

Emotional Intelligence - Enhanced Instruction to Develop EFL Students' Critical Reading Skills and Their Attitudes Towards English Learning as a Sustainable Development Process.

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Abstract

The study investigated the impact of Emotional Intelligence (EI) enhanced instruction on developing the critical reading skills of EFL adults and fostering their attitudes towards English learning as a sustainable development process. This is a one group pre/post study. The participants were 50 EFL freshmen at Suez Faculty of Education. The study entailed three instruments: The Schutte's Emotional Intelligence Scale, a pre/post critical reading test and an English learning as a sustainable process attitude scale. Differences in the mean scores of the pre/post critical reading test as well as the pre/post attitude scale of English learning as a sustainable development process were calculated using t-test. The statistical analyses revealed a significant difference in the mean scores of the pre/post test of critical reading as well as the pre/post administration of attitude scale in favor of the post tests. In addition, a positive correlation existed between emotional intelligence and both participants' critical reading skills and their attitudes to learn English as a sustainable development process. It was concluded that participants' critical reading ability and their attitudes to learn English as a sustainable development process were significantly enhanced after receiving emotional intelligence enhanced instruction.

Keywords: Emotional intelligence enhanced instruction, critical reading, learning English as a sustainable development process

Introduction

Being a critical reader in an era when the search, selection, and the creation of knowledge for individual and social development, has become urgent (Par, 2018). EFL learners interact with different information sources and have to choose from various information fields. Therefore, they are demanded to be more critical, question the text, know the author's intent, understand the socio-cultural influences, synthesize, evaluate, interpret, and finally comprehend with a critical eye (Mclaughlin & DeVoogd, 2004; Walz, 2001). Consequently, critical reading skills have gained much attention from researchers and educational practitioners (e.g., El-Sakka, Seif Eddin, El-Hadi & Khodary, 2011, Okeke, 2010, Andrews, 2006) to cope with the expansion of knowledge that requires a critical reader not a stereotyped one. In return, those skeptical and analytical skills should become a part of foreign language learning and teaching (Par, 2018).

The new vision of teaching English as a foreign language focuses on learners' empowerment to be able to create and enjoy a sustainable future

(UNESCO, 2002). Thus, developing learners able to read critically, solve problems and become global citizens in an ever-changing world has become the focus of TEFL. Consequently, TEFL for Sustainable Development challenges teachers to adopt new practices and attitudes that help EFL learners tackle the future, and compete successfully in a globalized work market. Greculescu, Marin and Stoica (2014) maintains that Education for Sustainable Development (ESD) imposes collaborative methods of teaching and learning that help learners change and/or modify their behavior, regulate their affective factors and take action towards sustainable development.

Although critical reading skills are necessary for EFL students, the researcher has noticed that EFL Freshmen in the biology Department suffer from various difficulties in their critical reading skills. At university, English is taught as a foreign language and the teaching of reading includes the teaching of literal, interpretative and critical reading skills. Critical reading refers to reading a passage skeptically and analytically and then judging the value of the information included (Douglas, 2000), yet freshmen are sometimes not ready for the college academic tasks which require their critical reading and thinking, especially in English. Consequently, it is still difficult and it needs great effort and time to train the students to be critical readers as well as build a positive attitude towards it. In an attempt to precisely determine some of critical reading difficulties, the researcher conducted a pilot study on a sample of thirty EFL students at Faculty of Education- Suez University (FoE-SU). A critical reading test, devised by the researcher, were given to the sample. It consisted of two reading passages and 20 multiple choice items (ten for each passage). The results of the pilot study assured that EFL students at FoE-SU encountered difficulties in some critical reading skills such as : finding referents, recognizing bias, developing an argument, differentiating main ideas and sub-ideas. The researcher found that the results of many studies (e.g., El-Sakka, Seif Eddin, El-Hadi & Khodary, 2011; Khodary & AbdAllah, 2014; Zing, Eng & Rafik-Galea, 2014; Zin & Eng, 2014) are in agreement with the results of the pilot study. Such studies revealed that EFL students encounter many challenges in their critical reading skills such as guessing the meaning of words in context , making comparisons, finding relationships, recognizing bias, recognizing contradictions in a text, evaluating the author's point of view ---etc. The reasons for such shortages might be related to the inadequate methods of teaching critical reading (Khodary & AbdAllah, 2014) as well as neglecting the emotional variable of learning.

Since the general mission and vision of universities in Egypt is the cognitive as well as the psychological development of the learners, and hence seeing language learning as emotionally driven; the predictive validity of Emotional Intelligence-enhanced instruction in EFL contexts has gained much attention (Dörnyei, 2005; MacIntyre, MacKinnon, & Clément, 2009; Imai, 2010; López, 2011). Some scholars called for the development of affective factors as one of the intended learning objectives of studying at universities (Seal, Naumann, Scott, & Royce-Davis, 2010). Emotions determine human processes most of the time. Since critical reading is also a process, it is affected by how learners feel towards the knowledge to be acquired. This means that positive emotions from language learners lead them to successful language learning. Having this aspect in mind, the researcher assumed that learning how to manage, measure and control emotions would likely enhance critical reading, and allow students to face different academic scenarios which may be challenging for them.

The potential of English language learning at university level should not be limited to developing key language skills but rather fully exploited by integrating the Sustainable Development principles. Thus, according to the United Nations Goals of Sustainable Development, all learners should learn the knowledge and acquire the skills necessary for promoting sustainable development (O’Flaherty & Liddy, 2017). Therefore, the importance of this study lies in the empirically probable impact of EI-enhanced instruction on the development of EFL students’ critical reading skills and their attitudes to learn English as a sustainable development process.

Problem of the study

EFL students at Suez Faculty of Education encounter low levels of critical reading skills and unclear attitudes towards English learning as a sustainable development process. Therefore, this study aimed to enhance their critical reading skills as well as foster their positive attitudes towards learning English as a sustainable development process through Emotional Intelligence (EI) enhanced instruction.

Thus, this study sought to find answers to the following questions:

1. What is the effect of Emotional Intelligence (EI) enhanced instruction on the critical reading skills of EFL students?
2. What is the effect of EI- enhanced instruction on EFL students’ attitudes to learn English as a sustainable development process?

Significance

1. The present research adds to the knowledge about the importance of EI-enhancement and its empirical effects on English education in general.
2. It provides curriculum designers with an empirical evidence to blend emotional intelligence based tasks in textbook materials in order to enhance critical reading skills.
3. It provides English teachers and staff with the significant importance of emotional intelligence based instruction in raising students' awareness of English learning as a sustainable development process.
4. It provides curriculum designers as well as teachers with practical implementation scheme for integrating sustainable development principles with English language curriculum.
5. It provides students with more socio-affective strategies like cooperative learning and students' questioning for clarifications and managing one's emotions in the class while learning English.
6. It emphasizes the urgent need of infusing sustainable development principles into English education in a coherent way rather than adding it as an individual subject in order to meet the goals of 2030 educational agenda.

Literature Review

Nowadays English learning aims to engage students in the learning/teaching process and make learning more effective by using strategies that transform students' perception of learning from something they must do into something they desire and enjoy doing (Restrepo & Aristizabal, 2017). Hence, learning English is emotionally driven; EI enhanced instruction as a humanistic approach to teach English has recently gained much attention in EFL contexts (Abdolrezaipoor, 2013).

Emotional Intelligence and its main tool, the Emotional Quotient (EQ), were developed in the 1970s and 80s but it became popular in the mid-90s by Daniel Goleman. From that time on, students' affective components in the teaching/learning process gained much attention.

In 1995, Goleman defined EI as the capabilities that include self-control, zeal, and persistence beside the ability to motivate oneself. He further assured that emotional intelligence is a more powerful factor than Intelligence Quotient (IQ) in different paths of life (P.28).

Additionally, in his dictionary of psychology, Coleman (2008) states that Emotional Intelligence is the ability to understand one's emotions as well as the others', to differentiate among various feelings, to define them accurately, to use emotional knowledge to guide behavior and thinking, and finally to manage and/or adjust emotions to suit environment and achieve one's goals.

Rationale

Since college mission statements emphasize the empowerment of both cognitive and non-cognitive factors of learners and making them ready to live in an ever changing world (Feldmann, Aper, & Meredith, 2011), emotional intelligence has become an important factor in contemporary English language classrooms. In other words, one of the dominant contemporary teaching paradigms in many language teaching contexts is communicative language teaching (CLT) which is highly social, interactional and interpersonal in nature. Thus, it focuses on the interpersonal skills of both teachers and learners (Gkonou & Mercer, 2017). Since TEFL involves some form of communication, interpersonal interaction and possibly some kind of co-operative working structures, it emphasizes the need for emotionally competent learners as well as teachers (Gkonou & Mercer, 2017). Accordingly, activities used in the EFL classrooms should constantly challenge students' emotional intelligence in order to transform EFL learners from learners studying for the exams to lifelong learners (Hazzlewood in Honoré, 2008); capable of meeting the sustainable development challenges. In other words, by raising EFL learners' awareness of their feelings towards sustainable development principles and by placing them into the comfort learning zone of learners, they will be provided with a tool to face the challenges of their future learning as well as future life. By introducing EFL learners to the UN Global Goals of Sustainable Development as a part of their English language lessons, teachers integrate a more holistic, personalized approach into classroom practices.

Additionally, EFL learners need intercultural skills for navigating not only the challenges of their societies but also for meeting the competitive environment of a multicultural world beyond the classroom (Matsumoto et al., 2007; Spencer- Oatey & Franklin, 2009). Here, Emotional Intelligence appears again as a humanistic approach, helping learners develop and maintain rapport and show empathy for the principles of sustainable development.

Pishghadam, Adamson and Shayesteh (2013) introduced a new approach to foreign language education called Emotion Based Language Instruction (EBLI). That approach is based on nurturing learners' emotions in the educational process in order to foster positive reactions to the instructional materials as well as facilitate learning. Accordingly, Riemer (2003), Meng and Wang (2006) argue that EQ improves English language performance that could be enhanced by positive emotions. Similarly, having stronger emotions toward English language learning as a sustainable development process raises awareness of global issues and empowers learners with language to talk about such issues confidently. It also develops critical reading and problem-solving skills, fosters tolerance and respect for others' views, encourages responsibility towards meeting the Global Goals by working together, thinking out of the box and coming up with creative ideas and solutions (Read, 2017).

Components of Emotional Quotient

Salovey and Mayer (1990) propose a model to identify the different factors of the Emotional Quotient. According to them, these factors are:

1. **Perceiving emotions.** It is the initial factor by which a person needs to label and recognize emotions in order to be consciously aware of them. Salovey and Mayer (1990) argue that each emotion conveys a set of identifiable signals that communicate information about the value that an individual gives to a stimulus. In relation with this, it is interesting to notice that there exist verbal and nonverbal emotional signs; some of them are universal, for instance expressions for sadness, happiness or fear.
2. **Reasoning with emotions.** It means the use of emotions to promote thinking and cognitive activity, to pay attention, to react and respond to things that captivate our attention. Salovey and Mayer (1990) point out that a good system of emotional input will lead a person to direct their thinking to any matter. It is not the same trying to learn something with a negative mood towards it or feeling forced than having the desire to do it.
3. **Understanding emotions.** This aspect allows the person to interpret the emotion and give a suitable meaning to it. Salovey and Mayer (1990) show that emotions convey information of what people desire to do, for instance happiness usually indicates a desire to join with people and share while anger directs individuals to attack or hurt others. Each emotion carries a message associated with an action; understand emotions and its messages is an important aspect to have efficient decision making.

4. **Managing emotions.** This aspect suggests controlling and regulating emotions in response to a stimulus. Salovey and Mayer (1990) affirm that emotions can be managed, for this reason a person first needs to perceive, second understand and finally reason with the emotion in order to have voluntary control over it. Thus, it becomes possible to regulate and manage our own emotions and those of others to promote academic goals.

These previously mentioned factors represent what an individual must develop in terms of recognizing and understanding emotions in order to respond appropriately to the stimulus of the environment. English language learning classrooms represent the suitable scenario where foreign language learning takes place as a stimulus for students. English Language Education is a prime ingredient of sustainable development as it challenges the present situation and establishes new ways of thinking and behavior because sustainable development centers around three principles: Engagement, Empowerment and Ownership.

Emotional Intelligence and Critical Reading Skills

Reading in general and critical reading in particular is seen as a social process (Par, 2018) that actively involves readers in order to think deeply about the text to reveal and reconstruct its meaning. Thus, critical reading, in an era where the number of available reading texts is increasing, has gained much attention from educators and researchers (Sultan, Rofiuddin, Nurhadi, & Prihatni, 2017). In such an era when retrieving information whether printed or electronic becomes easy, an EFL reader needs to question the accurateness of such information that cannot easily be trusted. Critical reading skills make students able to analyze what they are reading then synthesize it and finally evaluate what is read (Alqatanani, 2017). They also help students to think critically; analyze the cause and effect, compare ideas and be aware of reasons of reading (AbdKadir, Nsubki, Haneem, Ismail, 2014). Therefore, learners with highly developed emotional intelligence own the critical eye that helps them be less defensive and more open to criticize (Esmaeeli, Sabet and Shahabi, 2018), then continue to evaluate the credibility of the information (Wallace, 2003). Being critical means responding to the text and the author, consciously accepting or rejecting the author's assertions, asking questions, and applying what is read to what is known and believed in (Highered, 2010). In conclusion, critical reading is an activity of reading that applies the concept of critical thinking where readers read the texts using an analytical process, and hopefully respond to the writers' position depending on their previous knowledge of the issue of the text (Lestari, 2015).

In view of the above, Emotional Intelligence (EI) has empirical positive effects on critical reading skills because it affects learners' critical thinking abilities, and in turn, helping them to be critical citizens and critical readers (Par, 2018).

Ebrahimi, Khoshsima, & Zare-Behtash (2018) examined the effect of Emotional Intelligence on reading skills. For one year, the participants were instructed on reading skills as well as EI development. Then, differences between emotional intelligence scale's mean scores and IELTS test were statistically investigated. The findings revealed that Emotional Intelligence development has possible empirical effect(s) on students reading skills. The same findings were encountered by Majidi Dehkordi and Shirani Bidabadi (2015) who explored the relationship between EI of Iranian EFL learners and their reading strategy use. The results showed a high level use of cognitive and meta-cognitive strategies by the high emotionally intelligent group while a low level use of cognitive and meta-cognitive strategies was observed for the low emotionally intelligent participants.

Similarly, Vahdat and Khavandgaran (2013) investigated the effect of emotional intelligence on Iranian EFL students' reading comprehension. A significant relationship was found between both variables. The findings of this study agree with Abdolrezapour and Tavakoli's (2012) study that revealed a significant relationship between the reading skills of Iranian EFL learners and their Emotional Intelligence.

Adding to above, Motallebzadeh (2012) studied the relationship between EQ, structural ability of language learners and reading comprehension. 170 out of 250 intermediate EFL learners were exposed to Bar-On Emotional Quotient Inventory (EQ-i, 1997). There was found a strong significant relationship among EI, the structural ability of the participants, and their reading comprehension.

Study Hypotheses

The present study entails four hypotheses as follows:

1. A statistically significant difference ($\alpha \leq 0.05$) would exist in the mean scores of the EFL students on the pre/post critical reading test.
2. A statistically significant difference ($\alpha \leq 0.05$) would exist in the mean scores of the EFL seniors on the pre and post administration of attitudinal scale of English learning as a sustainable development process.

3. There is a significant correlation between EFL students' emotional intelligence and their critical reading skills.
4. There is a significant correlation between EFL students' emotional intelligence and their attitudes to learn English as a sustainable development process.

Methodology

Design

The one group pre/post design is utilized in the present study to investigate the effect of emotional intelligence enhanced instruction on the critical reading as well as participants' attitudes towards learning English as a sustainable development process. The experiment was implemented during the 2018-2019 school year. During the experiment, the participants were taught critical reading skills using emotional intelligence (EI) enhanced instruction.

Participants

The sample of the study consisted of 50 EFL freshmen university students at Suez Faculty of Education. They had almost the same English proficiency level based on their scores in the 'Interchange Placement Test' administered by the researcher at the beginning of the study. The ages of participants were between 17 and 20. They have been studying English as a foreign language for almost 12 years.

Instruments

The study entailed three main instruments: A pre/post critical reading test, and the English language learning as a sustainable development process attitude scale (designed by the researcher) and finally the Schutte's Emotional Intelligence Scale (Schutte et al, 1998). For measuring the critical reading skills of the participants before and after the experiment, a critical reading test in the form of multiple-choice questions was devised by the researcher. The items of the test were adapted from the book of *Mastering The SAT Critical Reading Test* by Davenport (2007). The devised test was designed to measure the following ten critical reading sub-skills: identify the main idea, guess the meaning of words in context , form justified opinions, , make comparisons, recognize bias, make inferences, identify cause and effect relationships, recognize contradictions in a text, evaluate arguments and draw conclusions. The test items were initially tried out to examine the validity and reliability. The result of the piloted test revealed a Cronbach's coefficient alpha value of 0.81. To achieve test validity, a jury of 8 TEFL experts validated the test's components. Their suggestions and recommendations were put into consideration.

As for the English as a sustainable development attitude scale, it was devised by the researcher aiming at measuring the attitudes of 50 EFL freshmen towards learning English as a sustainable development process. It was developed after an extensive review of related literature; relevant questionnaires that measured attitudes, beliefs, and interest toward sustainable development. The developed questionnaire items focused on sustainable development and its relationship to English learning (learning English to exist, to communicate in a sustainable way, to know, to do, to develop oneself and society). A jury of experts was asked to review items and to determine ease of understanding, formulation of items, and conceptual validity. The reliability coefficient using Cronbach's alpha yielded 0.91. As for the scale's validity, confirmatory factor analysis was performed. Accordingly, it was found that the scale possessed the qualifications to measure the participants' attitudes towards English learning as a sustainable development process. The scale consists of two parts. The first part obtained demographic information about the respondents including: (1) age (2) grade level (3) gender. The second part obtained information about students' attitudes towards English learning as a sustainable development process rated on a Likert-type scale which varied from strongly agree to strongly disagree. Each item's score ranged from 1 to 5 then summed up to produce a total score. High total scores indicate stronger attitude towards English learning as a sustainable development process.

To measure the general emotional intelligence of the participants, The Schutte's Emotional Intelligence Scale (Schutte et al., 1998) was used. The researcher chose it as an EI measure because it measures typical EI, is closely related to the EQ-I Emotional Intelligence model utilized in the current research as well as it is reliable enough for adults. This scale is a self-report inventory including thirty three items divided into four sub-scales. The scale is based on the Salovey and Mayer (1990) model of Emotional Intelligence: emotion perception, utilizing emotions, regulating one's emotions, and finally managing others' emotions. As for emotion perception sub-scale, items included are NO. 5,9,15,18,19, 22, 25, 29, 32,and 33. Utilizing emotions consists of item NO. 6, 7, 8,17, 20, and 27. Regulating emotions and managing others' emotions include items no. 2, 3, 10, 12, 14, 21, 23, 28, 31 and numbers 1, 4, 11, 13, 16, 24, 26, 30, respectively. The score for each item ranges from 1 to strongly agree to 5 to strongly disagree. Each sub-scale score was graded and summed together to introduce the total mark of each participant. The higher scores indicate higher characteristic emotional intelligence. The

internal consistency of the scale by Cronbach's alpha was found to be 0.90 (Schatte et al., 1998).

Materials of the study

Combining English learning with content instruction is not a new idea. Therefore, learning to use language in achieving goals is rather more important than simply learning about the language (Tennant, 2017). The main material of the study was ten reading texts revolving around topics of future challenges (global warming, obesity, climate change, equality and discrimination, sanitation, clean water and energy). The researcher designed activities and tasks that raise students' awareness of sustainable development and get them to think of solutions to some practical problems. Such tasks and activities help develop critical reading, collaboration, and creativity.

Procedures

The experiment was implemented in Faculty of Education- Suez University (FoE-SU) during the first semester of 2017-2018 academic year.

The experiment followed four main steps: pretesting, orientation, intervention and post testing

1. Pretesting

At the beginning of the study, the researcher administered The Schutte's Emotional Intelligence Scale (Schutte et al, 1998), the pre/post critical reading test, and the English Language learning as a sustainable development process attitude scale (developed by the researcher) to all the participants.

2. Orientation

Before starting the instructional sessions, participants were given two orientation sessions about emotional intelligence, EQ, what it is and how they can make a change through applying it to learning English. They were made familiar with the activities they would do to develop their EI and the advantages of EI to make them more willing to participate in the study.

3. The Intervention

The importance of the instructional design of the study lies on the procedure to plan English classes using Emotional Intelligence (EI) to improve the participants' critical reading skills and foster their attitudes to learn English as a sustainable development process. Emotional Intelligence was applied in English classes to develop participants' critical reading skills in terms of behavior, knowledge, attitudes, personal and social interactions through the use of reading materials related to students' interests and needs.

The activities were planned in such a way that required the students to lower their affective filter to perform specific tasks, for example to regulate their emotions during evaluating the reading text, to be aware of their emotions while presenting solutions to the problems tackled in the reading texts, to control their emotions while deducing the reasons as well as the results of such problems.

The intervention was carried out along 12 sessions, one session per week (90 minutes a session). It aimed to teach how to recognize, understand, manage or control emotions to promote positive feelings towards learning English as a sustainable development process.

After being oriented on Emotional Intelligence (EI) for two complete lectures, the researcher taught English to the participants during the first term of 2017-2018 academic year. In teaching EFL to students, the researcher used reading texts that entailed topics related to the principles of sustainable development such as global warming, obesity, climate change, equality and discrimination, clean water, sanitation and energy. Through reading about such topics and designing activities that help learners know their emotions towards those topics as well as regulating their emotions to suggest solutions concerning such topics, the researchers aimed to create an emotional state towards such topics and helped participants monitor their emotions as well as their classmates' emotions towards such topics in order to play positive roles towards such problems. Thus, the researchers followed the following steps (adapted from Salovey and Mayer (1990)'s emotional quotient) to tackle the reading passages and respond towards them:

- 1. Emotional awareness:** Through expression of their emotions towards the reading topics as well as others' emotions. Different types of activities are utilized to improve participants' emotional self awareness and foster better understanding of self. These activities included vocabulary related to feelings and emotions, role plays and dialogues. Other activities included descriptions and debates or talks where participants expressed their point of view on the sustainable development issues.
- 2. Reasoning with emotions:** Use of emotions to facilitate their thinking about the topic and how it can be handled. The researcher had included activities designed to get participants think of solutions to some practical problems, as well as engage them in tasks that require creativity and collaboration.
- 3. Regulating emotions:** The building of positive attitudes towards the topics of the reading passages in order to accept the topic and

participate in finding solutions to the problem. Various activities were used to contribute to the development of participants' emotional self-regulation. Among them, task based activities and problem solving activities as well as group work and pair work that facilitated participants' engagement in certain tasks and assuming roles. Such tasks engaged the participants in meaningful situations requiring practical solutions and cooperation with other group members.

The reading passages were chosen based on sustainable development issues.

The activities followed were specifically designed to develop participants' skills regarding self-awareness and control, social expertness, empathy, mastery of vision, personal influence and more towards the topics of sustainable development.

4. Posttesting

After finishing all the instructional sessions, The Schutte's Emotional Intelligence Scale (Schutte et al, 1998), the critical reading pre/post test as well as English learning as a sustainable development process attitude scale (devised by the researcher) were administered to the participants. The difference in the mean scores between the pre and post tests were calculated using paired samples t-test.

Results and discussion

The results of the statistical analyses were depicted in the following tables:

Table 1. Critical Reading Test's Descriptive Statistics

Test	Mean	SD
Pre	6.3200	2.540
Post	20.560	2.000

Table 2. Descriptive statistics for English learning as a sustainable development process scale

Scale administration	Mean	SD
Pre	5.032	1.940
Post	15.060	2.000

From the above displayed tables, it can be noticed that means of scores on critical reading pre-test are less than those on post-test. Also, the mean scores on the first administration of the English Learning as a Sustainable Development Process Scale (ELSDPS) (devised by the researcher) are less than the second administration.

In order to measure the significance of such differences paired samples t-test was used.

Table 3. T-test (Paired samples) for the differences in the pre/post test of critical reading

Critical reading	Mean	Standard Deviation	df	t-value	Significance
Pre/post	8.620	1.361	49	20.88	0.000*

*Significant at 0.05

As shown in table 3, the t-test revealed a significant difference in the participants' mean scores between the pre and post test of critical reading ($t=20.88$, $p\leq 0.05$). This result indicated that participants' critical reading skills were significantly enhanced during the period of the experiment. Therefore, it was concluded that emotional intelligence enhanced instruction significantly developed the critical reading skills of the participants. In order to measure the size of the practical effect caused by EI enhanced instruction on the critical reading of the participants, the effect size was calculated using Eita Square (d). A large effect size revolves around a range of means of 8 or more, a medium effect entails a range of 5 till 7.99, and a small effect includes a range of 2 till 4.99 (Fedlt, cited in Hinkle, Wiersma, and Jurs, 1994, p. 316). Since $d = 8.43$ ($d \geq 8$), then it was concluded that the EI enhanced instruction yielded a large and substantial effect size on critical reading skills. That finding was in agreement with the results of previous studies of El-Sakka (2019), Ebrahimi, Khoshsima, & Zare-Behtash (2018), Vahdat and Khavandgaran (2013), Abdolrezapour and Tavakoli (2012) that proved emotional intelligence enhancement has possible empirically based effect(s) on students' reading skills in general and critical reading on particular.

That result can be attributed to many reasons. The first reason is that using emotionally enhanced instruction encouraged participants to read critically, explore and ask questions, and clearly state their emotions and reasons on the values of reading critically, decision-making and participation. When participants were aware of their emotions and how to control them, they became rationally critical readers. They did not permit their emotions and feelings affect their analysis of issues and decision making process. Emotional intelligence enhanced instruction helped participants successfully apply sound judgment and reasoning to the reading texts. With emotionally enhanced instruction, participants had high levels of self-esteem and self-regulation thus they were more engaged in critical reading and problem-solving activities. Consequently,

they were able to cooperate with each other (Bora, 2012). When participants become able to recognize, manage, and evaluate their emotions, they become more capable in their critical reading skills. Another new reason is related to flexibility and social responsibility. They are among the components of emotional intelligence-based instruction (Ghanizadeh & Moafian, 2011). Flexibility and social responsibility raised the participants' abilities to read critically, feel confident in making decisions and bearing the responsibility of such decisions. Assertiveness as one of Emotional intelligence based instruction's components can be an additional reason of such a result. The assertive participants would always challenge the reading texts and ask more questions while reading texts (Afshar & Rahimi, 2014). They test realities and read critically most of the time. Finally, the relaxed, stress-free and anxiety free atmosphere that accompany the emotional intelligence based instruction may be an additional reason behind the perceived result. When participants learned how to control their stress and anxiety, their performance in critical reading improved and become more capable of analyzing texts, thinking freely and taking the right decisions concerning the reading texts.

In order to measure the significance of the differences in the mean scores of the pre/post administration of learning English as a sustainable development process scale, paired samples t-test was used as follows:

Table 4. Paired samples t-test for the differences in the pre/post administration of learning English as a sustainable development process scale

Scale	Mean	Standard Deviation	df	t-value	Significance
Pre/post	8.0 22	1.541	49	19.40	0.000*

*Significant at 0.05

In table 4, the t-test (paired samples) revealed a significant difference in the participants' mean scores of the pre and post administration of the scale of learning English as a sustainable development process ($t=19.40$, $p\leq 0.05$). This result indicated that participants' attitude to learn English as a sustainable development process improved after the intervention. Therefore, it was concluded that emotional intelligence enhanced instruction significantly developed participants' attitudes to learn English as a sustainable development. In order to measure the size of the practical effect caused by EI enhanced instruction on the participants' attitude towards learning English as a sustainable development process, the effect size was calculated using Eita Square (d). Since $d = 7.73$, then it was concluded that the EI enhanced

instruction revealed a large effect size on the participants' attitudes to learn English as a sustainable development.

That result may be attributed to many reasons. The first reason may be related to the emotional intelligence based instruction the participants received. Hence English as a foreign language is the major medium of international knowledge sharing, thus learning English as a sustainable development process helped participants be more successful in meeting challenges and pressures based upon them. Emotional intelligence helped participants effectively understand themselves, relate well to others, and cope with the immediate surroundings. Designing emotionally based activities to raise students' recognition and get them thinking of practical solutions to problems, as well as engaging them in creative and collaborative tasks may be another reason for building a positive attitude towards learning English as a sustainable development process. Helping participants to understand that sustainable development issues are important, but raising positive emotions towards it is rather more important. Giving students the opportunity to put solutions to and meet challenges of the future can positively foster their attitudes to learn English as a sustainable development process. To conclude, learning English as a foreign language helps to shift learning patterns from a local to a global scale and could possibly broaden students' perspectives on the issues of sustainability in other countries (Petkutė, 2012). In view of the above, it is concluded that English education is viewed as an empowerment tool that can help EFL students achieve sustainability and make important judgments and choices.

EI-Enhanced instruction developed the participants' critical reading skills and improved their attitudes toward learning English as a sustainable development process. Consequently, the first and the second hypotheses were accepted.

Table 5. Pearson correlation between emotional intelligence and Critical reading

	N	DF	Pearson (r)	Sig.
Emotional intelligence	50	49	0.650**	0.000
Critical Reading	50			

****.** Correlation is significant at 0.05 level (2-tailed).

As shown in table 5, the results of the correlation ($r = 0.650$, $p = 0.000$) indicated a statistically significant relationship between emotional intelligence and critical reading. In other words, Participants' EQ positively correlates with their critical reading skills. Therefore,

developing emotional intelligence improves students' critical reading skills. Accordingly, the third hypothesis was accepted.

Table 6. Pearson correlation between emotional intelligence and learning English as a sustainable development process scale

	N	DF	Pearson (r)	Sig.
Emotional intelligence	50	49	0.753**	0.000
learning English as a sustainable development process scale	50			

****.** Correlation is significant at 0.05 level (2-tailed).

As shown in table 6, the findings of the Pearson correlation ($r = 0.753$, $p = 0.000$) revealed a significant relationship between emotional intelligence and learning English as a sustainable development process attitude scale. Raising students' EQ improves their attitudes to learn English as a sustainable development process. Thus the fourth hypothesis was accepted.

Conclusion

In view of the previous results as well as the study's delimitations, it was concluded that emotional intelligence enhanced instruction was effective in developing the critical reading skills of Egyptian EFL adults and raising their attitudes to learn English as a sustainable development process. EI- enhanced instruction is a new vision of English education that pays special attention to affective issues (Edutopia, 2001) and makes noticeable improvement in English learning outcomes. Additionally, a strong significant correlation was found between emotional intelligence and critical reading skills on the one hand and participants' attitudes towards learning English as a sustainable development process on the other hand. Consequently, the result of the study adds a new dimension to the growing body of research regarding the positive effect of the emotional intelligence on improving the critical reading of EFL university students and developing their attitudes to learn English as a sustainable development process.

Pedagogical Implications

In light of the results, the following pedagogical implications are recommended:

1. EQ should be taken into consideration in EFL classes.
2. Emotional Intelligence enhanced instruction should be made part of the critical reading courses at university level.

3. University teachers should encourage their students to be aware of their emotions and regulate them during learning.
4. English Education as a sustainable development process should be included in the EFL curriculum at the university level.

Suggestions for Further Research

Moreover, the necessity of doing research in the following areas is apparent to determine:

1. the impact of emotional intelligence enhanced instruction on lowering the affective filter of EFL students.
2. ways towards an empirical application of the principles of sustainable development education in teaching English as a foreign language.
3. The predictive validity of EQ on the writing performance of EFL students.
4. EQ as a predictor of speaking and listening skills of EFL students.

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