critical thinking skills such as analyzing, synthesizing, recognizing the flaws in each other’s arguments, evaluating the reliability of resources, identifying and challenging assumptions prioritizing the relevance and importance of different points in the overall discussion and impromptu speaking. The study of Iman (2017) explored the significance of using debate to improve the students’ critical thinking and speaking skill achievements. The findings showed that the use of debate significantly improves the students’ critical thinking.

In addition, Zare and Othman (2015) investigated undergraduate students majoring in teaching English Language students' perceptions of utilizing classroom debate to improve critical thinking skills and oral communication. The participants believed that the debates helped
improve their critical thinking skills and oral communication ability. The participants enjoyed the debates and found the experience interesting. In addition, they emphasized the important role of debate in reducing their stage fright and increasing confidence to talk freely without anxiety in front of others. Furthermore, they learned to search for evidences and proofs to support their arguments, look for reasons, and see the issues from different angles and take multiple perspectives into consideration.

Kaur (2015) and Lai (2011) indicated that when using cooperative learning as a stand-alone strategy to enhance critical thinking skills, it includes some techniques like group investigation, student team-achievement divisions and jigsaw II. There is a strong relation between students' cooperation and good relations with others in developing critical thinking, hence social experiences can shape students' reasoning abilities about the credibility of claims. To add, Erdogan (2019) asserted the positive effect of cooperative learning supported by reflective thinking activities on students' critical thinking skills. Besides, Marin and De la Pava (2017) pointed out that problem-solving is a useful approach to develop critical thinking as it develops students' critical abilities and enables them to argue, criticize, investigate and judge social phenomena, dilemmas, and knowledge. Zhou's study (2018) proved the effectiveness of problem-based learning teaching model on improving students’ critical thinking ability.

Thus, numerous studies proved the importance of critical thinking especially for EFL prospective teachers. Moreover, analysis of pragmatics aspects was proved to have a positive effect on developing the students’ abilities to interpret, analyze, infer and evaluate utterances. Therefore, it is recommended to use pragmatic tasks to develop EFL learners’ critical thinking. Consequently, the current study sought to investigate how far pragmatic tasks can develop EFL prospective teachers’ critical thinking skills.

3. Methodology
The current research used the quasi-experimental design. The sample was selected from EFL prospective teachers studying at the third year English Department in Damietta Faculty of Education. The participants were divided into two groups: an experimental group and a control one. The critical thinking skills of the two groups were measured using a pre-post critical thinking skills. The proposed tasks were implemented on the experimental group to develop their critical thinking skills while the control group did not receive any extra instruction except their regular courses at the faculty. The mean scores of the pre- and post-tests were compared to check the impact of the designed pragmatic tasks on developing EFL prospective teachers’ critical thinking skills.

3.1 Participants of the study

Participants of the study were 30 EFL prospective teachers (n=30) studying at the third year English Department in Damietta Faculty of Education during the second term of the academic year 2020/2021. The participants were divided into two groups. The experimental group consisted of 15 prospective teachers chosen at random from third year English Department in Damietta Faculty of Education. Also, the control one comprised of 15 prospective teachers. The two groups were taught by the same professors with the same educational background and experiences.

3.2 Hypotheses of the study

The study attempted to test the following hypotheses:

- There is no statistically significant difference between the mean scores of the experimental and control group students in the pre-application of the critical thinking skills test.
- There is a statistically significant difference at ≤ (0.05) between the mean scores of the experimental group and the control group students in the post-application of the critical thinking skills test in favor of the former.
There is a statistically significant difference at $\leq (0.05)$ between the mean scores of the experimental group in the pre- and post-application of the critical thinking skills test in favor of the latter.

The proposed pragmatic tasks have a positive effect on developing EFL prospective teachers' critical thinking skills.

### 3.3 Instruments of the study

In order to collect data related to the current study, the researcher used a questionnaire to investigate the critical thinking skills required for EFL prospective teachers. The researcher mainly adopted Facione’s (2015) classification of main critical thinking skills with one modification: joining interpretation and explanation skills together, for designing the questionnaire. To verify the validity of the checklist, the researcher submitted it to a jury of specialists in TEFL to determine its importance and appropriateness. The items were put in a four-point scale according to their importance: very important, important, less important and not important. The questionnaire was modified according to their comments and suggestions till a critical thinking skills checklist was set. The checklist was composed of four main critical thinking skill areas: interpretation and explanation, analysis, inference and evaluation. Every main skill area contained a group of sub-skills. For example, interpretation and explanation involve 6 sub-skills, analysis and evaluation skills include 4 subskills for each and inference skills involves 3 subskills. It includes a total of 17 skills (see table 1).

Moreover, a pre-post critical thinking skills was used to assess students’ critical thinking skills before and after the experiment. The test consisted of twenty-one multiple choice questions; each question was devoted to measure one skill except the first and last two skills were measured using two questions. It measured four main skills: interpretation and explanation, analysis, inference and evaluation. Each skill contains a number of sub-skills. Two and four points were given for each correct answer related to interpretation and explanation skill. Analysis and evaluation skills had six points for each correct answer. Eight points were given for each correct answer related to inference
skill. The time required to complete the test was calculated as 60 minutes.

To verify the validity of the test, the researcher submitted it to a panel of jury specialized in TEFL to investigate whether the test questions measure what they were designed to measure or not. The test was modified according to their comments and suggestions. Also, the internal consistency validity of the test items was calculated and it ranged between (0.59) and (0.91). Moreover, the construct validity was calculated and the validity coefficients were (0.84, 0.93, 0.89 and 0.94) which were all statistically significant at ≤ 0.05. Thus, the critical thinking skills test was valid to measure EFL prospective teachers’ critical thinking skills.

To establish the reliability of the test, it was administered to a group of fifteen EFL prospective third year teachers, other than the study participants, who were randomly selected from the Faculty of Education in Damietta university. The researcher used Cronbach's alpha coefficient to calculate the reliability of the critical thinking test. The reliability coefficient of the critical thinking test was (0.91).

Table 1
The critical thinking skills measured by the test

<table>
<thead>
<tr>
<th>A) Interpretation and Explanation</th>
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<tbody>
<tr>
<td>1. Proposing the correct explanations of a certain discourse: situations, views and ideas, etc.</td>
</tr>
<tr>
<td>2. Decoding information about the speakers and context.</td>
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<tr>
<td>3. Justifying the choice of words and expressions.</td>
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<tr>
<td>4. Identifying someone’s point of view.</td>
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<td>5. Displaying results of one’s reasoning.</td>
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<td>6. Presenting arguments about a particular issue.</td>
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<tr>
<th>B) Analysis</th>
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<tbody>
<tr>
<td>7. Analyzing different perspectives and opinions.</td>
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<tr>
<td>8. Revealing the purpose of the discourse.</td>
</tr>
<tr>
<td>9. Examining reasons for claims.</td>
</tr>
</tbody>
</table>
10. Determining the main ideas to get the global meaning of the discourse.

C) Inference

11. Inferring implicit information included in the discourse.
12. Formulating context-based conjectures to draw reasonable conclusions.
13. Distinguishing between valid and invalid inferences.

D) Evaluation

14. Assessing the appropriacy of utterances to speakers according to formality and politeness.
15. Providing a convincing evidence for judging an utterance or making a decision.
16. Assessing appropriacy of arguments (i.e., whether an idea is logical or contradictory).
17. Discriminating between facts and opinions.

3.4 The treatment

The tasks were designed for analyzing pragmatic aspects from authentic videos. The implementation of the proposed tasks started on the 7th of April and lasted for six weeks. The researcher met the experimental group three sessions per week for the first three weeks and then two sessions per week for the other three weeks. The duration of the session was eighty minutes. Before implementing the tasks on the experimental group, the researcher conducted the pre-critical thinking skills test to evaluate prospective teachers’ critical thinking skills. Then, the researcher prepared the pragmatic tasks. A teacher's guide was previously prepared by the present researcher. She met the participants of the experimental group three sessions per week for the first three weeks and then two sessions per week for the other three weeks. The duration of the session was eighty minutes. The treatment lasted for fifteen sessions. The first session was dedicated for the pre-application of the critical thinking test. Then, in the second session, students were informed that they were going to discuss videos on the basis of pragmatic principles. Also, students were given some models of how to pragmatically discuss the videos and the researcher explained how to
analyze videos in the later sessions. The videos used were educational videos downloaded from YouTube and some subtitled clips from films. Then, in later sessions, students were responsible for implicitly discussing pragmatic aspects depending on some questions in order to communicate with the teacher and with each other. Moreover, two revision sessions were used to revise what students had understood and practised after each four sessions and another one after finishing all the sessions. Finally, the last session was divided into two sessions devoted to the post-application of the critical thinking test.

Each session was composed of four stages. In warm up, the researcher used either audio files (mp3 dialogues) or questions to start the lesson and activate students’ minds to focus on the pragmatic aspect used. Then, the presentation stage was composed of two steps: one step for discussing the video depending on the pragmatic principle being discussed and another step for discussing some questions for understanding what the pragmatic principle was and how it was used to express meaning. After that, the practice stage involved activities such as watching or listening to a dialogue and answering related questions, using pictures to role play, comment on pictures or dialogues, analyzing utterances for specific information and identifying meaning of speech or nonverbal cues. Finally, the evaluation stage was dedicated to students’ free practice of language to check students’ critical thinking skills used in every session.

4. Results

The statistical analysis was conducted using SPSS after the results of the test were collected. Results of the study are presented in the light of the research hypotheses.

The first hypothesis states that: There is no statistically significant difference between the mean scores of the experimental and control group students in the pre-application of the critical thinking skills test.

To verify this hypothesis, the researcher used Mann-Whitney test to compare the mean scores of the experimental and control groups in the
pre-administration of the critical thinking skills test. The results were shown in the following table.

Table 2
The mean scores of the experimental and control group students in the pre-administration of critical thinking skills test

<table>
<thead>
<tr>
<th>Main skills</th>
<th>Study groups</th>
<th>Mean</th>
<th>SD</th>
<th>Mann-Whitney Test</th>
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<td>Z</td>
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<tr>
<td>Interpretation and</td>
<td>Experimental</td>
<td>8.67</td>
<td>2.32</td>
<td>0.210</td>
</tr>
<tr>
<td>Explanation</td>
<td>Control</td>
<td>8.60</td>
<td>2.16</td>
<td></td>
</tr>
<tr>
<td>Analysis</td>
<td>Experimental</td>
<td>8.47</td>
<td>2.07</td>
<td>0.595</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>8.80</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>Inference</td>
<td>Experimental</td>
<td>7.33</td>
<td>2.44</td>
<td>0.084</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>7.67</td>
<td>2.69</td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td>Experimental</td>
<td>8.73</td>
<td>2.28</td>
<td>0.378</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>8.27</td>
<td>2.81</td>
<td></td>
</tr>
<tr>
<td>Total score</td>
<td>Experimental</td>
<td>33.20</td>
<td>5.56</td>
<td>0.312</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>33.33</td>
<td>6.33</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 showed Mann-Whitney test results for comparing the mean scores of experimental and control group students in the pre-administration of the critical thinking skills test. The mean scores of the experimental and control groups were approximate in each main skill and the overall scores. It is known that Z" value becomes significant if p-value is ≤ 0.05. The results showed that "Z" values for each skill and for the overall test were statistically insignificant. This indicated that there was not any statistically significant difference between the two groups in the pre-administration of the critical thinking skills test. The following two figures 1 and 2 display that result:
Figure 1
The mean scores of experimental and control group students in the pre-administration of critical thinking skills test

Figure 2
The mean total scores of experimental and control group students in the pre-administration of critical thinking skills test

Table 2 and its results as well as figures 1 and 2 showed that there was no statistically significant difference between the mean scores
of the experimental group and control group students in the pre-administration of critical thinking skills test. Thus, the first null hypothesis was accepted.

**The second hypothesis states that:** There is a statistically significant difference at ≤ (0.05) between the mean scores of the experimental group and the control group students in the post-application of the critical thinking skills test in favor of the former.

To verify this hypothesis, the researcher used *Mann-Whitney test* to compare the mean scores of the experimental and control groups in the post-administration of the critical thinking skills test. The results are shown in the following table.

Table 3
Significance differences of the mean scores of experimental and control groups in the post-administration of critical thinking skills test

<table>
<thead>
<tr>
<th>Main skills</th>
<th>Study groups</th>
<th>Mean</th>
<th>SD</th>
<th>Mann-Whitney Test</th>
<th>Z</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpretation and Explanation</td>
<td>Experimental group</td>
<td>21.13</td>
<td>1.30</td>
<td></td>
<td>4.266</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Control group</td>
<td>16.33</td>
<td>2.72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analysis</td>
<td>Experimental group</td>
<td>20.93</td>
<td>1.10</td>
<td></td>
<td>4.205</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Control group</td>
<td>15.80</td>
<td>3.38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inference</td>
<td>Experimental group</td>
<td>20.73</td>
<td>1.44</td>
<td></td>
<td>2.519</td>
<td>0.012</td>
</tr>
<tr>
<td></td>
<td>Control group</td>
<td>15.93</td>
<td>4.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td>Experimental group</td>
<td>21.47</td>
<td>1.30</td>
<td></td>
<td>4.151</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Control group</td>
<td>16.80</td>
<td>2.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total score</td>
<td>Experimental group</td>
<td>84.27</td>
<td>2.69</td>
<td></td>
<td>4.675</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Control group</td>
<td>64.87</td>
<td>6.05</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 showed Mann-Whitney test results for comparing the significance between the mean scores of experimental and control group students in the post-administration of the critical thinking skills test. Hence, the researcher could conclude that with reference to overall critical thinking skills the mean scores of the experimental group in the post administration (84.27) was higher than those of the control group
(64.87). The "Z" value was (4.675) and the p-value was (0.001) which is less than (0.05). Hence, this indicated that there was a statistically significant difference between the two groups in the post-administration of the overall critical thinking test in favor of the experimental group.

The following two figures 3 and 4 indicated that result:

**Figure 3**
The mean scores of experimental and control group students in the post-administration of each skill in the critical thinking skills test.

**Figure 4**
The mean overall scores of the experimental and control group students in the post-administration of the critical thinking skills test.
Based on the results shown in table 3 and figures 3 and 4, it could be said that there was a statistically significant difference at ≤ 0.05 between the mean scores of the experimental group and control group students in the post administration of the critical thinking skills test in favor of the experimental group. Thus, the second hypothesis was accepted.

The third hypothesis states that: There is a statistically significant difference at ≤ (0.05) between the mean scores of the experimental group in the pre- and post-application of the critical thinking skills test in favor of the latter.

To verify this hypothesis, the researcher used Wilcoxon signed ranks test to compare between the mean scores of the experimental group in the pre- and post-administration of the critical thinking skills test. The results are shown in the following table.

Table 4 showed Wilcoxon signed ranks test results used for comparing the mean scores of the experimental group in the pre- and post-tests of the critical thinking skills test. Analyzing the findings of
overall critical thinking skills showed that the mean scores of the experimental group in the pre-test was (33.20) whereas the mean scores of the post test was (84.27). The Z" value was (3.410) and the P-value was (0.001), which was less than (0.05). To sum up, this shows that there was a statistically significant difference between the mean scores of the experimental group in the pre- and post-administration of overall critical thinking skills in favor of the latter. The following two figures 5 and 6 indicated that result:

![Figure 5](image)

**Figure 5**
The mean scores of experimental group students in the pre- and post-administration of critical thinking skills test

![Figure 6](image)

**Figure 6**
Mean total scores
The mean overall scores of experimental group students in the pre- and post-administration of critical thinking skills test

Table 4 and figures 5 and 6 revealed that there was a statistically significant difference at \( \leq 0.05 \) between the mean scores of the experimental group in the pre- and post-administration of the critical thinking skills test in favor of the post one. Therefore, the third hypothesis was confirmed.

**The fourth hypothesis states that:** The proposed pragmatic tasks have a positive effect on developing EFL prospective teachers’ critical thinking skills.

To verify this hypothesis, the researcher used Cohen’s effect size equation. Cohen (1988) gave an explanation for interpreting effect size. He said that the effect size is small if it is (0.1), medium if it is (0.3) and large if it is (0.5). The results were shown in the following table.

<table>
<thead>
<tr>
<th>Main skills</th>
<th>Z</th>
<th>N</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpretation and Explanation</td>
<td>3.436</td>
<td>15</td>
<td>0.8872</td>
</tr>
<tr>
<td>Analysis</td>
<td>3.417</td>
<td>15</td>
<td>0.8823</td>
</tr>
<tr>
<td>Inference</td>
<td>3.419</td>
<td>15</td>
<td>0.8828</td>
</tr>
<tr>
<td>Evaluation</td>
<td>3.417</td>
<td>15</td>
<td>0.8823</td>
</tr>
<tr>
<td>The critical thinking</td>
<td>3.410</td>
<td>15</td>
<td>0.8805</td>
</tr>
</tbody>
</table>

Table 5 shows the effect size of the pragmatic tasks on developing experimental group students' critical thinking skills. The effect size for the critical thinking skills ranges between (\( \cdot \cdot^{\wedge} \cdot \cdot \)) and (\( \cdot \cdot^{\wedge} \cdot \cdot \)) and the overall critical thinking was (\( \cdot \cdot^{\wedge} \cdot \cdot \)); all of them were larger than (0.5) as decided by Cohen for judging the effect size. Hence, this revealed that the effect size of the pragmatic tasks was large and they managed to
develop the experimental group students' critical thinking skills. The following figure shows that:

**Figure 7**
The effect of pragmatic tasks on developing experimental group students' critical thinking skills

Based on the results shown in table 5 and figure 7, it could be said that the pragmatic tasks had a large effect size on developing the experimental group students' critical thinking skills. Thus, the fourth hypothesis was verified.

**Discussion**

The findings proved that there was a statistically significant difference at $\leq 0.05$ between the mean scores of the experimental group and control group students in the post-administration of the critical thinking skills test in favor of the experimental one. The pragmatic tasks were effective in developing EFL prospective teachers’ critical thinking skills. Furthermore, the biggest effect size of the tasks was on inference skill. This could be interpreted as the nature of pragmatics as including some aspects (implicature, presupposition) related to inferring their meaning either from or away from context. While implementing the tasks, the researcher taught students how to use clues and evidence to
infer implicit meaning. She found that their inference ability was developing along the sessions.

It was found out that using the pragmatic tasks had a big effect on developing EFL students’ critical thinking skills. This agreed with the study of Pradita (2014) which asserted that pragmatics facilitated critical thinking since speech acts helped the students train their reasoning skills. Moreover, the results agreed with Ishihara (2012) who stressed that using critical discussion through negotiating pragmatic meaning promoted critical interpretation. Also, Suryoputro and Suyatno, (2017) as well as Wisudariani and Sriasih (2017) indicated that using pragmatic materials had a central role in learners’ critical thinking development. These materials helped learners discover and use their own analytical abilities through critical review and thus improved students’ ability to think logically and critically.

This result was concurred with the studies of Ishihara (2012), Sanavi and Tarighat (2014), Wang and Liao (2014) and Marin and De la Pava 2017 which indicated that engaging students in discussions helped improve their critical thinking. Also, the results were consistent with the study of Rashid and Qaisar (2017) which asserted that role playing was a productive teaching approach in promoting critical thinking. Also, the study of Tujuba and Woldemariam (2018) recommended using pragmatics along with communicative activities to help students become active classroom participants and think critically and creatively in foreign language.

Moreover, there was a statistically significant difference between the mean scores of the experimental group in the pre- and post-administration of the critical thinking skills test in favor of the post one. One of the advantages of using the implicit teaching of pragmatics in developing critical thinking was that it gave students opportunities to practise critical thinking skills. During pragmatic discussion, students were asked to interpret situation, identify speakers’ attitudes, infer their implicit meaning, analyze the utterances based on questions and evaluate the appropriacy of arguments and utterances to context. Moreover, using dialogues helped students think about the materials they analyze and exchange information with each other.
This study was consistent with the studies of Pradita (2014) and Wisudariani and Sriasih (2017) which proved the positive effect of teaching pragmatic features and using questions on developing critical thinking skills. It was proved that the integration of pragmatic features developed reasoning ability and students’ ability to find out the clues through the sentences. Also using pragmatics helped students discover and use their own analytical abilities as well as develop their ability to think logically and critically. Saputra, Joyoatmojo, Wardani and Sangka (2019) and Wang and Liao (2014) supported the current study; discussion had a positive influence on developing critical thinking. Moreover, this study agreed with some studies such as Atayeva (2019) and Junining (2015) which asserted the positive effect of videos analysis on developing critical thinking skills.

The result that students’ critical thinking skills were higher in the post application could be attributed to the use of pragmatic analysis of the videos which enabled EFL prospective teachers to practise critical thinking skills such as interpreting situations, justifying the use of certain expressions, inferring the implicit meaning behind literal meaning, inferring speakers’ intentions, identifying their prior knowledge and evaluating different perspectives. Moreover, the use of discussion and dialogues enabled them to share ideas, exchange different perspectives, comment on and analyze others’ opinions and share their peers in the reasons for their reasoning. This was consistent with what Vdovina and Gaibisso (2013) suggested as they asserted that when students actively communicate with each other, they are encouraged to apply critical thinking when comparing their views and ideas and when evaluating arguments.

It could be concluded that the use of active cooperative strategies such as brainstorming, role play and think-pair-share enabled EFL prospective teachers foster their critical thinking as they were required to think of answers for questions and discuss these answers with peers and share them with their instructor and peers. Through oral sharing of thoughts, students were exposed to numerous views which would make them compare their thoughts with others, evaluate the appropriacy of thoughts or reconsider one’s opinion if seemed inappropriate. Finally,
using implicit teaching made EFL prospective teachers depend on their thinking to answer questions, analyze situations, negotiate meaning, infer speakers’ implied meaning and evaluate the appropriacy of utterances to speakers and contexts. Thus, this helped them develop their critical thinking.

5. Conclusion

The results of the current study proved that the proposed pragmatic tasks were successful in developing EFL prospective teachers’ critical thinking skills. This was reflected in the post administration of the critical thinking skills test. Using pragmatic discussion and analysis motivated learners to analyze, evaluate and choose utterances appropriate for speakers and context. Moreover, using implicit teaching enabled students to use higher order skills and develop their skill to think critically.

The findings of this study highly appreciated incorporating pragmatics aspects in EFL courses. As using implicit teaching of pragmatics enabled students to practise higher order thinking skills such as interpreting, analyzing, inferring and evaluating utterances, it is recommended to teach pragmatics implicitly to develop students’ critical thinking. Therefore, university professors and instructors are recommended to engage their learners in activities which may increase their level of thinking, enhance their own judgmental power in authentic conversations and enable them to analyze and discover pragmatic features themselves to promote their critical thinking abilities. Furthermore, university professors are advised to use communicative activities when teaching pragmatics to motivate students’ ability to argue, defend an opinion, criticize illogical views and infer what others communicate indirectly.

Furthermore, course designers are advised to recognize the importance of incorporating pragmatic aspects into university courses to develop critical thinking skills. Finally, EFL student teachers as prospective teachers need to be trained on how to use pragmatics to develop their future students’ critical thinking skills. They should be trained on how to use implicit pragmatic teaching to develop critical thinking skills. It is suggested to be teach them how to ask open-ended
critical questions to enable their students to interpret, analyze and evaluate situations. Finally, they are advised to encourage their future students to ask critical questions and evaluate information based on logical reasoning. To sum up, the current study has proven considerable positive effect of pragmatics on developing EFL prospective teachers’ critical thinking. Therefore, the successful use of pragmatics for developing critical thinking necessitates pragmatic awareness for both teachers and learners. It requires careful planning, appropriate choice of pragmatic materials and activities, using critical questions and above all collaboration among all educational practitioners.

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