



Ain Shams University
Faculty of Education
Curriculum & Instruction Department

Developing EFL Adult Learners' Critical Thinking through a Program based on an E-community Context

A Thesis

**Submitted in a Partial Fulfillment for the Requirements of M.A. Degree in
Education**

Curricula Department (TEFL Major)

Prepared by

Ahmed Gamal Mohamed Abd El-Glil

Flight Attendant

Supervised by

Prof. Asmaa Ghanem Gheith

A Professor of Curricula
And instruction (TEFL)
Director, (CDELT)
Ain Shams University

Prof. Moustafa Abdul Khalek Mohamed

A Professor Emeritus,
Educational Technology,
Faculty of Education,
Tanta University

Cairo 2021

Research title: Developing EFL adult learners' critical thinking through a program based on an e-community context

Author: Ahmed Gamal Mohamed Abd El-Glil

Advisors: Prof. Asmaa Ghanem Gheith, Professor of Curriculum and Instruction (EFL), Faculty of Education, Ain Shams University.

Prof. Mostafa Abdul Khalek Mohamed, Professor Emeritus, Educational Technology, Faculty of Education, Tanta University.

Source: Faculty of Education, Ain Shams University, 2021.

Abstract

The study aimed to design a program based on an e-community context to develop adult EFL learners' critical thinking. The study started with a review of the literature and previous studies related to critical thinking, its components, and e-communities where the study took place. The researcher designed the study instruments, including a pre-post critical thinking test, and a rubric. The researcher designed the proposed program for developing adult EFL learners' critical thinking. A group of voluntary adult Egyptian EFL learners (n=20) participated in the study. They studied eight online-based sessions, including the pre-post tests. Learners' scores on the pre and post-tests were statistically analyzed using the t-test, and the effect size. Besides, a qualitative analysis of the students' performance and satisfaction was conducted. Both quantitative and qualitative analyses revealed that the proposed program based on an e-community context was effective in developing adults' EFL critical thinking.

Keywords: e-community, critical thinking, adult learners, Egypt EFL learners.

Acknowledgments

“Praise be to Allah, Who guided us to this, and in no way could we have been guided unless Allah has guided us.”

I would like to extend my great appreciation to **Prof. Asmaa Ghanem Gheith**, Professor Emerita of Curriculum and Instruction, Faculty of Education, Ain Shams University, for the constant guidance and encouragement I received from her throughout the study preparation. Prof. Gheith spared no effort to assist me whenever I ran into a problem or had a question. I also want to express my sincere gratitude to Prof. Gheith for her constructive and valuable suggestions. Her time, effort, and guidance throughout the study are highly appreciated.

I would also like to thank **Prof. Moustafa Abdul Khalek Mohamed**, Professor Emeritus, Educational Technology, the Faculty of Education, Tanta University, for his insightful academic support throughout the study. His informative recommendations helped me a lot in improving my work. I much appreciate his thoughtful guidance and valuable opinion.

My sincere appreciation is extended to **Prof. Zeinab El-Naggar**, Professor Emerita of Curriculum & EFL Instruction, Faculty of Education, Ain Shams University, and Dr. **Amira El-Amir Khater**, Associate Professor of TEFL, Faculty of Girls, Ain Shams University for accepting to be part of the defense committee and evaluating my study. I deeply thank them for their time and effort.

My sincere gratitude goes to all my beloved family members for their endless encouragement and support. Special thanks go to my father, **Prof. Gamal Abd El Glil**, Professor of Civil Engineering, Faculty of Engineering, Banha University, my mother, **Mona Ghareb**, and my brother, **Amr**. Their devoted support always guides me in my life. I am also very grateful to my lovely wife,

Eitedal Hossam Al-Din, for her patience, understanding, support, encouragement, and love. Her belief in me always fills me with hope and gives me the motive to carry on. I want to thank my beautiful daughter, **Judy**, whose love has urged me to keep on.

Finally, I would like to dedicate this thesis to my beloved grandparents, **Ghareb Al-Baddaly** and **Ragga Abdul Khalek**, who passed away before seeing this day. They have spared no effort to help me throughout my life. Their favor will never be forgotten.

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Chapter One

Background and Problem

Chapter One

Background and Problem

1.1. Introduction

In a rapidly changing world, e-learning and critical thinking (CT) have been given a great interest in adult education. Traditional classes are no longer the only place for learning. Old teaching strategies that depend on recalling and memorization are no longer effective in the age of open space. Now learners can receive degrees without the need to visit a school or a college regularly. They can proceed in learning at home or in their workplace through virtual platforms such as educational websites and android applications. Many virtual platforms have proved their effectiveness in educating people, such as Khan Academy, Coursera, Udemy, and Cambly. Through these platforms, learners have the freedom to choose among thousands of topics and fields to read about and learn.

At the same time, critical thinking is an essential component of adult education; many scholars link critical thinking to adult education. Moore (2010) believes that adult learning is a unique phenomenon that requires supporting processes to make it successful. He also confirms that CT is one of the required outcomes that co-exist with adult learning to enhance the entire learning process.

The critical thinking gap is one of the most significant challenges in education today. According to Seale (2020), CT is a set of skills including reasoning, analyzing, and displaying the healthy sense of skepticism needed to seek evidence. He also believes that there is a rising urge in the 21st century to fill the CT gap through unusual contexts such as e-communities. Therefore, CT should be prioritized by systems leaders and implemented in online learning, especially during natural disasters and pandemics. This implementation will help adult EFL learners develop professionally, socially, and culturally.

Wagner (2008) included CT as one of seven survivor skills required to be successful in the workplace in the 21st century. Besides, CT involves reasoning in a goal-oriented fashion (Halpern, 2003); (Moseley et al.,2005); (Sternberg, Roediger, & Halpern, 2007). Similarly, Paul and Elder (2007) described CT as the art of analyzing and evaluating thinking to improve it. In this regard, CT has become an essential component of adults' lives to reach their life goals and grow professionally. Also, Hendricson et al. (2006) state that adult EFL learners need to acquire higher CT abilities such as; pattern recognition, ability to think ahead, and anticipate outcomes and problems. Also, it is preferable to learn how to retrieve knowledge quickly, maintain personal composure so that emotions do not hinder decision making. Besides, CT is required to make confident decisions, even when conditions are unclear, and outcomes are uncertain. By learning these skills, adult learners will be able to develop from being novices to experts.

Furthermore, CT helps adult learners face modern challenges, support their families, shift their careers, and get developed professionally. Most working adult learners do not have enough time to enroll in regular educational courses. So, they resort to using accessible resources such as the internet. However, they lack further critical thinking development.

Due to technological development and social media use, the idea of forming online communities has emerged. Wenger (2010) states that e-communities can be viewed as social learning systems; therefore, they can be easily implemented in adult EFL learning. When a particular group is created on Facebook, for instance, it is obvious what domain it addresses (i.e. a group of English language adult learners), who the members are, and whether membership is obtained through applying or whether it is open to anyone to join, and finally, how the group will use the affordances of the platform to share materials, ideas, and generate knowledge within the e-community.

The present study aimed at measuring the effect of using a program based on an e-community context to develop EFL adult learners' critical thinking. So strategies based on data analysis, decision-making, raising questions, and argumentations were implemented in the study to fill in this gap.

1.2. Context of the Problem

Most Egyptian schools and universities lack programs that focus on developing critical thinking. Thus, many EFL adult learners lack the required CT skills that can be applied in their study, work, and life. This gap in CT implementation is obvious in most educational programs and curricula. The main focus is on the theoretical side and retrieving knowledge. Consequently, EFL learners struggle when they come across thinking questions and challenges. Hence, this lack of thinking should be treated in EFL courses.

As an English instructor and trainer, the researcher noticed the poor level of adult learners' CT skills. When they are given indirect questions that require practicing CT, they usually get confused and struggle to analyze data to solve a given problem or to suggest solutions. Most of adult EFL learner also report that they are not familiarized with this type of questions that require analyzing, getting the main idea of a passage or making inferences based on given data. They also say that it is easier for them to answer direct questions that require clear answers from the given text. They cannot think critically, suggest alternatives, or even collect relevant data on a specific topic.

On the same side, the researcher also observed that most EFL learners never learned through virtual contexts as EFL learning in Egypt mainly takes place in regular face-to-face contexts, which may not provide current contexts used in the 21st century where language is taking place. Many EFL adult learners reported that

they never had the chance to study online. However, they were eager to go through the experience and use technology in developing their English. Most of them believe that learning through e-communities would be a better alternative to face-to-face learning as this would save them time and money. Hence, it can be inferred that there is an urge for most adult EFL learners to develop their language using CT strategies through e-community contexts. Several studies support this conclusion:

ElSayed (2017) stated that the use of Facebook and new technologies allows better opportunities for learning. She also assured the importance of stimulating EFL learners' critical thinking as teaching thinking plays an effective role in developing English. However, most adult learners reported that they have never been exposed to programs based on e-communities or CT.

Moustafa (2009) stated that CT is not given enough attention in education in Egypt. As a result, teachers are not ready to practice new trends in teaching CT as they are not trained on how to teach CT. Moreover, most students focus on recalling and memorizing information rather than processing and thinking critically.

To conclude, the researcher suggests that a program based on e-community contexts can be effective in developing adult EFL CT. Based on his observation and interaction with a number of adult EFL learners; he believes that there is a need to teach and develop CT in schools and universities.

1.3. Pilot Study

The researcher conducted a pilot study using a test on a group of adult EFL learners (n=20) to assess their CT abilities and to investigate their prior knowledge. Results proved that most of these learners misunderstood CT and lacked essential subskills of thinking. The test measured the skills of identifying elements of a

problem or topic, data analysis, gathering data, identifying central arguments, providing evidence, and providing alternatives (Appendix A). Results showed a significant lack of learners' CT abilities as follows:

- 90% of the participants knew nothing about critical thinking. They had difficulty to think critically or to solve a problem.
- 87% of the participants could not identify the main elements of the given problems. They focused on minor details rather than spotting the main elements.
- 94% of the participants could not analyze data to solve problems.
- 88% of the participants found difficulty in gathering the required data regarding a particular topic or problem.
- 96% of the participants did not know what a central argument is. So, they could not identify it easily.
- 85% of the participants could not provide strong evidence to support their arguments.
- 82% of the participants showed difficulty in providing genuine alternatives to solve a given problem.
- Most of the participants reported that they prefer online-based learning, as it is easier to access anytime. However, they showed weak knowledge about critical thinking and its components.

Based on the results of the previous pilot study, it was clear that adult learners almost lack the minimum critical thinking components. At the end of the pilot test, the researcher had a discussion with the same group to identify the reasons behind this weakness in critical thinking abilities. Most of the responses stated that the lack of critical thinking activities in the education system was the

main reason. Other participants indicated that they had never been introduced to such questions before and never tried learning through e-community contexts.

1.4 Statement of the problem:

Most EFL adults do not practice CT even though it is necessary for their life and work. This lack of practice may be due to the regular teaching and learning methods in schools and universities. Adult EFL learners often fail to answer questions that require thinking abilities. This may be due to learning in usual contexts. Thus, the present study attempted to solve this problem by applying a program based on e-community contexts to develop adult EFL learners' critical thinking.

1.5 Study Questions

In order to investigate the problem, the present study tried to answer the following main question:

- What effect would a proposed program based on e-community contexts have on the development of EFL adult learners' critical thinking?

To answer the previous main question, the following sub-questions were to be answered:

1. What is the current level of EFL adult learners' critical thinking?
2. What are the components and activities of a program that aim at developing EFL learners' critical thinking abilities?
3. What are the proposed online strategies and activities that lead to developing EFL adult learners' critical thinking?
4. What is the effect of using a program based on e-communities for developing EFL adult learners' critical thinking?

1.6. Hypothesis of the study

“There is a significant statistical difference between the mean scores of the study participants on the pre and post administration of the test in overall critical thinking components in favor of the post-administration.”

1.7. Significance of the Study

This study was expected to be significant to:

- **EFL adult learners:** This study aimed at developing adult EFL learners’ CT and finding possible alternatives to regular classroom-based learning through using e-community contexts. The research also suggested solutions to EFL adult learners who have responsibilities and problems related to family, work, or distance of residence, to learn through simple, cheaper, and effective ways. Most adult learners spend long hours on the internet during work or at home, so the researcher aimed at encouraging EFL adult learners to utilize this time and helping those who need to learn and develop CT abilities.
- **EFL instructors:** The study could be a guide for EFL instructors who are interested in teaching CT via e-community contexts. They are provided with a variety of CT activities that would help them improve the quality of their teaching.
- **EFL researchers and curriculum designers:** The findings and results of the study represent an insightful guide to EFL researchers who could investigate related topics. The implementation of e-communities in the

present study could also be a reference to curriculum designers who are interested in educational e-community contexts.

1.8. Delimitations

This study was delimited to:

1. A group of voluntary EFL adult learners (n=20).
2. Their ages range from (20 to 30) years old.
3. Six critical thinking components necessary for the study participants were chosen; identifying elements of a problem or topic, data analysis, gathering data, identifying central arguments, providing evidence, and providing alternatives.
4. E-community contexts such as Facebook groups, Google Classroom, and ZOOM were chosen to conduct the online sessions.

1.9. Definition of Terms

- **Critical Thinking**

According to Doyle (2019), CT refers to the ability to analyze information justly and make reasoned judgments. Erstad (2018) defines critical thinking as the analysis of an issue or situation and the data, facts, or evidence related to it.

In the current study, CT is referred to as the process of using a set of thinking components that participants in this study used to solve problems and produce genuine alternatives. Some of these components included data analysis, gathering data, identifying elements of a problem or situation, identifying the central argument of a context, providing evidence, and considering alternative viewpoints. CT abilities are essential for EFL adult learners to solve their problems and to make judgments rationally without personal biases.

- **E-communities**

According to Montgomery (2019), an e-community is a group of people with a shared purpose or interest who use the internet to interact and communicate with each other. Organizations often create online communities to bring people together around a purpose for expansive online collaboration and growth. Donovan (2015) assumes that e-communities can be educationally and personally fulfilling when learners approach their courses with a commitment to initiate, respect, value, and fully engage in the material, dialogues, and group work.

In the current study, e-communities are referred to as online-based platforms that participants used for educational purposes. These e-communities included social media platforms and applications such as Facebook, Google Classroom, and ZOOM. All the activities of the proposed program should be conducted through these e-community contexts.

The remainder of this dissertation will be organized as follows:

Chapter Two: Review of Literature and Previous Studies.

Chapter Three: Methodology.

Chapter Four: Analysis and Discussion of Results.

Chapter Five: Summary, Conclusions, and Recommendations.

Chapter Two
Review of Literature
and Related Studies

Chapter Two

Review of Literature and Related Studies

This chapter covers the literature and studies related to the main elements of the current study. The chapter deals with critical thinking in education, CT and adult education, components of CT, EFL e-communities, and their components. At the end of the chapter, the researcher records his commentary and concludes the whole chapter.

2.1 Critical Thinking in Education

Critical thinking has been given intense interest from scholars and educators. Many studies have been conducted to validate the effectiveness of applying CT in adult education. Many educators tried to define CT to understand its nature. Nordquist (2019) sees that CT refers to the process of independently analyzing, synthesizing, and evaluating information as a guide to behavior and beliefs. This process includes the ability to verify, interpret, and reason, all of which involve applying the principles of logic. Robinson (2019) assumes that CT is the ability to think rationally and engage in reflective and independent thinking. This ability empowers learners to form their own opinions and make better choices. It is therefore essential to achieving academic success. Therefore, teachers play an important role in developing adult EFL CT to help learners navigate the ever-changing world around them.

The previous definitions, however, do not focus on the needs and skills of learners, such as Cottrell (2011), who assumes that CT depends on the questions and needs of learners. Besides, he considers CT as a complex process of circulation, which involves a wide range of skills.

Being an active critical thinker requires a set of characteristics. Acquiring these characteristics comes after a complicated process of trials and practices. According to Zhang (2003), the perfect critical thinker is habitually inquisitive, well-informed, trustful of reason, honest in facing personal biases, open-minded, flexible, prudent in making judgments, willing to reconsider, explicit about issues, and persistent in seeking results as the circumstances the inquiry permit. Therefore, critical thinkers need to adopt logical thinking and believe in its importance to reach their goals. Moreover, critical thinkers should be flexible and open to new assumptions and create authentic solutions based on the current situation. Their bias has to be eliminated to reach fair results.

Scriven and Paul (2007) presented the idea of collecting information by learners. They described CT as the intellectually disciplined process of actively conceptualizing, analyzing, applying, synthesizing, and evaluating information gathered from experience, reflection, reasoning, or communication. This conception focuses on the forming components of CT, such as data analysis, reasoning, application, and reflection. Hence, it is crucial to let EFL learners search, analyze data, apply, and assess knowledge by themselves.

Other researchers such as Shakirova (2007) shed light on the function of CT in solving problems. He states that CT is essential because they enable students to deal effectively with social, scientific, and practical problems. According to Shakirova, CT also helps learners understand their communities better. This understanding is vital in solving their society-related problems. Therefore, EFL learners should be encouraged to think about their society-related issues and try to introduce genuine solutions.

2.2 Critical Thinking and Adult Learning

While the concept of Andragogy, or adult education, had been in periodical usage since the 1830s, it was Malcolm Knowles who spread its usage for English language readers, Smith (2002). Knowles et al. (2005) described adult education as a process in which learners become aware of significant experiences. This recognition leads to evaluation. So, adult learners improve their learning when they know what is happening and what importance the event includes for their personalities.

Knowles set five main assumptions that distinguish adult learners from young learners:

- Self-concept: As a learner matures his self-concept moves from one of being dependent toward one of being a self-directed human being.
- Experience: As a person grows, he accumulates knowledge that becomes an increasing resource for learning.
- Readiness to learn: As a person grows, his eagerness to learn becomes oriented to the developmental tasks of his social roles.
- Orientation to learning: As a learner matures his perspective of time changes and his orientation towards learning changes as well.
- Motivation to learn: adults are highly motivated to learn as they have needs that learning will fulfill. Learning will help them grow professionally, as well. (Knowles et al.,2005, p. 4).

Moore (2010) suggests that adult learning is affected by several variables. Some of those variables are teaching styles, learning styles, motivation for participating in learning, cultural issues, students' past learning experiences, self-esteem, and personal problems. For Moore, it is crucial to consider the surrounding

factors that affect adult learners as their characteristics are different from young learners. Hence, instructors should consider those factors when dealing with EFL adult learners.

According to Galbraith (2004), adult learners are self-directed as they derive only positive benefits from the experience. Also, they possess high readiness to learn to solve a problem or finish a task. Their internal motivation drives them to seek learning, unlike young learners who often follow a mandatory educational system. At the same time, some adult learners prefer to be self-directed (Woodard, 2007); therefore, it is crucial to consider learners' preferences for learning. Consequently, adult learners should be allowed to decide what they want to learn according to their preferences and interests.

Since adult learners recognize the purpose of their learning, CT plays an indispensable role in adult education. Ecclestone et al. (2009) assured the importance of CT for adult learners as it allows them to feel confident about joining challenging programs. Beaumont (2010) asserts that CT skills that learners acquire in the classroom extend beyond the classroom. Also, Jarvis (2010) argues that adult education teachers should link learning to the problems of adult learners. Jarvis assumes that adult learners are motivated when there is a kind of disharmony between their experience and their perception of the world. Therefore, this disharmony encourages adult learners to think critically and “analyze their social contexts” (Jarvis, p.69). Therefore, teachers should encourage adult learners to think critically and implement further critical thinking activities in the classroom.

The researcher believes that there is a strong relationship between CT and adult education. Based on the characteristics and nature of adult learners, CT

activities should be implemented in adult curricula. Moreover, teachers need to understand the differences between adult and young learners. They also need to apply activities and tasks that include CT. Besides, the researcher agrees with the viewpoint that adult EFL learners should be given the freedom to decide what they prefer to learn according to their preferences and interests. Therefore, teachers should allow adult EFL learners to participate in choosing the topics they want to learn.

2.3. Benefits of Learning Critical Thinking for EFL Adult Learners

CT has become a key element and purpose for most educators and teachers. Many studies have been conducted on critical thinking to take it from theory to practice. Cottrell (2011) stated that learning CT has many benefits for learners. Some of these benefits include improved observation, the ability to identify the main conclusion of a text, and language skills such as focused reading. He also assured the importance of analytical skills that EFL learners can apply in different situations. Acquiring such skills helps adult EFL learners analyze given situations or problems, identify main ideas, and find genuine solutions. Besides, CT helps EFL learners develop the English language through the processes of thinking and its components.

Tempelaar (2006) assumes that many teachers still struggle to engage their students in critical thinking activities. Furthermore, (Bartlett, 2002; Rippin et al., 2002) agree that students seldom use CT to solve complex, real-world problems. Therefore, teachers have to teach learners how to think, not what to think. They need to focus on more thinking activities that would, consequently, serve developing learners' language acquisition.

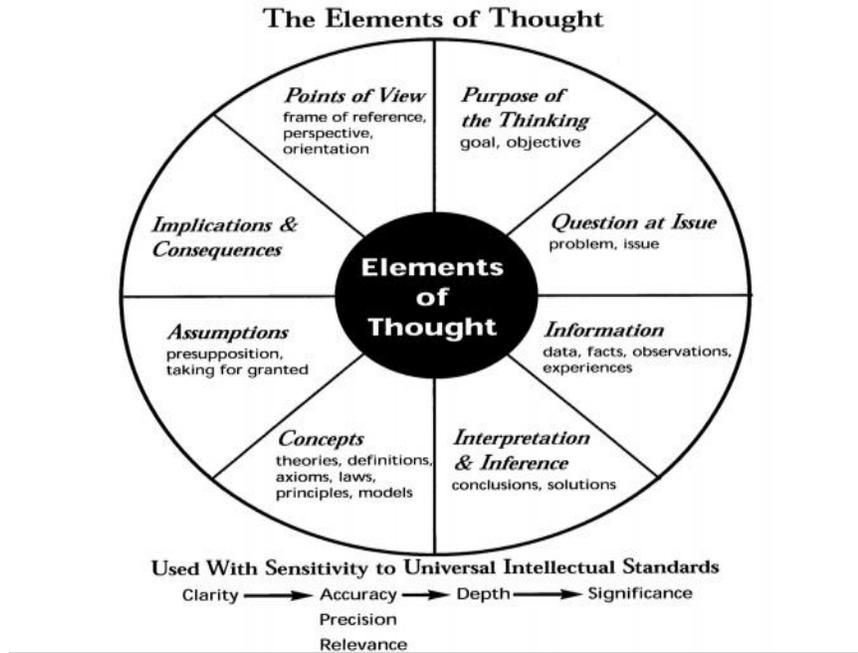
Regan (2015) mentions six benefits of critical thinking. First, it helps learners raise their awareness of differing approaches to solve a problem, alongside an ability to assess those approaches critically. Second, CT saves learners time by applying the most relevant approaches when solving a problem. Third, CT encourages EFL learners to respect and consider other viewpoints when making decisions. Fourth, CT creates better communicators who can support their viewpoints with convincing evidence. Fifth, learning CT makes it easier to make better decisions. Sixth, CT makes learners more reasonable and balanced problem solvers.

2.4. Components of Critical Thinking

According to Cottrell (2011), critical thinking is a complex process of deliberation, which involves a wide range of components. It includes identifying other people's arguments, positions, and conclusions; evaluating the evidence; weighing up opposing arguments and evidence relatively. He also assured the ability of analyzing, seeing behind surfaces, and identifying false or unfair assumptions.

Paul and Elder (2005) separate "all thinking" into eight distinguishable and necessary steps that they call the 'elements of Thought.' They also argue that CT includes the ability to raise vital questions; use abstract ideas to interpret information effectively; gather and assess relevant information; and think open-mindedly recognizing their assumptions, implications, and practical consequences. This distribution is shown in the following figure:

Figure (2.1)



The elements of Thought (adapted from Paul & Elder, 2005,p. 5)

Raising arguments is one of the essential components of CT. Cottrell (2005) introduced a definition of an argument as it is using reasons to support a point of view. She also differentiated between argument and disagreement and clarified that the argument is supported by reasons to persuade the audience.

Mouraz et al. (2014) state that argumentation is based on three fundamental ideas; demonstrative communicability, the potential of discussion, and contextual character. They also emphasize the importance of interaction and communication in raising arguments. Therefore, EFL learners should get involved in communicative activities that help develop their argumentative abilities.

Questioning is another fundamental component of CT. It is the beginning of creating critical thinkers. Astrid et al. (2019) assume that questioning strategies play an important role in recalling learners' understanding, attracting attention,

developing CT abilities, and engaging students in the content of the lesson. Shaunessy (2005) states that questioning strategies are essential to the growth of CT skills, creative thinking ability, and higher-level thinking skills. Hence, EFL teachers should include questioning activities through discussions and arguments.

Cottrell (2005) suggests a set of CT ancillary components. These components include observation, analysis, reasoning, judgment, argument, decision-making, and persuasion. Besides, he argues that learners should possess some or all of these components to cope with everyday life, work, or study. Cottrell also added that there are some underlying CT skills such as categorizing, selection and differentiation, comparing and contrasting, and identifying trends and patterns. Therefore, all these components should be considered to form a higher CT mind.

2.5. E-communities and the Theory of Connectivism:

Siemens (2005) coined the term ‘Connectivism’ to describe learning networks and shared it with Stephen Downes (Downes, 2012). Siemens (2005) claims that Connectivism is the integration of principles explored by chaos, network, and complexity, and self-organization theories. Learning is a process that occurs within vague environments of shifting core elements – not entirely under the control of the individual.

Siemens (2005) also sets some principles for his theory as follows;

- Learning and knowledge are based on a diversity of opinions,
- learning is a process of linking specialized nodes or information sources.
- Learning may depend on non-human appliances.

- Capacity to know more is more necessary than what is currently known,
- Nurturing connections is needed to facilitate constant learning.
- Ability to see relationships between fields, concepts, and ideas is a core skill,
- Currency (accurate, up-to-date knowledge) is the intent of all Connectivist learning activities,
- Decision-making is itself a learning process.

Similarly, Downes (2012) adds three key factors to create a successful e-community “interaction, usability and relevance.” Consequently, successful e-communities depend on interaction and communication. At the same time, the researcher believes that effective e-communities depend on a set of factors. First, a common purpose that attracts the members to join the community. Second, a set of rules and regulations is necessary to organize the interaction with the e-community. Third, the dependence on technology is another dominant trait of e-communities. Finally, the ability to interact and consider alternative viewpoints is a fundamental requirement for a successful e-community.

2.6. E-communities in EFL

E-communities are gradually altering traditional learning styles because of the widespread of the Internet. Members of these communities come from diverse places and have different educational backgrounds and different proficiency levels. They interact for learning a course or subject, such as a foreign language. Rovai (2002) states that, in an online learning community, all members expect that their learning needs will be satisfied by chasing a common learning goal. So, it is evident that e-community members develop a kind of “collective consciousness” because they build relationships with one another through the community.

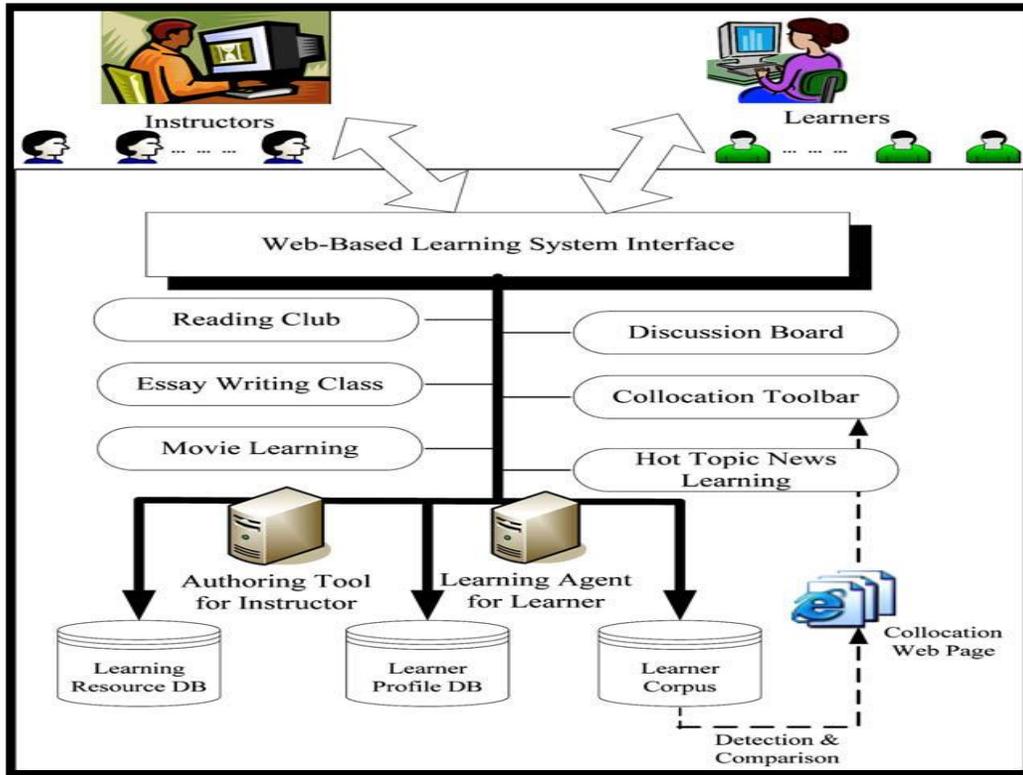
The term ‘e-community’ refers to any virtual or online community where a group of people with one or more interests communicate with each other to achieve specific goals. This kind of community is different from real communities in some aspects. Bermejo (2005) describes e-communities as the communities that depend on computerized communication systems as an environment for communication. Besides, Bermejo stated that in e- communities, there is an exchange of information and interaction between learners and instructors. Like real communities, the members of an e-community share the same interests and possess feelings of empathy and support to reach the desired purposes. Therefore, it is evident that e-communities depend on interactive communication between their members to reach the desired goals.

One of the examples of thriving educational e-communities is an online platform in Taiwan called Intelligent Web-based Interactive Language Learning (IWILL). IWILL was established in 2000 and continually renews the system’s functions, online curricula, and relevant learning activities (Wible et al. 2004). Sponsored by the Ministry of Education of Taiwan, IWILL is now used in over 200 high schools and has about 2000 teachers, 100,000 students, and 15,000 end-users throughout the country. Going through the IWILL e-community to know more about its components, the following components can be noticed as follows;

- *Learner*: This is a learner-centered design that focuses on interaction with peers and instructors.
- *Instructor*: IWILL instructors are teachers in high schools nationwide.
- *Essay writing classes*: It is an interactive online writing platform where students are taught to write in English through some guides. The teachers edit and grade the essays online and give feedback to the learners.

- *Movie learning*: Teachers can select dozens of classic films and let students learn English by watching them and studying the content, vocabulary, and phrases used in the dialogue
- *Learning through hot news*: IWILL teachers are always available to guide students in their learning activities and help learners through interactive discussions of hot news.
- *Discussion board*: This is a tool that allows a teacher to insert dedicated discussion boards anywhere in the lesson flow. These are also spaces for learners to share English learning, and learners can post problems they face on the discussion board to share with their peers. Also, teachers will help learners find solutions to the issues.
- *Authoring tools for instructors and the learning resource database*: IWiLL offers a series of advanced authoring tools for teachers to edit and produce online English teaching materials that meet learners' needs. After editing, materials are stored in the learning resource database so that other teachers can use them.
- *Learner profile database*: This database contains all the personal profiles and learning portfolios of learners.
- *Collocation toolbar and learner corpus*: When learning EFL, beginners usually make collocation mistakes. A mechanism, called a Collocator, is provided to help users with this problem. When users browse a webpage, the Collocator automatically detects whether any collocations appear in the article. If any collocations are found, the system will highlight and compare them with the learner corpus to detect corresponding collocations. (Wible et al., 2009).

Figure (2.2)



Framework of the IWILL e- community. (Wible et al., 2009, p. 604)

IWILL is considered one of the initial attempts to apply e-communities in EFL. However, the platform focuses only on specific language skills, such as writing and reading. Other language skills and higher thinking skills are not considered in the project. Many useful educational features, such as live classes and video conferencing, were not considered in the project. Hence, there has been a need for creating integrated e-communities where EFL learners can develop their language along with critical thinking abilities.

2.7. Components of an E-community

Trying to understand the nature of e-communities, Starke (2015) argues that successful e-communities include a set of characteristics. These

characteristics work together to create a distinctive learning environment. Some of these features include the following:

- Plan.
- Managed by humans.
- Designed for users.
- A purpose and culture.
- The possibility of modification.
- Awesome content
- Fun.

Sobrero (2008) identifies a set of components for e-communities based on critical elements for success. Her components include the following;

- Leadership,
- Negotiation of a mutually beneficial project or plan,
- Establishment of reliable technology and support,
- Building respect and trust through social engagement, and
- Maintaining effective leadership and momentum.

From the previous assumptions, it is clear that e-communities share some aspects with face-to-face communities such as willing participants and groups and common goals. However, e-communities have their unique characteristics, such as the clarity of purpose and reliance on technology. Verderber & Verderber (2010) suggest a set of components to create an effective e-community. These components include the following:

- **Well defined purpose**

An e-community should have a well-defined purpose. Fulfillment of the goals of an e-community should result in a satisfactory outcome. The purpose also

determines the nature of the e-community – one-time activity or regular forum. Also, it could be a development project, service, design problem, or any other focused objective.

- **Willing participants**

The members of any community should be willing to share information, experience, and knowledge about the theme of the community. They also need to have enough time to collect, process, and disseminate information.

- **Basic/Background Content**

There should be some present necessary information or content about the central theme of the e-community. This content could be developed by founding members and moderators to manage the e-community.

- **IT and technical support**

The members of the e-community need Internet connectivity along with the usual communication devices and facilities. Provisions for regular maintenance and upgrade of such facilities should not be overlooked in the design stage. A vast array of computer programs is available in the public domain for starting an e-Community within a network of computers. However, for non-technical people, ready-made solutions or platforms are recommended, such as Dgroups, Yahoo Groups, Facebook Groups, and Microsoft teams. There should be help desk and FAQ functions for the e-community members.

- **Communication Structure and Protocols**

All members should stick to mutually agreed-on communication rules for the smooth functioning of the community. The rules could be posted on the e-community page or sent by e-mail to all existing and new members. (Verderber & Verderber, 2010)

According to Wenger et al. (2002), e-communities rely on three main elements:

- **The domain** is the area, issue, discipline, or topic of practice that creates the need for shared content.
- **Community** refers to the nature of social relationships among members resulting in trust, belonging, identity, and engagement over time.
- **Practice** refers to the activities and actions the community implements over time to address and build upon a body of knowledge. ‘Practice’ is learning through co-creation that generates content, theory, science, cases, methods, application, and new questions or issues needing attention.

Based on the previous components, curriculum designers and educators should consider those components to establish effective EFL e-communities. The researcher believes that effective EFL communities rely on a set of components such as a common purpose, proactive participants, clear content, guiding rules, and constant technical support. Besides, EFL learners should learn about the features of the introduced e-community, how to use it, and what to do if they face a technical issue. Also, content should be clear and diverse to meet the needs and interests of all participants of the e-community.

2.8. Face-to-face contexts vs. e-communities

Face-to-face learning methods are still paper-based, whereas the online learning medium is Web-based. According to a study conducted by Ekwunife-Orakwue & Teng (2014), it was found that learners interacted with the course content more often than they interact with the instructor and colleagues. As online-based content is more diverse than face-to-face content, it could be concluded that web-based content is more effective than traditional content. Besides, most adult

EFL learners prefer online-based content, as it is easier to access than traditional content.

Rovai (2004) stated that the requirements of learners should be considered when designing an online curriculum. Therefore, educators and curriculum designers should consider the needs and preferences of their learners when designing online-based content.

De (2018) assumed that traditional classes are more suitable for young children and teenagers as regular attendance would help them interact with other individuals of their age and be better disciplined, and improve their physical fitness and mental alertness. On the other side, adult EFL learners are more self-disciplined, so they seek flexible methods for learning, such as online-based courses.

According to Bogle (2017), online learning has many benefits for adult EFL learners. Online learning offers more flexible scheduling than face-to-face programs. Thus, learners can choose the suitable timing for their classes. Online learning also offers a more personalized learning experience where a variety of learning resources can be utilized. Moreover, online learning may lead adult EFL learners to better career prospects. The researcher agrees that online-based content is highly effective in teaching adult EFL learners for many reasons. Online-based content is more comfortable to access at any time. Also, it is more affordable and practical than traditional books. Besides, online-based contexts offer a variety of learning strategies where learners can develop all aspects of language via reading, listening, watching videos, and interacting with other members of the e-community.

E-communities have also proved their efficiency in times of natural disasters and pandemics such as COVID-19. Li & Lalani (2020) confirm that the COVID-19 pandemic has changed education forever and that learning online can be more effective in many ways. Some studies show that on average, learners retain 25-60% more knowledge when learning online compared to only 8-10% in a classroom. Besides, learning through e-communities is safer and cheaper than face-to-face learning. Consequently, many schools and universities shifted to online education after the strike of COVID-19 in 2020. Therefore, it is believed that online education will continue to prevail post-pandemic.

2.9. Teacher's Role in EFL E-communities

Many studies and researches have confirmed the vital role of teachers in EFL learning. Kudryashova et al. (2015) claim that the 5E instructional model can be used as a practical framework for defining the teacher's role to achieve educational objectives in active learning. The 5E model suggests that teachers' roles include the following:

- Engage: Teachers help learners become engaged in a new concept through the use of activities that promote curiosity and elicit prior knowledge.
- Explore: Teachers should encourage learners to explore and discover new experiences.
- Explain: In this phase, teachers allow their learners to explain the experiences they explored. This explanation guides them toward a more in-depth understanding.
- Extend/Elaborate: Teachers challenge and extend learners' conceptual understanding and skills. Through new experiences, the learners develop a broader understanding and adequate skills. Learners apply their understanding of the concept by conducting additional activities.

support and advice when needed and provide the required guidance when necessary.

Similarly, teachers should vary their teaching methods to suit different learning styles and multiple intelligences. Padron, Waxman, & Rivera (2002) suggest that teachers should encourage cooperative learning activities. Daniels (2002) assumes that book clubs or literature circles are useful in teaching EFL.

One of the requirements of a modern teacher is to be fluent in technology. Wantulok (2015) states that technology is necessary for new teachers. Also, technology enhances the relationship between teachers and learners. This relationship enables teachers to grow into roles of advisers, content experts, and coaches. The researcher believes that being technologically fluent means that a teacher should at least have the minimum skills to be able to deal with the new educational tools and e-communities. They should be aware of the concepts and principles of EFL e-communities, how to use them, and how to create online content by using the available tools and resources.

2.10. Learners' Role in EFL E-communities

Learners are the main element of the educational process. According to De (2018), adult EFL learners seek professional courses to increase their opportunities in getting promoted or finding a better job. However, many employees might be exhausted after their work and do not want to attend regular classes. Hence, online learning through e-communities could be a successful alternative to traditional classrooms.

As learning has become a student-centered process, teachers should be aware of modern students' characteristics and needs. Teachers should guide them through the process of creating a learning environment where students feel comfortable

thinking through an answer rather than merely having an answer. New teaching techniques should be implemented. For example, peer coaching techniques can engage students in active learning and critical thinking opportunities (Ladyshewsky, 2006). Assigning students to two-person teams is also useful; one student is the problem solver, and the other is the peer coach. In this strategy, the problem solver works through a case study or activity by responding to questions from the peer coach. Also, following the six steps of Facione (2007) or “IDEALS” to achieve practical thinking and problem-solving. The IDEALS stand for Identify, Define, Enumerate, Analyze, List, and Self-correct:

I – Identify the problem: What is the real question we are facing?

D – Define the context of the problem: What are the conditions that frame this problem?

E – Enumerate the choices: What are the possible options?

A – Analyze the options: What is the best course of action?

L – List the reasons explicitly: Why is this the best course of action?

S – Self-correct: review it again. What did we miss?

These techniques guide students through the critical thinking process and utilize learners' collaboration through teamwork. Similar strategies include project-based learning activities that require students to apply their knowledge by constructing a real-world product or create something new. As a final guide to students' practice, using peer assessments would facilitate students' critical thinking and metacognitive skills (Hou et al., 2007).

2.11 Assessment in E-communities

Assessment is a fundamental component of any learning experience. It helps learners know whether they progress in their learning or not. Besides, it is an

effective tool for teachers to highlight the strengths and weaknesses of their learners and improve their teaching techniques. Also, it helps teachers in creating and modifying learning activities in light of learners' evaluation.

Colman (2020) states that “assessments are about more than just grades.” For her, a well-constructed assessment helps learners gear up for success by challenging them to interact, reflect, and apply their knowledge to solve problems and communicate information.

Norman (2016) argues that online learning has expanded the possibilities of assessment even further because it offers a variety of tools that can be used to help learners interact with the introduced content in new and exciting ways. Therefore, educators should consider the following standards when creating online assessment tools:

- Capitalize on digital resources.
- Aim for authenticity.
- Use students’ environments and experiences.
- Incorporate collaboration.
- Use both formative and summative assessments.

Colman (2020) points out that choosing the best assessment methods depends on learning needs and objectives. For that, she introduces a set of assessment methods as follows;

- Online Quizzes
- Open-Ended/Essay Questions
- Drag-And-Drop Activities
- Online Interviews

The researcher focused on the importance of implementing CT in EFL teaching to help adult learners think critically and solve problems. Therefore, CT activities should be added to EFL curricula, and adult learners should be encouraged on using CT strategies in their learning. Besides, teachers need to develop their CT abilities and learn more about CT components to be able to implement them in teaching.

In conclusion, it became evident to the researcher that e-communities can be effective in developing adult EFL learners' CT. Many studies and researches proved that e-communities could be efficient alternatives to real classrooms. Moreover, learners can learn better through the variety of features that e-communities offer. As a result, the researcher designed a program based on e-communities to develop adult EFL learners' CT abilities. The following chapter will present the method followed in the present study.

Chapter Three

Methodology

3.3 Setting of the Study

The experiment was entirely conducted online. The researcher used ZOOM CLOUD MEETINGS to deliver the sessions of the study. ZOOM is one of the popular apps used as a virtual platform for video and audio conferencing and webinars. That context provided a set of features that made it an effective alternative to traditional classrooms.

The researcher used the features of ZOOM to apply the assigned activities of the proposed CT program. The researcher and participants had unique ID numbers to be able to log on to ZOOM. After logging, they could participate in sessions as if they were in a real classroom. They could raise hands, get involved in discussions, watch PowerPoint presentations and videos, share their responses, and answer questions. Besides, the researcher could manage the session through a set of features such as muting voices or allowing them to talk and raise hands. The most important feature of ZOOM as a context is the easiness of participation and interaction.

3.4 The Critical Thinking Components Check-list (Appendix B)

After reviewing the previous studies and literature, the researcher developed a critical thinking list to be a guide in designing the other instruments and the proposed program of the present study. In light of this list, the activities of the program were also designed to match the predetermined critical thinking abilities.

- **Purpose**

The CT components checklist aimed at targeting specific CT components needed for EFL adult learners.

questions were dedicated to one ability only. Participants had to read each question and ask the researcher when having any inquiries. Learners should finish the test in three hours.

- **Content of the test**

The test contained twelve questions that measured adult learners' CT skills before and after conducting the proposed program. Each pair of questions evaluated a specific CT component. Articles, videos, and some illustrations were included in the test. The entire test was conducted online through e-community contexts such as ZOOM, YouTube, Facebook, Google Classroom, and others. The time of the test was three hours. Fifteen minutes were devoted to each question.

- **Piloting the tests**

The test was piloted on a group of fifteen EFL adult learners. It was conducted before teaching the program. The purpose of this piloting was to ;

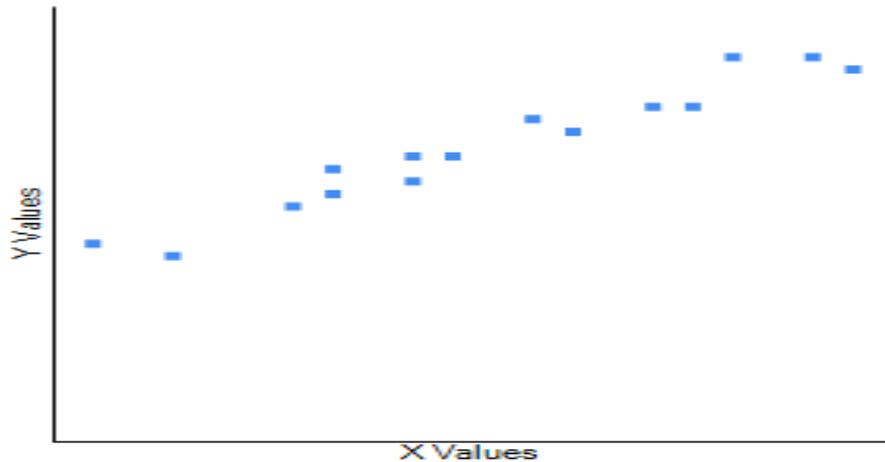
- Investigate the reliability of the test.
- Make sure that items were clear and understood.
- Ensure the validity of the test.
- Determine whether any item needed to be changed or modified.
- Check if any distractors would come up during the test.
- Determine the appropriate time frame to answer the test.

- **CT test reliability**

The test was conducted again on the same group after ten days. The purpose of the retest was to assess the reliability of the test for the same participants. Pearson's correlation coefficient was found to be (.97), and this indicated that the

test had a high degree of reliability. The following figure illustrates the results of Pearson’s correlation coefficient between the two times of conducting the test:

Figure (3.1)



Test-Retest Correlation between two Sets of Scores of CT test, given ten days apart. Y refers to the first time, and X refers to the second time.

- **CT test validity**

The validity of the CT test was verified by submitting the test in its initial version to a group of EFL specialized jury members. They were requested to determine the appropriateness of the content of the test and the suitability for EFL adult learners.

3.5.2 Critical Thinking Rubric (Appendix D)

- **Purpose**

The CT rubric was designed by the researcher to help assess the learners’ performance in the pre/post-test. The purpose of the rubric was to assess the participants’ performance before and after conducting the program.

- **The structure of the rubric**

The rubric consisted of six CT components. Each item was assessed according to a rating scale ranging from 1 to 3, where ‘1’ indicates ‘emerging,’ ‘2’ indicates ‘developing,’ and ‘3’ indicates ‘fluent.’

- **Validity**

The validity of the CT rubric was confirmed by the suggestions of the jury members. Their constructive advice helped the researcher generate the final version of the rubric in light of the CT components list. For example, more details were added to each item in the final version of the rubric.

3.6. The Proposed Critical Thinking Program (Appendix E)

- **Overview**

In this program, learners went through various critical thinking activities via an e-community context. They were given many topics and problems and were asked to analyze them and raise arguments to come up with genuine solutions and alternatives. Data analysis, raising arguments and discussion were among the strategies used in this program.

The program was conducted entirely online. The learners had to attend all the classes on ZOOM Cloud Meetings. ZOOM is one of the popular apps that is used as a virtual platform for video and audio conferencing and webinars. It provides a set of features that make it an effective alternative to traditional classrooms.

- **Duration of the Program**

The proposed program was conducted in eight weeks. The researcher used to meet the learners once a week, and each session ranged from two to three hours. So, the total number of sessions was eight sessions, including administering the pre/post-test.

- **Learning/teaching techniques and strategies**

In this program, collaborative learning was the main teaching/learning strategy. It helped the researcher in achieving the desired objectives of the program. Therefore, the learners were encouraged to work together in different activities. Also, the teacher's role was limited to monitoring and guiding the learners. In many activities, the learners were divided into smaller groups or pairs and were given critical problems to solve.

Strategies such as active learning and differentiation were also considered in designing the activities of the program. The researcher varied the activities to suit different learning styles, such as audible and visual learners. Therefore, colorful pictures, videos, music tracks, graphic organizers, think-pair-share activities, and e-stories were implemented in the activities of the program.

- **Assessment**

The assessment strategies used in the program vary between diagnostic, formative, and summative assessments. The diagnostic assessment was used before each lesson to assess the learners' prior knowledge of the introduced topics. Diagnostic questions also helped the researcher plan future lessons according to the learners' prior knowledge and needs. To achieve this, the researcher used pre-

course questions and warm-up quizzes to see how far they know about the introduced topics.

Formative assessment was conducted to assess the learners' performance during the course and to provide insightful feedback. Techniques such as THINK-PAIR-SHARE, self-check quizzes, discussions, and observations were implemented during the sessions.

Summative assessments were conducted after each session and at the end of the program. The purpose of applying summative assessment techniques was to evaluate the development of learners' performance. For that, authentic assessments such as projects, lesson tests, speeches, and video recordings were used after each lesson.

In order to assess the whole performance of the participants, a pre-post test was designed. The test was conducted before and after administering the program. The researcher used a rubric to evaluate the participants' development in the pre-assigned CT components. Finally, the researcher compared the results of the pre and post-CT tests to measure the effect of the proposed program on developing adult EFL CT.

To conclude, this chapter dealt with the study method used in the study, study design, participants, setting, and instrumentation of the study. It also provided a full description of the study proposed program. The coming chapter will present the quantitative and qualitative analysis, study results, and discussion of these results.

Chapter Four

Results and Discussion

Chapter Four

Results and Discussion

This chapter reviews the statistical analysis of the data, study results, their explanations, and the discussion of these results. The chapter is divided into two main parts; the first part deals with the quantitative results and analyzing them statistically, and the second part presents the qualitative data collected from the participants and the researcher’s reflection on the entire experiment.

4.1 Results of the study

The results of the present study are reported in terms of the study hypothesis.

4.1.1 Verifying the hypothesis of the study:

The hypothesis of the present study states that “There is a significant statistical difference between the mean scores of the study participants on the pre and post administration of the test in overall critical thinking components in favor of the post-administration.” In order to verify the hypothesis of the study, the paired t-test was used to compare the participants’ total mean scores on the pre-post administration of the test.

Table (4.1):

t-test results comparing the obtained data for overall CT components pre-posttest of the study participants:

Components	Mean		Std. Deviation		t-test	Sig
	Pre	Post	Pre	Post		
Identifying elements	2.65	5.1	.74516	.78807	8.876	0.00
Data Analysis	2.8	5.05	.76777	.75915	8.041	0.00
Gathering Data	2.6	5.20	.68056	.69585	10.177	0.00

study participants on the pre and post-CT test regarding the development of ‘ data analysis’ in favor of the post-test scores.

In the component of ‘gathering data’, the significance level is less than (0.01). Also, the value of t-calculated (10.17) is bigger than the value of t-tabulated (1.72). Therefore, it can be concluded that there is a clear, statistically significant difference between the mean scores of the study participants in the section of ‘gathering data’ in favor of the post administering.

In the component of ‘identifying central argument’, the significance level is also less than (0.01). Besides, the value of t-calculated (7.13) is bigger than the value of t-tabulated (1.72). Therefore, it can be concluded that there is a clear, statistically significant difference between the mean scores of the study participants on the pre and post-CT test regarding the development of ‘identifying central elements’ in favor of the post-test scores.

In the component of ‘providing evidence’, the significance level is less than (0.01), which indicates that there is a statistically significant difference between the mean scores of the study participants on the pre and post-critical thinking test in terms of ‘providing evidence ‘in favor of the post-test scores. Also, the value of t-calculated (8.13) is bigger than the value of t-tabulated (1.72). Therefore, it can be concluded that there is a clear, statistically significant difference between the mean scores of the study participants on the pre and post-CT test regarding the development of ‘ providing evidence’ in favor of the post-test scores.

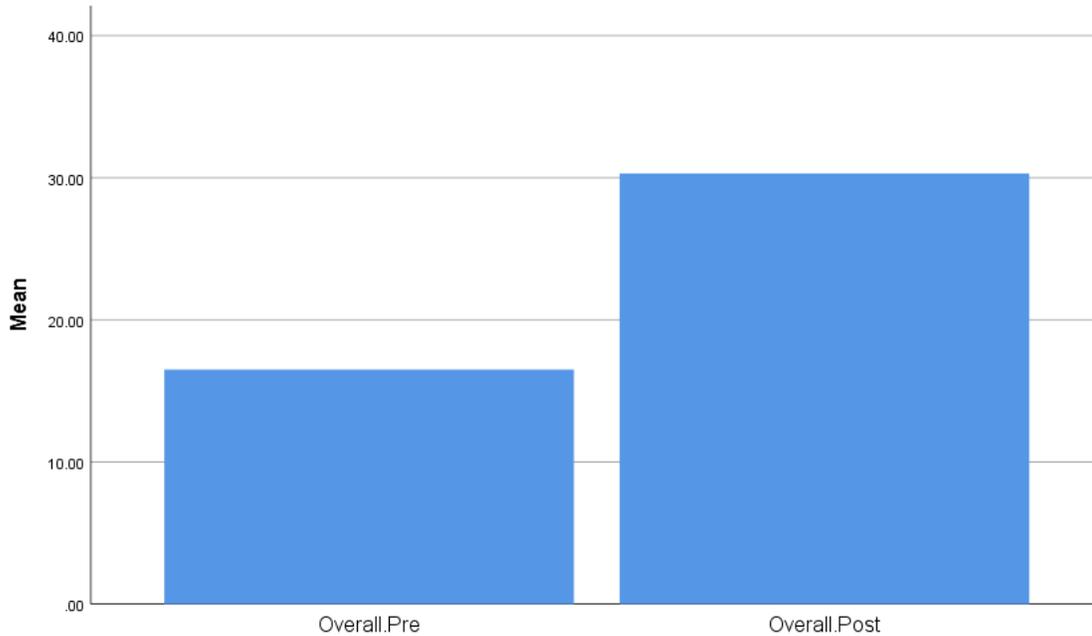
In the component of ‘considering alternative viewpoints’, the significance level is less than (0.01), which indicates that there is a statistically significant difference between the mean scores of the study participants on the pre and post-

critical thinking test in terms of ‘considering alternative viewpoints’ in favor of the post-test scores. Also, the value of t-calculated (11) is bigger than the value of t-tabulated (1.72). Therefore, it can be concluded that there is a clear, statistically significant difference between the mean scores of the study participants on the pre and post-CT tests regarding the development of ‘considering alternative viewpoints’ in favor of the post-test scores.

The significance level is less than (0.01), which indicates that there is a statistically significant difference between the mean scores of the study participants on the pre and post-test in terms of the **overall skills** in favor of the post-test scores. Also, the value of t-calculated (18.006) is higher than the value of t-tabulated (1.72). Consequently, it can be inferred that the first hypothesis is to be accepted. Therefore, it can be concluded that there is a clear, statistically significant difference between the mean scores of the study participants on the pre and post-CT test regarding the development of ‘CT as a whole’ in favor of the post-test scores.

Regarding the ‘overall CT’, the significance level is less than (0.01). Also, the significance level is less than (0.01). Besides, the value of t-calculated (18.006) is higher than the value of t-tabulated (1.72). Consequently, it can be inferred that the study hypothesis is to be accepted. Therefore, it can be concluded that there is a clear, statistically significant difference between the mean scores of the study participants on the pre and post-CT test regarding the development of ‘overall CT components’ in favor of the post-test scores. This difference is clearly illustrated in figure (4.1).

Fig. (4.1) The difference between the mean scores of the pre and post administering of the critical thinking test



4.1.2 Measuring the effect of the program on developing Critical Thinking:

In the present study, the researcher used t.test to compare participants' mean scores in the pre and post administration of the critical thinking abilities tests and to determine the significant difference between students' mean scores via the following formula:

$$T_{cal} = \frac{M}{\sqrt{\frac{SD^2}{N-1}}}$$

t_{cal} = The calculated value of the difference between mean scores.

M = Mean of differences.

SD^2 = Variance of difference.

N = Sample number.

The significance of the differences took place between t_{cal} and t_{tab} through the degree of freedom (N-20).

Also, in order to make sure that the results obtained from the t-tests were reliable and to measure the effect size of the program on developing critical thinking skills; its effect size was calculated according to the following formula:

$$\text{Effect size } (\eta^2) = \frac{t^2}{t^2 + \text{degree of freedom}}$$

Where:

"t" = "t" value of the difference between the experimental group student's mean scores on the pre and post administrations of the critical thinking skills test.

Table (4.2)

The referential framework for identifying the effect size of the t value is as follows (Hattie,2009):

Effect size value	Interpretation
From 0.00 till less than 0.01	Low effect size
From 0.01 till less than 0.06	Average effect size
0.14 or more	Large effect size

*Adapted from (Hattie,2009)

0.85, which is a large effect size. This value also shows that the proposed program is effective in developing the ability of ‘gathering data.’

From table (4.3), it is also obvious that the effect size of the ‘identifying central arguments’ component equals 0.72, which is a large effect size. The table also shows that the effect size of the ‘Providing evidence’ component equals 0.77, which is a large effect size. Based on the previous values, it can be concluded that the proposed program is effective in developing the components of ‘identifying central arguments’ and ‘Providing evidence.’

Table (4.3) indicates that the effect size of the ‘considering alternative viewpoints’ component equals 0.86, which is large effect size. This value proves that applying the proposed program is highly effective in developing EFL adults' ‘considering alternative viewpoints’ ability. The table also shows that the effect size of the ‘CT overall’ components, expressed by the ETA squared (η^2), is greater than (0.14) and equals 0.94, which is a large effect size. Therefore, it can be concluded that the proposed program is effective in developing the ‘overall CT’ abilities.

Based on the previous results, the hypothesis of the study is proven to be statistically valid as the proposed program is effective in developing EFL adult learners’ CT. Also, the main question of the study has been answered:

What effect would a proposed program based on e-community contexts have on the development of EFL adult learners’ critical thinking?

4.1.3 Discussion of Results

The previous part analyzed the quantitative data that was collected and processed statistically in light of the suggested hypothesis. The results of the statistical analysis show that there is a statistically significant difference between

the mean scores of the study participants on the pre and post-test in terms of the development of participants' 'overall' critical thinking in favor of the scores of the post-test. This difference was proved in the hypothesis and table (4.3). Therefore, the suggested program was proved to be effective in developing EFL adult learners' CT.

Looking into each CT component, the statistical analysis results for the targeted six components of the present study indicated that there was a statistically significant difference in each CT component between the participants' mean scores on the pre and post-test in favor of the scores of the post-test. This difference was also shown in the positive development of the participants' performance before and after conducting the program. Therefore, it can be concluded that the proposed program can be applied effectively to develop EFL adults' critical thinking.

The second part of this chapter deals with the qualitative data collected from the participants and the researcher's reflection on the conducted program.

4.2. Qualitative Analysis of the Learners' Production

This section presents the qualitative data collected from the participants' responses through a course evaluation survey and open-ended questions at the end of the experiment. Collecting and analyzing this data helped the researcher reflect on the entire experiment and understand how the participants positively interacted and benefited from the program. It also helped him know how far the proposed program was effective in developing the participants' critical thinking abilities.

- **Analysis of the learners' discussions concerning the targeted critical thinking components**

Learning and practicing critical thinking is a complicated process that requires constant practice. At the beginning of the experiment, participants had a

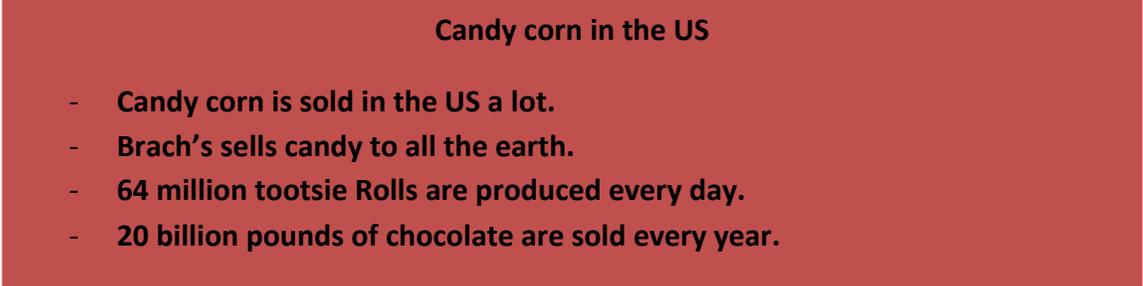
vague background about critical thinking and its components. When they were introduced to critical thinking, they showed great interest in learning and developing it. By the end of the experiment, it was evident that the participants could develop their CT through its components. Following are the targeted CT components through which participants' development could be verified:

- **Identifying elements of a problem**

Participants' ability to identify the elements of a topic or a problem has been developed by the end of the experiment. In the beginning, participants could not determine the main elements of passages easily as they had never been trained on this kind of thinking activity.

As for the pre-test responses, participants almost could not spot the main elements of the given questions easily. They gave general statements and copied some sentences from the passage. They could not explain their answers clearly. Many of them stated that they had never been exposed to these kinds of questions, so it was not easy for them to analyze or decide the main elements of a topic or an issue. Following are some participants' answers to some questions of the pre/post-test:

In the pre-test, **S.H.** answered the sixth question, which was about 'summarizing and identifying the main elements of the passage' as shown in the following screenshot:



Candy corn in the US

- Candy corn is sold in the US a lot.
- Brach's sells candy to all the earth.
- 64 million tootsie Rolls are produced every day.
- 20 billion pounds of chocolate are sold every year.

In her answer, she put a title that did not refer to the main idea of the passage. She also wrote short sentences and could not explain the main elements of the text in her own words as she was just copying the statements. It was apparent that she could not elicit the main idea or specify the main elements of the passage.

In the post-test, SH’s response was more detailed, elaborate, and specific, as follows:

Candy Market in the US

The US has a big candy market where billions of confections are sold every year.

Brach’s is the top producer in the states sells candy corn that can circle the earth 4.25 times!

Tootsie Rolls, another chocolate-flavoured taffy, are produced in the amount of 64 million pieces every day.

Chocolate is still on the top. Over 20 billion pounds of chocolate is produced each year.

In the post-test, ‘S.H.’ could identify the main idea of the passage as she picked a better title for the given passage. Her style in writing and organizing her ideas has improved as well, and she showed more confidence in understanding and summarizing the passage. She could also list the main elements of the original passage in a precise and clear way. Her answer showed that the proposed program was effective in developing the first CT component, “identifying elements.”

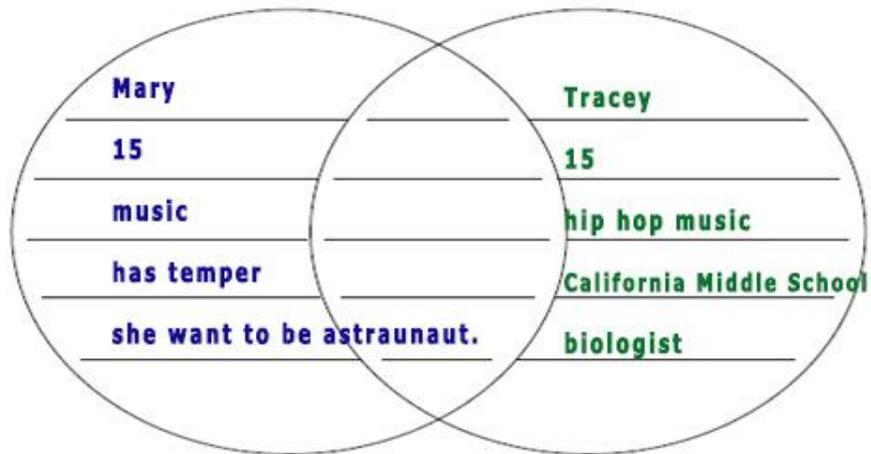
- **Data analysis**

The participants’ ability of ‘data analysis’ and breaking it into smaller units was developed throughout the experiment. They could analyze topics and find the roots of problems to make better decisions.

During the pre-test, it was evident that most of the participants could not compare or contrast the information given in the passage of the second analysis question. They could not also fill out the correct relevant data in the first question of the CT test. Moreover, most of them could not find relations between different components of the problem. Following are some participants' answers to some questions of the pre/post-test:

In the pre-test, S.S. answered the second question about 'data analysis' as follows:

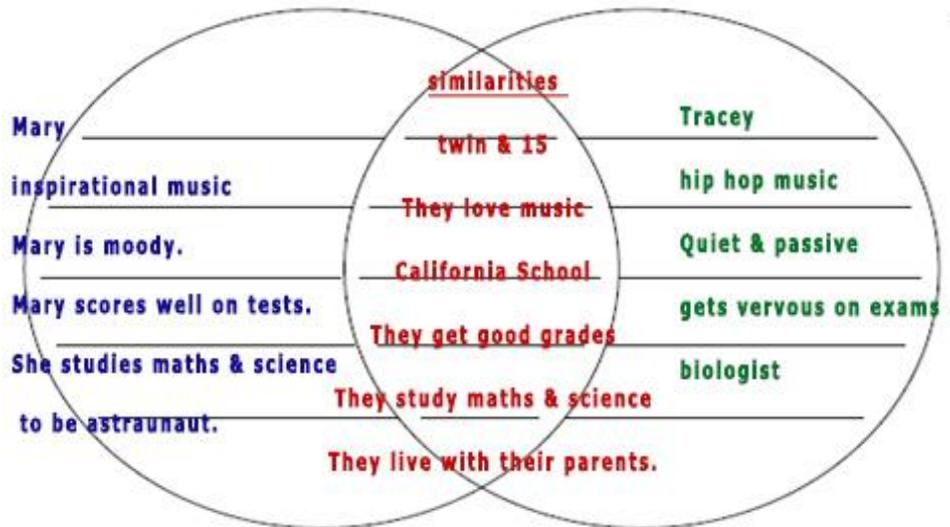
Figure (4.2) A created Venn Diagrams by a learner to analyze data (pre-test)



In this question, participants were asked to read the passage, then use the Venn diagram to compare and contrast Mary and Tracey. As shown in her answer, Sahar just copied some words from the passage and could not compare and contrast all the details in the passage. She could list some differences between Mary and Stacey, but she did not list any similarities between them. Also, she used simple words in her answer. Later, she stated that she never compared and contrasted or used graphic organizers such as the Venn diagram.

In her post-test, S.S. showed significant development in the ability of data analysis. She could easily compare and contrast different elements. Besides, she could find the interrelationships between the components of the passage. Following is her answer to the second question of the CT post-test:

Figure (4.3) A created Venn Diagrams by a learner to analyze data (post-test)



As shown in the previous answer, it is evident that S.S. developed her data analysis ability. She could find the differences between Mary and Tracey and cited them in a more organized way. Moreover, she extracted the similarities between the two characters and put them in the right place in the Venn diagram. Generally, she showed considerable enhancement in using graphic organizers and in developing her data analysis ability.

- **Gathering data**

Gathering data is one of the essential components of critical thinking. In this process, learners are required to navigate and gather all the relevant information, then evaluating them to make well-reasoned conclusions. At the beginning of the

experiment, the learners thought that gathering data was just about collecting information about a specific topic or problem. They could not explore the relationships among the collected data and whether this data is feasible or not. When the participants were asked about what they knew about ‘gathering data,’ some of them answered as follows:

A.H.: “I think ‘gathering data’ mean to find information on something.”

Y.S.: “I agree with Asmaa that gathering data means to collect details about a topic or a problem to solve it.”

K.A.: “Gathering the right data is required to solve a problem or in research. Many companies ask their staff to collect information on many topics.”

Questions (3) in the CT test was about ‘gathering data.’ In this question, the learners were asked to imagine that they were wedding planners who were required to plan for a wedding. They were required to gather all the needed items to give a successful wedding. Following are some of the learners’ answers before and after conducting the proposed CT program:

S.H’s answer before conducting the program:

“First, I need to decide the best place for the party and the number of tables and chairs. I also need to choose the food and desserts. Finally, I will call a musician band and choose the songs that will be played at the wedding.”

After conducting the program:

“ First, I am going to arrange a meeting with the bride and the groom to decide the colors of the curtain and seat cushions, the served food, number of tables and seats, and the activities they want. Then I will contact the catering supplier and

arrange the number of dishes and the content of each dish. It has to include a piece of meat, vegetables, rice, and a drink. Appetizers and desserts will be on each table. I will choose the main wedding cake as well. There will be 20 tables in the hall so that each table carries 5 guests. After that, I will arrange the invitation brochures and the design of the cards. I will design a big banner to be put in the hall. The musician band will be contacted and the songs will be chosen. I will also call the photographer for the photography session. Finally, I will arrange the sequence of the activities and call the car agency to prepare a car for the wedding.”

Another participant, **A.F.**, answered the same question before conducting the program as follows:

“I will prepare a new car and decorate it for the couple. I will count the number of tables and seats for the wedding and choose the cake and food. I will do the invitations and send them to the relatives of the couples. I will also create an event on Facebook.”

After conducting the program:

“ I will talk to the couple and ask them about all they want before I start preparing. Then I will choose the best place for the party and the number of tables and seats. Then, I will call the food company and ask them to prepare the food, drinks, and cakes that we will need for the wedding party. After that, I will call the singers and tell them about the date and time of the wedding and choose the songs. I will also call my friend, he is a famous photographer. He will come to take the pictures and do the photo session. Also, I will send invitations to the guests who will come to the party. I will write everything, so I don't forget anything.”

In the pre-test, it was apparent that most participants cannot gather and evaluate data to solve a problem. Their responses were not organized and lacked the logic sequence. They could not collect the relevant items needed for the required ‘wedding party.’ Most of the answers were short, and they could not cover all the stages of the wedding. In general, the answers showed a basic understanding of the targeted component.

After conducting the CT program, the participants’ responses showed significant development in the ability of ‘gathering data.’ They covered more details regarding the tackled task. Also, they could organize their responses in a logical sequence to cover all the stages of the task. Besides, it was noticed that they could evaluate the data and relate it to solving the expected problems, so they mentioned the reasons behind choosing some of the items. As a result, they tried to choose the best among the available alternatives to deliver a successful wedding party. Therefore, it could be inferred that the conducted CT program was effective in developing adult EFL learners’ ‘gathering data’ component.

- **Identifying the central argument**

At the beginning of the experiment, most learners showed no or low ability to identify the central argument of a text or problem. They were not able to discuss the main idea of the text or problem. Also, they easily get distracted by other minor details rather than eliciting the central argument. That weakness was evident in the learners’ responses to question (7) in the CT pre-test. Following are some of the learners’ responses before and after conducting the program:

Before conducting the program, **S.B.** answered the seventh question as follows:

“The article is talking about flying and traveling. It shows information about the number of travelers who fly every year. The article shows the countries that are more polluted because of flights. The US and China are the most polluting countries. They have the highest CO₂ level in the air because of smoke”.

After conducting the program:

“The article shows how travelers affect the environment by flying a lot. That is why frequent travelers should feel guilty as they participate in polluting the environment and increasing the level of CO₂ in the atmosphere. The statistics show that travelers emit more than 3 tons of carbon dioxide each year. The article suggests that the solution to this problem happens if companies manufacture economic airplanes to save fuel. However, flights number increase every day because people keep flying. My opinion is that I agree with the argument of the article that people should feel guilty about traveling a lot because this destroys the environment. And I suggest that people should only travel if they really need to travel, only for business or work not for fun.”

M.G. , another participant, answered the same question as follows:

Before conducting the program:

“I think the main argument of the text is about if we need to fly a lot or not. In my opinion, I agree that we need to fly a lot as it is a good way to save time and effort. Flying with aircraft is a great invention that helped us grow our civilization and go everywhere very fast. And I don’t think flying will affect the environment because many other things affect the environment like factories and cars. Also, the number of planes is not great like cars and other vehicles.”

After conducting the program:

“ I believe the article argues the idea of feeling guilty about flying a lot, and it plays a role in increasing CO2 and polluting the environment. It shows some numbers about the level of CO2 emitted by airplanes and the highest countries that pollute the environment. We can see that the US and China are on top of the countries that participate in affecting the environment due to the high number of flights every year. I do agree that there should be some limits on the number of flights per person. Some taxes can be added on those travelers who frequently travel so they would control the number of flights and decrease to the minimum. Companies like Boeing and Airbus should invent airplanes that save fuel to protect the environment. But for sure we can not stop people from flying. So, I think we can put some rule on flying, but we can't prevent it at all.”

It is noticed, from the participants’ production, that they could not spot the central argument of the given article. Their answers were not specific, and they were distracted by other statements in the article. Consequently, they could not reflect or write their viewpoints about the argument of the article. It was also apparent that their responses contained a lot of unnecessary details. Almost there was no ability to identify the central argument and produce alternative solutions to the discussed issue.

After conducting the CT program, it was noticed that the responses of the learners’ were more detailed and to the point. Central ideas were focused. They could easily determine the central argument of the article and supported that with relevant information. Most of the responses showed deeper thinking about the introduced argument. Moreover, it was noticed that most learners wrote their opinions about the argument of the article and supported their answers with

During the pre-test, it was noticed that most of the learners could not decide whether the authors of the given articles, questions 5 and 8, could support their evidence or not. Also, the learners could not compose an independent viewpoint and support it with persuasive evidence. Moreover, most of them copied some sentences that do not relate to the answers to the questions. Also, they used weak language in their responses. Following are some of the learners' responses to the 'provide evidence' questions of the pre/post-test:

In question 5, the learners were asked to write if they agreed or disagreed with the authors' claim and to support their answers with evidence.

K.A. answered the question as follows:

Before conducting the program:

"I think the writer gives strong evidence to his idea, and he wrote many reasons why people should stop flying because it is not good for the environment and make co2 more in the air. So, people must not fly a lot and use normal transport like buses and cars."

After conducting the program:

"The point of view of the writer was clear from the beginning of the article. He is against flying a lot as he thinks it affects the environment. To support his point of view, he showed some statistics about the level of pollution and the level of CO2 in the air. He also supported his viewpoint with some reports from England, the US, and some research from the International Council on Clean Transportation. And I do agree with the authors that frequent travelers should try to limit the number of their flights for many reasons. First, the increase in flight numbers encourages

airlines to increase the number of flights. Also, aircraft manufacturers will make more aircraft. So, the environment will get affected more and more.”

The previous answers showed a significant difference between the responses before and after conducting the program. In the beginning, most learners found it hard to spot the main idea of the article. Consequently, they could not easily detect the author’s evidence in the text. Also, they could not form their viewpoints and support them with reasons to convince the researcher.

After conducting the program, their answers were more precise and to the point. They could confidently detect the author’s point of view. Moreover, they quickly highlighted the author’s evidence. They listed many reasons why frequent travelers should decrease the number of flights. This development proved that the proposed CT program was effective in developing the ability of ‘providing evidence’ for adult EFL learners.

- **Providing alternatives**

Providing alternatives is one of the crucial components of critical thinking. Providing evidence refers to the ability to produce genuine solutions and alternatives to support an argument. These alternatives are based on valid reasons derived from the navigated data and discussions.

At the beginning of the experiment, most learners could not come up with creative alternatives to solve the given problems. Also, it was noted in the initial activities of the program. Throughout the program, they could develop the ability to provide alternatives and work in groups to find priorities and make decisions.

In the second session of the CT program, the learners were given a reading passage about ‘Keeping Friends.’ The passage suggested some strategies to keep

best friends. The learners were asked to scan the article then suggest some other alternatives to keep their best friends. Following are some of the learners' answers:

M.G.: *“To keep my friends, I help them whenever they need me. I listen to their problems if they want to talk. I trust them and make them trust me.”*

S.B.: *“I support my friends if they are wrong or right. I call them every day. I help them when they need me.”*

A.F.: *“My friends are everything for me. We spend a lot of time together. I support them when they need, and I respect their thoughts and viewpoints.”*

The previous answers showed how most learners could not suggest alternative solutions to keep friends. They just read the passage and copied most of their answers. Their responses revealed how the ability to provide alternatives was weak and needed to be developed.

In the pre-test, it was also noticed that most learners lack the ability to provide alternatives. Following are some of the learners' answers:

In question 9, the learners were asked to suggest some alternate solutions to reduce the amount of aircraft's emissions to save the environment.

Before conducting the program:

S.H.: *“To reduce aircraft emissions, there should be more rules on the number of flights and passengers who travel every day. Other transportation, such as buses and trains, should be used.”*

S.S.: *“we can use ships instead of aircraft to save the environment.”*

After conducting the program:

S.H.: *“I think aircrafts companies should develop their aircraft to consume less fuel. This means less emission of CO₂ and saving the environment. Also, more rules should be put to control the number of travelers. We can offer them alternatives and discounts on ships, trains, and cars.”*

S.S.: *“To control aircrafts emission, media campaigns can be used to raise passengers’ awareness of the danger of aircraft’ emissions. TV and YouTube videos can also help in spreading the word. Governments can put laws on the number of tickets per passenger every year. Also, aircraft manufacturers should be encouraged to make bigger aircraft that consume less fuel and carry more people.”*

After comparing the answers before and after conducting the program, it was noticed how the learners developed their ability to provide alternatives. At the beginning of the experiment, it was not easy for them to come up with creative ideas to solve a problem. Also, they were not confident in organizing their thoughts. Besides, their use of the English language has improved.

After conducting the program, they became more confident about suggesting alternatives. It was also noticed that most learners came up with more relevant solutions. Moreover, they provided reasons for each alternative. Also, they became more fluent in English than before. That fluency was obvious in their choice of words and phrases and the great development in their speaking skills. Hence, it can be inferred that the proposed CT program was effective in developing the ability to provide alternatives.

Participants' reflection on the Experiment:

Part of the first session of the program was dedicated to the participants' suggestions. The researcher wanted to know more about his participants, so many topics were added based on their suggestions and preferences. Most participants complemented the flexibility of participating in selecting topics and sharing required material.

S.B, one of the participants, stated that she had a problem in dealing with her colleagues and managers at work. She believed she needed to work on her soft skills, so a topic about soft skills was added to the program. The participants had to google it before the following session. Later after studying the topic, Shaima stated the following;

"Before I had many issues with my colleagues and supervisor and I lost my job, but now after this lesson, I knew that success is not only about the hard skills but also about the personality and the soft skills, and I will try to change myself to keep my next job."

S.S, who works as a KG teacher, wanted to improve her teaching skills and understand her students better, so a topic about ' Learning styles' was added. The participants were asked to read about it first before the session. After the session, she stated that she enjoyed the topic and would apply what she learned with her pupils;

"I liked the topic of 'learning styles' as I didn't know much about it before. I think all teachers should read about it. I will apply what I learned with my students."

By the end of the program, the learners were given an online ‘course evaluation survey’ (see appendix F). The purpose of the survey was to know how they perceived and benefited from the program. The survey included questions about what they liked and disliked about the course, how they evaluate the experiment of learning through e-communities, and their overall satisfaction on a scale from one to ten. Also, they were asked to state their suggestions to improve the course and to make it an interesting experience. Following are some of the participants’ reflections:

“ The topics discussed during the course were interesting and useful for me. I became able to practice language, and learned new vocabulary and information.”

“ Generally, it is beneficial for serious students. For me, it was an amazing experience.”

“ Before the course, I did not know much about critical thinking. But now, I feel I can think better and analyze any situation in my life.”

Most of the participants do morning shifts, so they believe that online courses are a practical solution for them to learn and develop their language. Their overall evaluation of the conducted e-learning program was positive, and that was obvious in their answers to the question ‘ What are the most important takeaways for you from the course?’. Following are some of the participants’ responses::

“ Online courses save me time, and I can take it anywhere.”

“ It helps me when I am busy and suitable for my time, and I can learn from any place.”

“ Online courses are flexible in time and place, so I have no problem with it if the traditional courses are unavailable.”

“ I think we can’t stop traditional courses at all. But also online learning is important especially for adults who have family responsibility and jobs.”

When asked to suggest improvements to the course, some participants stated that the overall experience was terrific. However, they were disturbed by the difficulty of some words or some unexpected technical issues during the sessions:

“ Nothing I didn’t like except the instability of the internet connection.”

“Some new words were difficult for me.”

“ I suggest taking another course, and next time make it longer.”

“ I learned many things in the course, and I will apply the analysis techniques with my students and let them think more rather than giving them direct questions. I will also use different leaning styles like pictures, games, and music and improve my soft skills in my work area.”

In general, the participants’ reflection on the applied program was very encouraging, and they showed a positive attitude towards it. Besides, they assured that they had gained better thinking techniques, and they became more confident about providing their ideas with reasons and getting involved in discussions than before. Also, they stated that it became more comfortable for them to analyze texts into the essential elements and to get the main idea of a text or a paragraph.

sessions. Therefore, it can be concluded that the proposed program based on e-community contexts was effective in developing the English language through CT activities.

- **Increased soft skills**

Some participants admitted that they lack some soft skills such as communication, teamwork, and problem-solving. So, the researcher added a topic about ‘Soft skills,’ and the participants were asked to practice what they learned every session, present their work and talk more about their life experiences and link this to the topics they studied. By the end of the program, they reported that they feel more confident about speaking English, thinking critically, dealing with others, and solving problems. The researcher spotted that improvement in the open discussion time and their presentations.

- **Increased self-confidence**

Many participants expressed their lack of confidence at the beginning of the program, mainly when they spoke English. As the researcher was trying to spot their needs, he added many activities to the program to help them increase their self-confidence. Daily presentations and ‘open discussions’ were two of these activities in which they were given a problem and were asked to discuss it to reach a final resolution. During these activities, they were not interrupted or stopped, and the feedback was given after they finished. In the beginning, they were not used to this kind of activity, and they needed time to think about the right words to put them together, but after some sessions, their self-confidence increased, and they could speak and think faster than before. Also, the agreement that English would be the only language to be used and that Arabic was not allowed helped them to increase their self-confidence by the end of the program.

4.3 Conclusion:

This chapter discussed the qualitative and quantitative results and the analysis of the results. It was noted how the proposed program could develop adult EFL CT abilities throughout the experiment. The participants' feedback and responses revealed how they reacted and engaged positively during the study as the program focused on their needs and interests. Moreover, using e-community contexts proved high effectiveness in developing EFL adult learners' CT. Therefore, it can be inferred that the proposed program based on e-community contexts was significantly effective in developing EFL adults' CT. The next chapter presents a summary of the study in addition to recommendations for further research.

Chapter Five
Summary, Conclusions, and
Recommendations

Chapter Five

Summary, Conclusions, and Recommendations

This chapter presents a summary of the present study, along with the findings and conclusions. It provides a brief description of the problem of the study, study questions, and participants. Besides, it discusses the pedagogical implications, recommendations, and suggestions for further research.

5.1 Summary

Based on the researcher's observation, related studies, dealing with and teaching adult EFL learners, the researcher noticed that most EFL adult learners have a problem with thinking critically and dealing with CT activities. He also noticed that many EFL adult learners have a problem with attending classes due to lack of time or distant places of residence, and most of them preferred using online platforms for learning the English language.

The main aim of the present study was to investigate the effect of applying a program based on e-community contexts to develop the CT abilities of a group of EFL adult learners. In this regard, the study tried to answer the following main question:

- **What effect would a proposed program have on the development of EFL adult learners' critical thinking?**

The study also tried to answer the following sub-questions:

1. **What is the existing level of EFL adult learners' critical thinking?**

The question was answered through a pilot study on a group of adult EFL learners. It was also answered through an open discussion with the same group after the pilot test. Also, administering the CT pretest to the study group answered the same question.

2. **What are the components of a program that lead to developing EFL learners' critical thinking abilities?** This question was answered by reviewing previous studies of the literature of CT. This review helped organize the CT components list.
3. **What are the proposed strategies and online activities that lead to developing EFL adult learners' critical thinking?** To answer this question, the researcher designed and modified a set of online activities to develop EFL adult learners' CT. Besides, he conducted a variety of teaching strategies, such as group discussions, to reach the objectives of the proposed program.
4. **What is the effect of using a program based on an e-community for developing EFL adult learners' critical thinking?** In order to answer this question, the proposed CT program was administered to a group of EFL adult learners, and a post-test was conducted. The results of the pretest and the post-test were compared to investigate the effect of the proposed program. Finally, a qualitative analysis was applied to check the learners' performance and feedback.

The following instruments were used in the present study:

1. A critical thinking pre/post-test.
2. A critical thinking rubric.
3. Course Evaluation Survey.
4. Instructor's reflective log.

A group of EFL adult learners (n=20) was invited to participate in the study. Their ages ranged from (20 to 30) years old. Before conducting the proposed CT program, a CT test was administered to the learners. After finishing the program, the CT test was re-applied to the same group to assess the effect of the proposed CT program.

5.2 Findings of the Study

The following findings aroused from the present study:

- The proposed program was effective in developing adult EFL learners' critical thinking abilities in general.
- Using e-communities was useful in developing adult EFL learners' critical thinking.
- 'Identifying elements of a problem' was at the top of the developed skills.
- 'Data analysis' took the second rank in development.
- 'Providing evidence' was the least skill developed.
- The effect size of the program was large.
- Participants were generally satisfied with the CT program, and they showed a positive attitude towards it. They also expressed satisfaction with the use of e-communities as an effective alternative to traditional methods.

5.3 Pedagogical Implications

- The study revealed the importance of CT for adult EFL learners. It showed how CT is essential in solving social problems that adult learners might encounter in their lives.

- E-community contexts were proved to be effective in developing adult EFL learners' CT. Besides, e-communities could be successful alternatives to traditional classrooms.
- All stages of teaching could be done through e-communities. Warming up, teaching lessons, and evaluation and assessment could be provided through e-communities.
- The proposed program proved its validity in developing adult EFL learners' CT abilities.
- Active learning activities and group discussions helped the learners to establish a strong bond with their classmates as well as the researcher. They were encouraged to participate and help each other. This atmosphere played a vital role in developing the learners' collaborative work.
- Using visual aids, such as graphic organizers, illustrations, videos, and PowerPoint presentations, has a significant effect on adult EFL learners.
- Sharing the predetermined objectives of the program with the participants helped in facilitating the researcher's mission.
- Freedom of learning makes the learners more responsible and positive for their learning.

5.4 Conclusions

The present study aimed to investigate the effect of a program based on e-community contexts to develop EFL adult learners' CT. To examine the effectiveness of the program, the researcher implemented several instruments. Based on the qualitative and quantitative results, it can be concluded that the proposed program was effective in developing EFL adult learners' CT. Moreover, the participants showed improvement and a positive attitude towards the proposed

training program and expressed their intention to apply critical thinking strategies in the future. Based on the previously mentioned findings, it can also be concluded that e-communities were proved to be effective in developing EFL adult learners' critical thinking abilities. Also, language and thinking were strongly combined in the activities of the program. This combination led to the development of the participants' language along with CT abilities. It is worth mentioning that the program can be more effective if applied for a more extended period.

5.5 Recommendations

Based on the results of the present study, the researcher suggests the following recommendations:

- Activities based on CT components such as data analysis, providing evidence, and gathering data should be implemented in EFL adults' curriculum. This implementation would help adult EFL learners think creatively and produce genuine solutions rather than just consuming knowledge.
- E-communities are proved to be economical and safe contexts for learning, especially during natural disasters, social disorders, or epidemics, such as the COVID-19 pandemic that the world experienced in 2020.
- Universities, schools, and educational institutions should develop their e-communities and create several educational tools to help learners improve their learning and think critically. For that, more funds should be allocated to designing integrated educational e-communities.
- E-communities could be an effective alternative to traditional classrooms for adult learners, especially those who do not have enough time or ability to attend classroom-based courses.

- English language teachers need adequate training before conducting an e-community course to get familiarized with the required technical tools.
- Student teachers should be trained on teaching CT activities in class.
- Global issues such as social, economic, political, and environmental issues should be implemented in English language programs to encourage EFL adult learners to think critically and produce effective solutions.
- Adult learners should participate in choosing topics that match their needs and preferences.
- Designing educational programs should be based on the learners' needs.
- Learning CT helps adult learners acquire the English language easier. For that, CT should be given more attention along with the other four skills of the language.

5.6 Suggestions for Future Research

Based on the results of the present study, the following research issues are suggested for further research:

- Replication of the study with young EFL learners at different grade levels in schools.
- Investigating the effect of using other language skills in programs based on e-community contexts. For example, investigating the effect of using e-communities in developing EFL learners' writing and reading.
- Conducting strategy training programs using e-communities to develop other CT components for adult or young learners.
- Investigating the effect of using e-communities in faculties of Education on improving EFL student teachers' teaching skills.

- Investigating the effect of using “e-communities” as a possible assessment context instead of traditional contexts.
- More studies could be conducted to investigate the effectiveness of the different features and tools of e-communities in developing EFL learners’ language acquisition. For example, “investigating the effect of social media or video conferences in developing EFL language acquisition.”

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Appendices

Appendix (A)

Pilot Critical Thinking Test

Appendix (A): Pilot Critical Thinking Test

Read the following questions and answer ALL of them on a separate sheet:

1. What do you know about critical thinking?
2. What do you prefer; learning in real classrooms or online-based learning? Why?

3. Read the passage, then answer the questions:

Ali would like to start a business. He has the required experience in the field of that business, but he does not have enough money to fund his dream. He tried to get help from his parents, but unfortunately, they already spent all the money they had to buy a new house. Ali is disappointed now and is about to give up his dream. His friend, Omar, told him that there are so many other ways to fund his business.

- a. What is the problem/problems that Ali face? (**Identifying elements of a problem**)
- b. In your opinion, what are the required elements to start a new business? (**Gathering data**)
- c. Suggest other solutions that would help Ali fund his project. (**Providing alternatives**)

4. Read the following passage then answer the questions:

Every citizen should have access to a free, universal health care system. This would allow medical professionals to concentrate on healing their patients rather than dealing with insurance procedures and liability concerns. Each person has a right to be cared for, and having access to free

medical services provides patients with the opportunity for regular checkups when otherwise they may not be able to afford them.

- a. What is the main argument of the passage? (**Identify central argument**)
- b. Do you think that every citizen should have access to free health care? Provide your answer with evidence. (**Providing evidence**)
- c. Do you agree with the suggested evidence in the passage? Why? (**Data analysis**)

Appendix (B)

Critical Thinking Components check-List

Appendix (B): Critical Thinking Components List

CT skills	Description	emerging	developing	Fluent
Identifying elements of a problem	<p>Refers to learners' ability to recognize the main elements of a subject, topic, or problem easily. This recognition helps in analyzing and collecting data to solve a problem.</p>			
Data analysis	<p>Refers to learners' ability to examine and evaluate data or information by breaking it into its components to uncover their interrelationships. This analysis helps in making decisions and solving problems.</p>			
Gathering data	<p>Refers to learners' ability to gather relevant data and information.</p> <p>This data can be gathered from different contexts such as charts, graphs, diagrams, spoken language, and articles.</p>			
Identifying the central argument	<p>Refers to learners' ability to spot and understand the central argument of a text, conversation, or problem.</p> <p>This ability enables</p>			

	learners to support their Argumentation with related causes.			
Providing evidence	Indicates the learners' ability to provide incontrovertible evidence to support the establishment of a conclusion or argument based on logical givings.			
Providing alternatives	Indicates the ability to produce genuine and creative solutions and alternatives to support an argument. These alternatives are based on valid reasons derived from the gathered data.			

Appendix (C)

Critical Thinking

Test for Adult EFL learners

Introduction

This test is designed to measure adult learners' CT skills before and after conducting the proposed program. The entire test was conducted online through e-community contexts such as ZOOM, YouTube, and some websites.

Test components

The test contains twelve questions that measure adult learners' CT skills. Articles, videos, and some illustrations were used in the test.

Purpose of the test

This test is designed to assess adult learners' CT skills through an e-community context.

Duration of administering the test

The length of the test is three hours. Each question is 15 minutes.

Appendix (C) – Critical Thinking Test

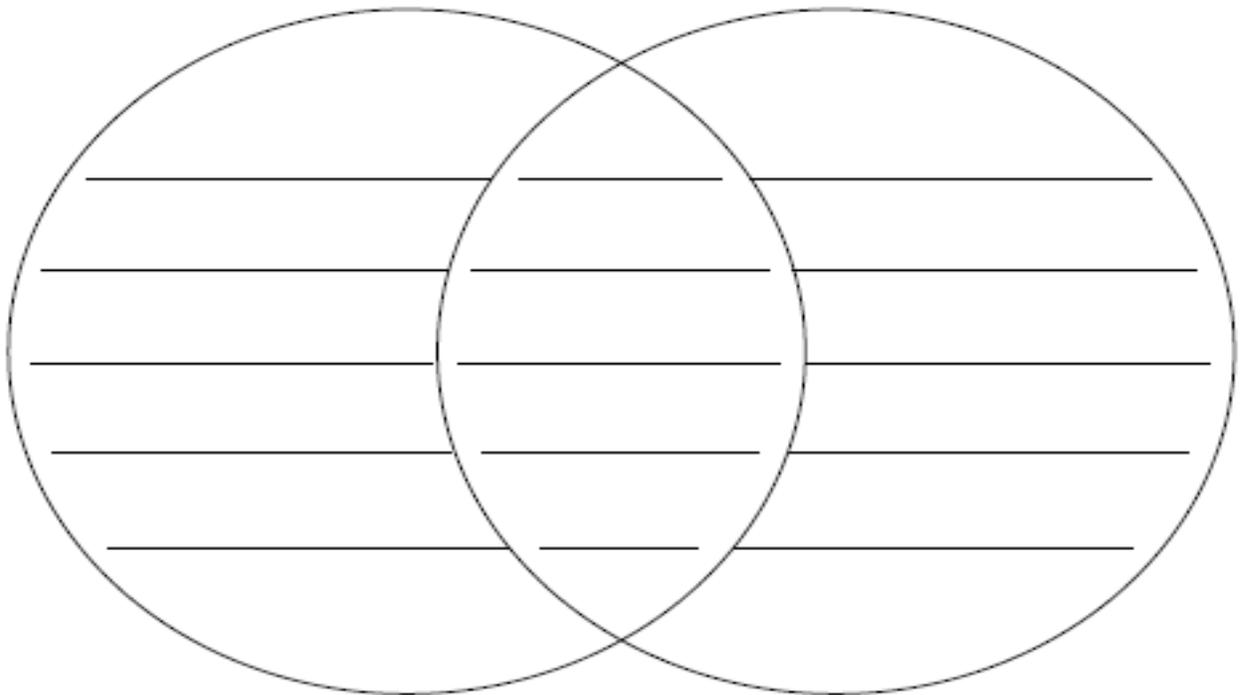
Section I

1. Think of a movie, narrative or story you read recently then analyze it as shown in the following table: **(Data Analysis)**

Item	Answer
Title & author	
Setting (when and where it took place)	
Main characters	
Plot (sequence of events)	<ul style="list-style-type: none">• Rising actions (beginning) • Climax (middle) • Falling actions (resolution/conclusion)
The theme (the main idea, lesson, or message of the story)	
What did you like about it?	

2. Read the following passage from (www.help-teaching.com), then compare and contrast Mary and Tracey using the Ven diagram: (Data analysis)

Mary and Tracey are twin sisters. They are fifteen years old. There are many things that they have in common. Mary loves to listen to music, and Tracy likes music as well. Mary likes inspirational music, but Tracey likes hip hop. Both girls attend California Middle School. They get good grades and work hard to learn. Mary has a temper and very often fights with her peers, but Tracey is very quiet and passive. Tracey never fights with anyone. Mary scores really well on tests, but Tracey gets very nervous during tests and sometimes does not score very well. Tracey can read and write fluently but struggles with taking tests. Mary wants to be an astronaut when she is older, so she studies a lot of math and science. Tracey wants to become a biologist, so she studies math and science also. Both girls live with their mother and father in a small family home.



3. You work as a wedding planner. You have to arrange a wedding party that a hundred people are going to attend. You are required to gather information and prepare the items that will help you arrange a successful wedding. List all the possible items and information that will facilitate your task.

(**Gathering data**)

4. Inventing cars has changed our lives. Nowadays, millions of people depend on them every day. A car consists of many parts that work dynamically together to run smoothly. Use Google to **collect information** about the main parts of the car and how they work together. The following keywords might help you:

(car components – auto parts – car body and main parts – car parts vocabulary)

(**Gathering data**)

5. Examine the following advertisement and identify the main elements that make it an attractive one for the audience. Explain why these elements make the ad attractive. (**Identifying main elements**)



6. Read the following paragraph then summarize it highlighting *the main ideas* and pick an appropriate title: (**Identifying main elements**)

It is estimated that over twenty million pounds of candy corn are sold in the US each year. Brach's, the top manufacturer, sells enough candy corn to circle the Earth 4.25 times if each piece were laid end to end. That is a lot of candy corn, but that is nothing compared to the production of Tootsie Rolls. Over 64 million Tootsie Rolls are produced every day! However, even Tootsie Rolls have got nothing on the candy industry's staple product: chocolate. Confectioners manufacture over twenty billion pounds of chocolate in the United States each year. Now that is a mouthful!

Be specific and clearly explain the main ideas in the paragraph.

.....

Section II

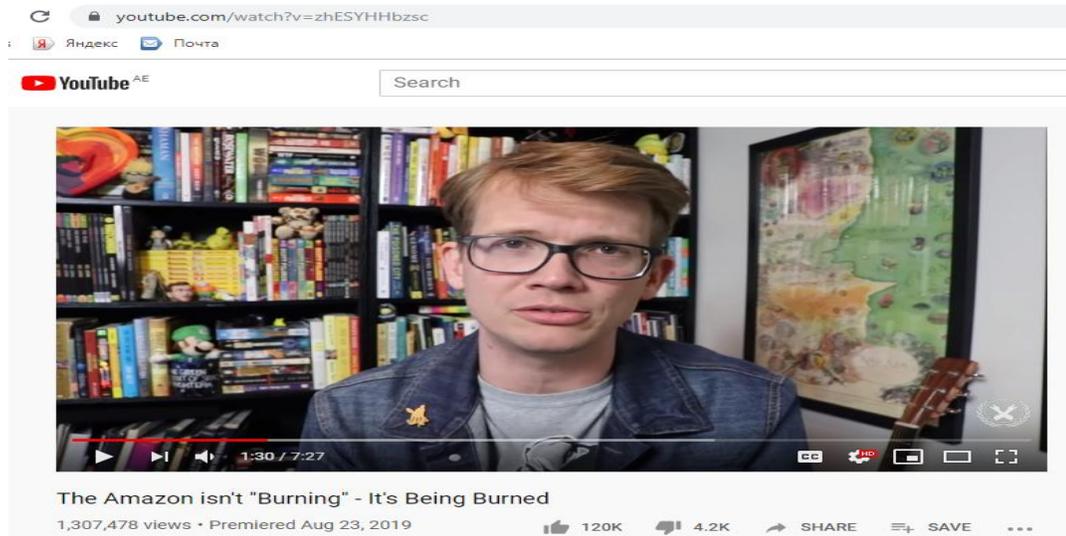
A. Read the following article from the New York Times, then answer the questions 4, 5 and 6

:(<https://www.nytimes.com/interactive/2019/10/17/climate/flying-shame-emissions.html>)



7. What is the main claim/argument of the article? Do you agree or disagree with it? (**Identifying the central argument**)
8. How does the writer offer evidence to support his claim? Support your answer with examples from the article. (**Providing evidence**)
9. Suggest other alternatives to decrease the amounts of aircrafts' emissions. (**Providing alternatives**)

B. The following video, entitled ‘The Amazon isn’t burning. It’s being burned’ raises an argument on whether the Amazon fires are natural or done on purposes. Watch the video then answer questions 7,8, and 9. Visit(<https://www.youtube.com/watch?v=zhESYHHbzsc>)



10. What is the central argument of the second video? Do you agree or disagree with this point of view? (Identifying the central argument)

11. Do you believe the presenter of the video offered strong evidence for his claim? Why? (Providing evidence)

12. Introduce creative solutions to control the harmful effects of the Amazon fires on the planet. (Considering alternatives)

Appendix (D)

Critical Thinking Rubric

Appendix (D): The Critical Thinking Test Rubric

CT -kills	Emerging (1)	Developing (2)	Fluent (3)	score
Identifying elements of a problem	A little ability to identify the components, assumptions, reasons for a problem, or topic.	Identifying main elements of problems, but cannot explain them clearly or sufficiently.	Clearly identifies main elements of problems and successfully explains why/how they are problems or questions; and, addressing their relationships to each other.	
Analyzing data	Almost a little ability to analyze or evaluate data of a topic or problem.	Demonstrating the ability to analyze, and evaluate data, examine the information and understand what it means.	<ul style="list-style-type: none"> - Demonstrating the ability to make observations about information. - Identifying connections between information and conclusions. - Adequately explain to others the implications of that information. 	
Gathering data	Almost a little ability to gather relevant data and information of a particular topic or problem.	Some data are appropriately gathered but not explained clearly.	<ul style="list-style-type: none"> - Demonstrating the ability to gather information from charts, graphs, diagrams, spoken language, and documents. - Easily collect data and explain it in light of a specific topic or issue. 	
Identifying the central argument	<ul style="list-style-type: none"> -Demonstrating a little understanding of the central argument. -Hardly find the main argument of a given topic 	Demonstrating a basic understanding of the central argument.	Clearly identifies the main argument of a particular topic or problem and demonstrates a thoughtful understanding of its elements.	

	or problem.			
Providing evidence	Almost a little ability to provides weak evidence that does not support the argument.	Demonstrating relevant evidence that partially supports the argument.	Demonstrating the ability to provide strong evidence that supports a viewpoint or a conclusion.	
Considering alternative viewpoints	Demonstrating a little ability to reproduce genuine alternatives to solve a particular problem or issue.	Demonstrating the ability to understand and consider alternative viewpoints that might partially solve a particular problem or issue.	Demonstrating high ability to generate genuine ideas and alternatives to solve given problems and issues based on logical reasons.	

Appendix (E)

The Critical Thinking Program

For Adult EFL Learners

Outline of the Critical Thinking Program

Overview

In a rapidly changing world, e-learning and critical thinking have been given a great interest in education. Therefore, there is a persistent need among adult learners to know how to think critically to overcome their life challenges and to come up with genuine solutions to their problems. However, most learners get confused when they are asked to solve problems using their critical thinking abilities. This is due to the absence of teaching critical thinking in school activities and curriculum.

Throughout this program, the learners go through various critical thinking activities via e-community contexts. They are given many challenges and social topics and are asked to analyze them and raise arguments to come up with solutions and alternatives. Data analysis, Argumentation, and discussion are some of the strategies used in this program.

The program is thoroughly conducted online. The learners have to attend the classes on the ZOOM app. ZOOM is one of the popular apps that is used as a virtual platform for video and audio conferencing and webinars. ZOOM provides a set of features that make it an effective alternative to traditional classrooms.

Aim of The Program

The proposed program aims at developing EFL adult learners' critical thinking through a program based on e-community contexts. The program enables learners to improve their CT abilities through a set of online activities that are designed carefully to encourage them to think critically.

Performance Objectives

At the end of the program, the learners are expected to:

8. Identify the main elements of a problem or topic.
9. Analyze and evaluate data and break it down into smaller components to solve a problem.
10. Gather information smoothly to uncover the reasons behind a problem or to support an adopted argument.
11. Provide valid alternatives and solutions to solve problems.
12. Identify the main argument of a context.
13. Provide reasonable evidence to support a viewpoint or argument.

Content

The program includes eight intensive online sessions. Therefore, there is no real contact between the researcher and the learners. The first session is dedicated to introducing the program, setting the governing rules of work, and conducting the pre-test. The last session is assigned for the post-test and the participants' evaluation survey.

The program depends on a variety of activities that enable the learners to develop their critical thinking abilities. Hence, PowerPoint presentations, videos, e-stories, graphic organizers, and detailed illustrations are used throughout the sessions. This variety makes the program more attractive and effective as it suits all different learning styles.

Learning/teaching techniques

In this program, collaborative learning is the primary teaching/learning strategy. Therefore, learners are encouraged to work together in different activities

such as brainstorming, debate, graphic organizing, think-pair-share discussion, and problem-solving activities. Also, the teacher's role is limited to monitoring and guiding the learners. In many activities, the learners are divided into smaller groups or pairs and are given problems to solve.

Differentiation and technology are also considered in the activities of the program to suit different learning styles, such as audible learners, and visual learners. Therefore, colorful images, videos, music tracks, graphic organizers, and e-stories are implemented in the activities of the program.

Assessment

The assessment strategies used in the program vary between diagnostic, formative, and summative assessments. Diagnostic assessments are used before each lesson to measure their prior knowledge towards the introduced topics and to help the researcher plan future lessons. To achieve this, the researcher uses pre-course questions and warm-up quizzes to see how far they know about the introduced topics.

Formative assessment is conducted to assess the learners' performance during the course and providing feedback. Techniques such as THINK-PAIR-SHARE, self-check quizzes, discussions, and observations are implemented during the sessions.

Summative assessment is conducted after each lesson and at the end of the program to evaluate the learners' performance and to decide whether they can advance or not. For that, authentic assessments such as projects, lesson tests, speeches, and videos are used after each lesson.

Appendix (E): Critical Thinking Program

Session (1) Introduction to the Program

Overview:

The first session is dedicated to introduce the program, introduce ZOOM as the primary media of the program, receive suggestions, and conduct the pre-test. CT is also introduced.

Performance objectives:

By the end of this session, the students are expected to:

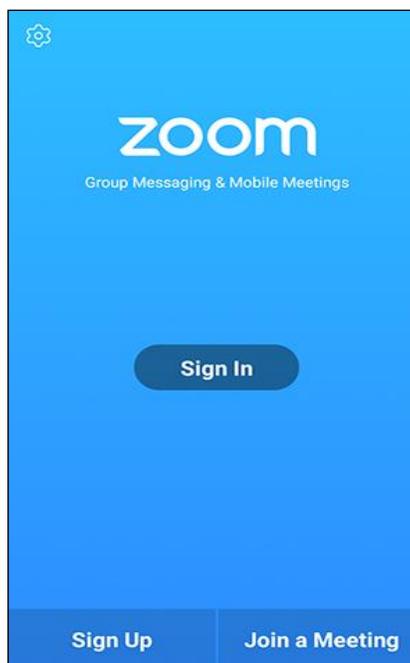
- Know the organizing rules / what was expected from them.
- Learn how to deal with ZOOM as the virtual media of the program.
- Know how to answer the exams and send their assignments.
- Take the pre-test & questionnaire.
- To know about CT and its components.

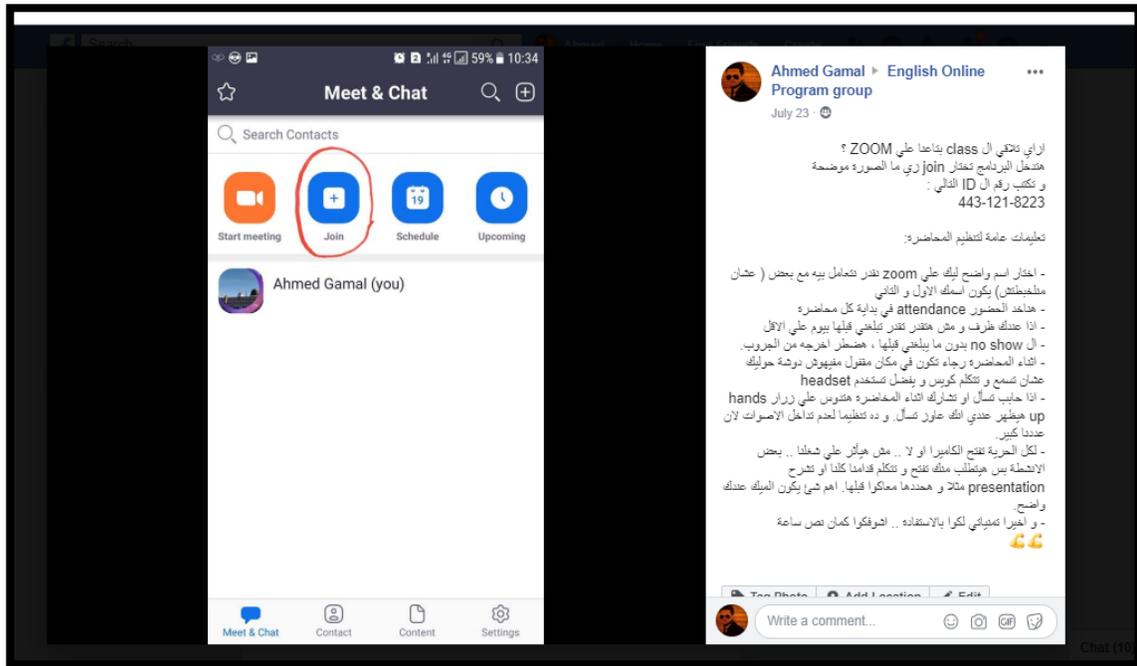
Procedures:

- The researcher created a group on Facebook and named it ‘English Online Program.’ (<https://www.facebook.com/groups/497469974417833/>)
- As the program was conducted via e-communities, the purpose of the Facebook group was to gather all the participants in one place. It also helped the researcher inform them of the schedule, receive their work, and answer their questions.



- The researcher then instructed the participants to download ZOOM and gave them a briefing on how to use it. Then, they were also given the class ID number to join the session.





- PowerPoint slides were used to display the content of the sessions. The following screenshots show some of the slides of the first session:

SESSION 1 OBJECTIVES

- Getting to know each other
- Summary of the program
- Course breakdown
- Work rules / what is expected from you
- How to answer the exams
- What is critical thinking & its components?
- Your Questions
- Pre-test & questionnaire.

GETTING TO KNOW EACH OTHER

Get to Know Each Other!

nearpod

WORK RULES / EXPECTATIONS

- ⦿ Punctuality/ attendance
- ⦿ Participation (questions - discussions)
- ⦿ Working together
- ⦿ Hand in assignments & projects on time
- ⦿ Providing quiet place and stable internet connection
- ⦿ Raise your hand if you want to ask or participate
- ⦿ Maximum 5 min lateness

COURSE BREAKDOWN

- ⦿ 1- Friends
- ⦿ 2- Culture Shock
- ⦿ 3- Keeping your job
- ⦿ 4- Learning Styles
- ⦿ 5- Improve your memory
- ⦿ 6- Global village

- At the end of the session, the participants were given the CT pre-test.
- The researcher also provided the participants with some website and videos as a guide to read and know more about CT, analysis, raising arguments and questioning;
- What is critical thinking (CT) :
<https://www.youtube.com/watch?v=J0yEAE5owWw>
<https://www.youtube.com/watch?v=dItUGF8GdTw>
<https://www.skillsyouneed.com/learn/critical-thinking.html>
- What is analysis?
<http://www.theenglishdepartment.co.uk/reading-for-understanding/analysis-questions-revision/>
<https://www.youtube.com/watch?v=LdYCEdPJdSg>

- How to start a speech?

<https://www.youtube.com/watch?v=w82a1FT5o88>

- What is Argumentation?

<https://www.thoughtco.com/what-is-argumentation-1689133>

- The principles of Argumentation?

<http://www.csun.edu/~hcpas003/argument.html>

- The power of effective questioning

https://www.youtube.com/watch?v=1dO0dO_wmE

<https://www.youtube.com/watch?v=5mnIP2MVq58>

Session (2)

Lesson One: You have to have Friends

Performance Objectives:

By the end of this lesson, Ss are expected to:

- Learn how to identify **the main elements** of a text or a problem.
- Reflect their personal experiences and share them with the entire class.
- Find evidence and prove their points of view.
- Learn new idioms.

Teaching Aids:

ZOOM app – videos – PowerPoint presentation – images

Brain Storming and warm-up:

- To stir the students' prior knowledge, the researcher introduced the lesson by asking the following questions;
 - ‘Who is your best friend?’
 - ‘ How did you make friends with them?’
 - ‘ What is the difference between an introvert and an extrovert person?’

Procedures :

- The researcher is going to introduce the new CT skill with explanations and examples.

Activity (1)

- Students will be asked to scan the first paragraph of the lesson and find the main conclusion of it. The same thing will be done with each paragraph.

- Then the students will be divided into groups.
- Each group will be given a question based on a paragraph.
- They will be encouraged to discuss the question together and find answers based on proof and evidence from the text.
 - Each group will assign a 'speaker' who will read the responses of his group.



Activity (2)

- Ss are going to watch the following video entitled 'Guide to Maintaining Friendships' and take notes.

See (<https://www.youtube.com/watch?v=o9uISfCGMUs>)



- After watching the video, Ss are going to identify the tips given in the video to keep their friends.
- Ss are going to answer the following questions :

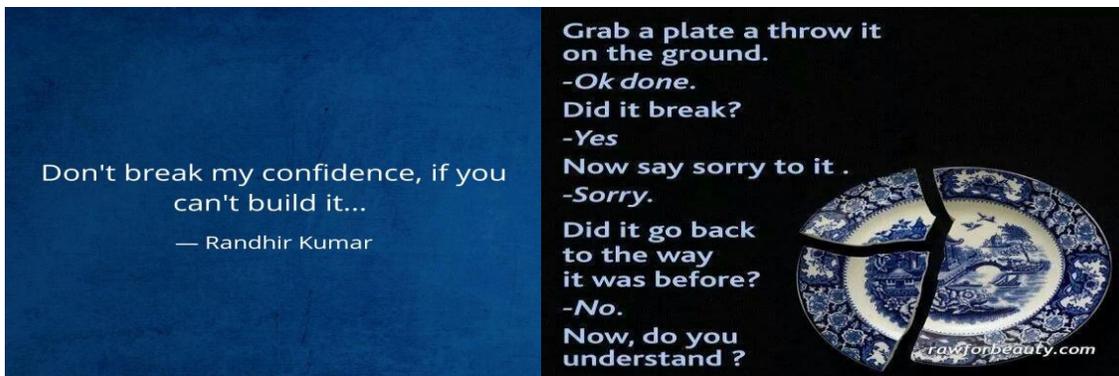
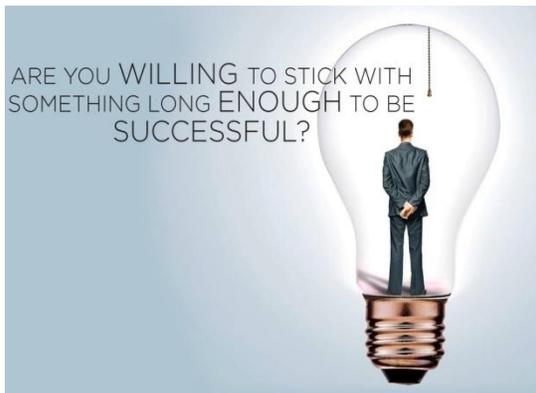
Answer the following:

1. Identify the tips shown in the video to keep friends.
2. What are the common obstacles that affect any friendship?
3. Do you agree that geographical distance can affect a friendship?
4. Suggest further solutions to keep your friends.

Activity (3):

- Ss are going to learn a bunch of phrasal verbs and idioms used in daily life conversations.
- First, Ss are given some exercises to measure their knowledge; then the idioms will be explained as shown in the screenshots:





Assessment:



Home Assessment

- Find someone in your family circle who succeeded in keeping a friend for a long time.
- Interview him/her by asking several questions related to the main topic of the lesson; Friendship.
- *These questions may include :*
 - -How did you meet your best friend?
 - -Why is he/she your best friend?
 - -How did you keep this friendship all these years?
 - -What makes a good friend?
 - -What are the responsibilities of friends towards each other?
 - -The interviews could be *filmed or recorded or just written down.*
 - **Post your work on the FB group after you finish.**

Students will be asked to do the following **project**:

- Find someone in your family circle who succeeded in keeping a friend for a long time.
- Interview him/her by asking several questions related to the main topic of the lesson; Friendship.
- These questions may include :
 - How did you meet your best friend?
 - Why is he/she your best friend?
 - How did you keep this friendship all these years?
 - What makes a good friend?
 - What are the responsibilities of friends towards each other?
- Students can add more questions on their own.
- Family members could include parents, grandfathers, grandmothers.
- The interviews could be *filmed or recorded or just written down*.
- Whoever finishes his/her project can post his results on the Facebook group.

Session (3)

Lesson Two: Culture Shock

Performance Objectives:

By the end of this lesson, Ss are expected to:

- **Analyze data** and break it down into smaller segments.
- Read and **analyze an e-story**.
- Learn about different cultures and reflect on their own experiences
- Develop their **argumentation skills** through discussion
- Learn about parts of speech in English
- be able to use new idioms in conversations.

Warming up:

The following question will be given to Ss:

What kinds of experiences can you gain from traveling to and living in other countries?

Procedures:

Activity (1) Analyzing Data

- Analyzing data will be introduced, and Ss will discuss its importance in solving problems and decision-making.
- Then, Ss will be asked to look at the cover of a short e-story entitled “ The Forest Princess” and to guess what it will be about.



READ THE SHORT STORY THEN ANALYZE IT:

A long time ago, in a big beautiful forest there lived many animals. The animals in the forest were happy and they lived a wonderful life. One reason that the animals were happy was because in the forest there also lived a little princess. The little princess had long curly, blonde hair. Her name was Marina, a beautiful name for a beautiful little princess.

Every morning she would go to the park near the river to play with her friends. Mrs. Rabbit, Mr. Skunk and the very young deer were her best friends.

One day they were playing together. They were having so much fun that they lost track of the time. The sun went down and it became dark. The little animals were afraid to go home alone. Princess Marina had an idea. She said, "Why don't you all come to my Grandpa's home with

me. Grandpa doesn't mind it when I bring my friends to his place."

When Marina and her friends arrived at her grandpa's house, he invited them in. He gave them all the treats that they could eat. After they ate, they all played games.

After a while, Grandpa said, "It's time for bed now." Grandpa gathered all the friends around and told them a bedtime story. Before long everyone was fast asleep. In the morning, it was safe for the animals to go home. Everyday Marina and her friends still play but now they make sure that they go home before it gets dark.

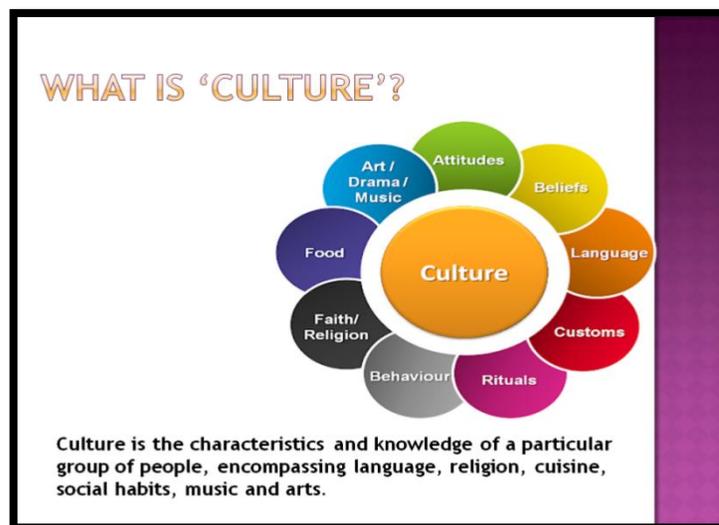


- After reading, Ss will be asked to analyze the story, discuss it, and use the following **graphic** organizer to gather data and analyze it from the e-story.

Name _____	Date _____
Five W's Chart Fill in each row with details that answer the question.	
What happened?	
Who was there?	
Why did it happen?	
When did it happen?	
Where did it happen?	

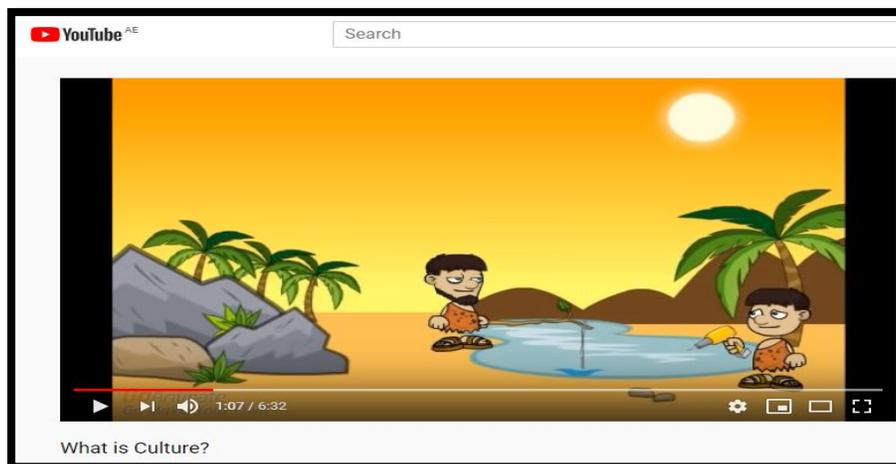
- Ss answers will be shared and discussed with T and other Ss.
- T will ask Ss to think of an alternate solution to the problem of the e-story through the following questions;
 - Do you think they could do something better to reach their home and exit the forest safely?
 - Suggest another ending to the story.

Activity (2) Learning about Cultures



- Ss will be asked about what they know about a culture and its components.
- A video about cultures will be played, and Ss will be encouraged to take notes during watching. See

(<https://www.youtube.com/watch?v=q2Bj8OCmxb4>)



- Then they will be asked to **identify the main elements** of a culture.
- The researcher will give further discussion questions to assess their understanding such as;
 - What makes a culture unique?
 - Do you believe it is essential to know about other cultures? Why?
 - If you moved to live in a different culture, would you give away your original culture? Why?

Activity (3) Reading Comprehension

- Ss will be asked to read the title, scan the journals, and answer the question in the green box; *What kinds of experiences can you gain from traveling to and living in other cities?*

Culture Shock

What kinds of experiences can you gain from traveling to and living in other cities?

Kit-ken Lim, a student from Taipei, Taiwan, is studying in Chicago. The following excerpts are taken from her journal during her first three months in the United States.

August 31
People often refer to Taipei as "The Sleepless City," but I didn't understand why until I got to Chicago. I was window-shopping with another student this evening when suddenly the store owners along the street started pulling down their gates and locking their doors. Soon the whole street was closed, even though it was still light out. This is something I've never seen in Taiwan, where the busiest streets "stay awake" all night. You can go out to restaurants, stores, and movies even long after midnight.

September 5
After the first week of class, I've found some differences between Taiwanese students and American students. Whenever a teacher asks a question, my classmates blurt out their answers almost immediately. And some of them interrupt the teacher. In Taipei, we're usually quiet in class so the teacher can finish on time. We tend to ask the teacher questions afterward. I don't know whether it's acceptable here for students to ask teachers questions after class.

October 6
I met a really interesting girl in my neighborhood cafe. I was writing a letter to my mother, and she asked me what language I was writing in. We ended up talking for about an hour! People in Chicago seem very comfortable with each other. It seems quite natural for two people to just start talking in a cafe. This is something that doesn't happen in Taipei. At home, I would never just start chatting with a stranger. I like that it's easy to meet new people here.



- Then, they will be asked to finish the questions A & B and share their answers.

A Read the article. Then match each journal entry with its main idea.

1. August 31	a. People in Taipei tend to be more private than in Chicago.
2. September 5	b. Business hours in Chicago are much shorter than in Taipei.
3. October 6	c. American students are more outspoken than Taiwanese students.

B Complete the chart.

	Chicago	Taipei
1. When does the city shut down?
2. How do students behave in class?
3. How do people act toward strangers?

C Pair work How do things in your city compare with Taipei? with Chicago?

Activity (4) Culture Game

- In this game, Ss will see a picture of a traditional costume and try to guess which culture it is.
- Ss will be divided into two groups; each correct answer will be 1 point.
- The winner group is the group that gets a higher score.
- Here are some of the costumes they will be asked to guess;

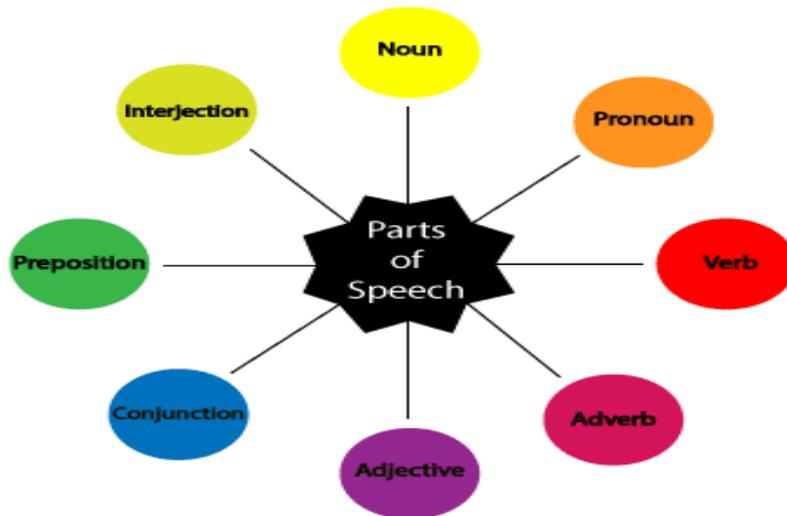
GUESS THE CULTURE OR COUNTRY





Activity (5) Parts of speech & New Idioms

- Parts of speech in English will be introduced through the following illustration;



- Ss will be given a worksheet to apply and differentiate between the eight parts of speech.
- Then, they will be asked to pick some parts of speech and put them in sentences.

Parts of Speech

did me blue Mary I she
and America know quickly in
excellent on Ouch! but cat
under Shh! kindly herself so
want easy slowly Phew! he
be house carefully Wow!
between run or pen modern
pretty now if Gosh! behind

Pronoun _____ _____ _____	Adjective _____ _____ _____	Noun _____ _____ _____
Preposition _____ _____ _____	Conjunction _____ _____ _____	Verb _____ _____ _____
Adverb _____ _____ _____	Interjection _____ _____ _____	

- After finishing the worksheet, Ss will be introduced to two common idioms used in daily life conversations. The idioms will be displayed in the following slides;

Costs (someone) an arm and a leg

- to be very expensive:
The repair work cost an arm and a leg.
The new house cost me an arm and a leg.



ENGLISH

add fuel to the fire

- to make a bad situation worse:
I was late and, to add insult to injury, forgot my keys.



ENGLISH

- Ss will be asked to create sentences using the idioms.

Assessment:

Each student is going to create a **collage** of his dream country. Then, they have to include pictures of the country's culture, food, costumes, and popular attractions. Their collages will be posted on the FB group.



Session (4)

Lesson Three: Strategies for Keeping your Job

Performance objectives:

By the end of this lesson, Ss are expected to be able to:

- **Analyze & gather data** from texts and videos.
- Reflect their own experiences on a given topic or issue.
- Raise **arguments** and support them with **evidence**.
- Learn about the differences between soft and hard skills.

Warming up:

The students will be asked the following questions:

Have you ever lost a job? What happened? What did you do to lose that job?

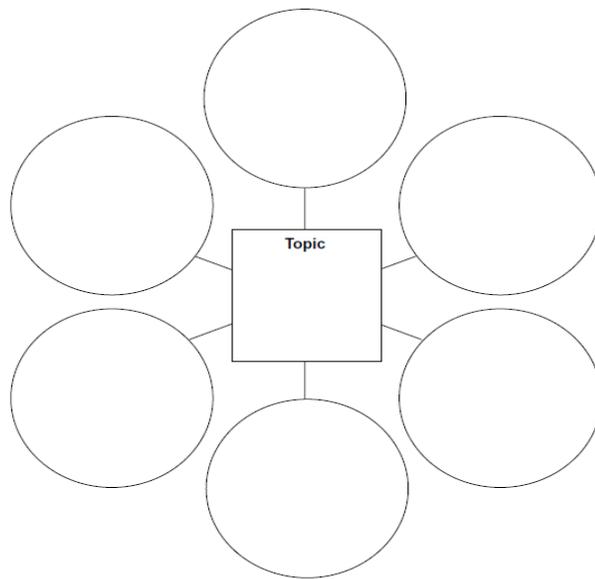
Procedures :

Activity (1): Watching a video

- The researcher will introduce the video ‘ How to Keep your Job.’ See the video on YouTube (<https://www.youtube.com/watch?v=tq-JHsLGHo0&t=1s>)



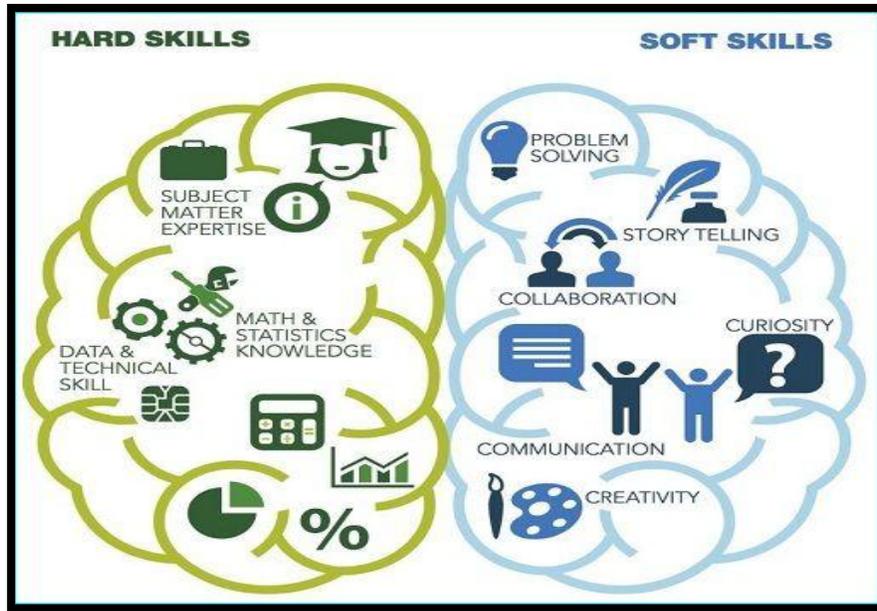
- Ss will be encouraged to take notes while watching the video.
- After watching the video, the students were asked to identify **the main idea** of the video and **gather** as much information as they could about ways to keep jobs.
- Using the following mind map, Ss were asked to **analyze** the strategies of keeping one's job as understood from the video and to generate more strategies on their own.



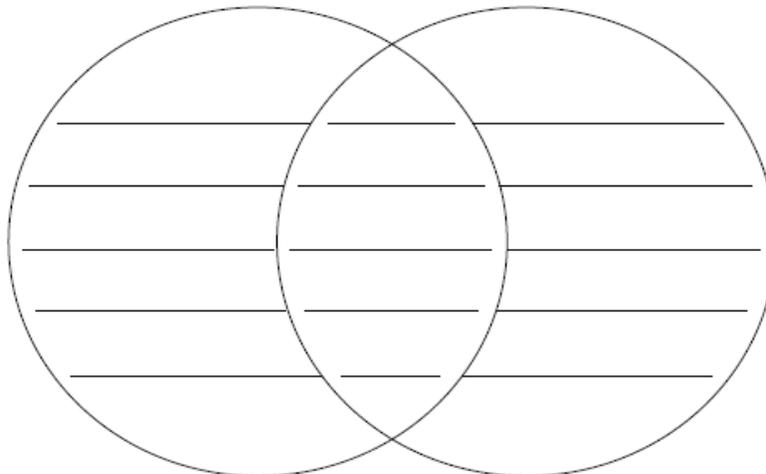
- After discussing their answers, they were asked to think of the following questions:
How can people keep their jobs?
Identify the consequences of losing a job.

Activity (2): Hard skills vs. soft skills

- To check Ss' prior knowledge, the researcher will ask his participants if they knew about the differences between soft and hard skills.
- On PowerPoint, the following illustration will be shown on the screen:



- Ss will be asked to reflect on their own experiences and talk about the skills they think they need to develop.
- Each S would suggest solutions to build his / her soft and hard skills.
- Using the **Venn diagram**, Ss were asked to compare and contrast soft and hard skills;



Activity (3) Raising arguments

- Ss will be divided into two groups. One group will represent soft skills, while the other group will represent hard skills.

- Students will be asked to answer **Question (A)** below the article. They will have to choose a heading for each paragraph, depending on their understanding.
- Their responses will be discussed with the researcher.
- **Question (B)**: students will be asked to work individually and choose the correct answer.
- They will have to discuss their answers loudly and support them with reasons.
- **Question (C)**: In groups, students will answer the questions, and each group will share their answers.

A Read the article. These headings are missing from the text. Add the correct heading to each strategy in the article.

Be positive.	Impress your superiors.	Keep up-to-date.
Express yourself well.	Make yourself noticeable.	Take classes.

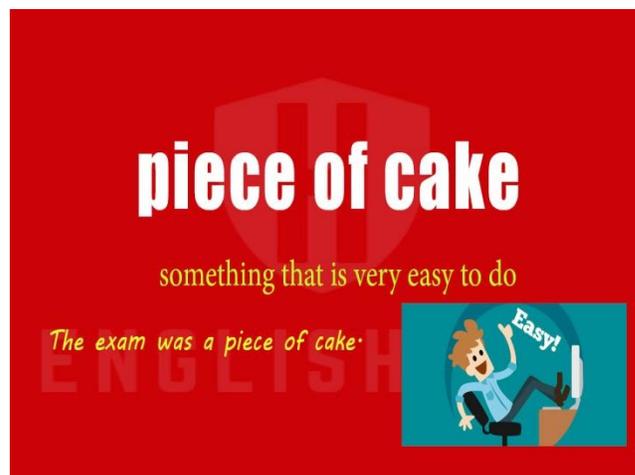
B Check (✓) the name of the employee that fits each description. Then underline the information in the article that helped you decide the answer.

1. Whose job is <i>least</i> likely to be cut?	2. Whose job is <i>most</i> likely to be cut?
<input type="checkbox"/> Anne's. She brings problems to her boss's attention.	<input type="checkbox"/> Charles's. He takes on different responsibilities.
<input type="checkbox"/> Beth's. She always finds something good to say.	<input type="checkbox"/> Bill's. He spends time training in new areas.
<input type="checkbox"/> Carol's. She keeps her opinions to herself.	<input type="checkbox"/> Alex's. He arrives on time every day.

C Group work Which strategies do you think are the most useful for keeping a job? Can you think of other strategies?

Activity (5) New idioms

- In this activity, two new idioms will be introduced to Ss as follows:



Assessment:

- Each student will film a **short video or a recording**, listing the strategies he/she thinks would help in keeping a job.
- The video or recording length is not more than 5 minutes.
- It should be in English only.
- Students have to support their viewpoints with reasons and evidence.
- The videos will be published on the Facebook group, and two of them will be selected as the best videos.

Session (5)

Lesson Four: Learning Styles

Performance objectives:

By the end of this lesson, Ss are expected to be able to:

- **Provide alternatives** to solve problems.
- Work in a team to find solutions for a given issue.
- Practice the skill of taking notes while watching videos and reading texts.
- **Provide evidence** to support a viewpoint or argument.

Warming up:

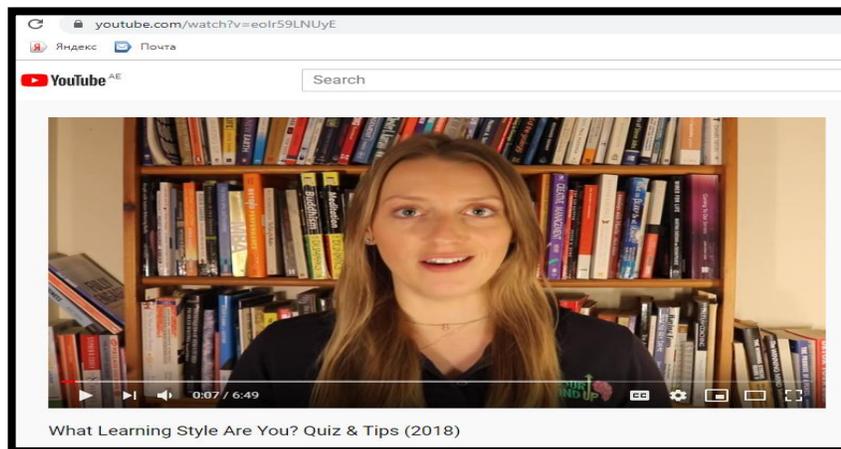
Look at the picture and guess what 'Learning styles' mean?



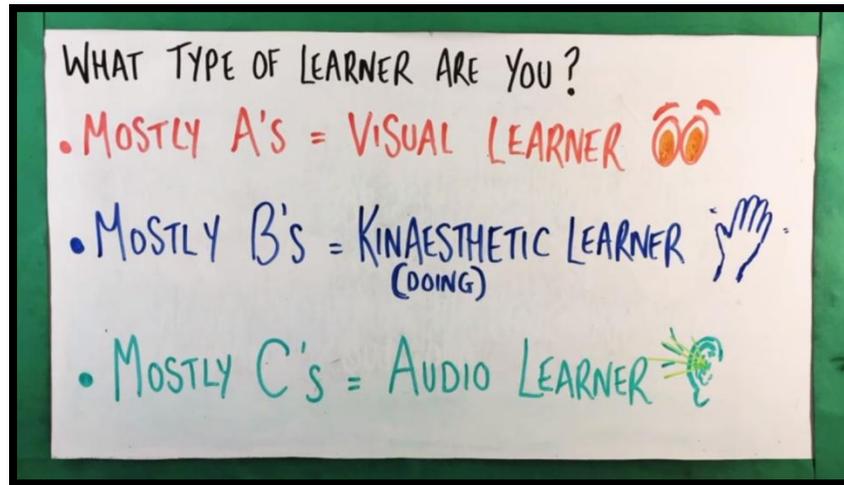
Procedures:

Activity (1) Watching a video

- Ss will be asked to watch the following video about learning styles to understand them better. See the video on YouTube (<https://www.youtube.com/watch?v=eolr59LNUyE>)



- While watching, Ss will have to answer the quiz in the video to decide which learning style they are.
- The quiz includes ten questions with only three answers for each item. Each answer indicates a specific learning style.
- At the end of the quiz, Ss will decide which learning style they are by checking their answers.



Activity (2) Suggestion solutions

- On PowerPoint, Ss will be asked to think of the following problem and work together to suggest alternatives and solutions:



- Hamza is an auditory person. All the time, he listens to music or plays songs. He does not like reading; instead, he prefers listening to audiobooks.

- Ss will be engaged in discussions regarding the questions and will be asked to analyze each paragraph to get more ideas.
- Ss will be asked to relate the ideas they read to their lives and write down their responses.
- Their responses will be discussed.
- **Question A:** Ss will be working in groups to answer the question.

A Read the article. Find the words in *italics* in the article. Then match each word with its meaning.

..... 1. <i>grasp</i>	a. try hard to do something
..... 2. <i>the big picture</i>	b. understand
..... 3. <i>gather</i>	c. something that takes attention away
..... 4. <i>struggle</i>	d. show one thing is connected to another
..... 5. <i>distraction</i>	e. a general view of a situation
..... 6. <i>associate</i>	f. pick up or collect

- Question B:

B These sentences are false. Correct each one to make it true.

1. If you can't understand something, you aren't concentrating hard enough.
2. Linguistic learners will not comprehend written information.
3. A visual learner will probably learn best by listening and speaking.
4. A musical learner needs peace and quiet to focus on something.
5. Intrapersonal learners generally work well with other people.

Assessment:

Your friend believes that Facebook has more disadvantages than its benefits. He thinks the government should prevent it to protect people's privacy and to avoid its harmful influence over people. You disagree with him as you believe that the idea of preventing anything does not work anymore in the modern world. Instead, the government should raise people's awareness of the harmful effects of social media. Summarize your argument in three paragraphs and provide persuasive evidence to your claims.

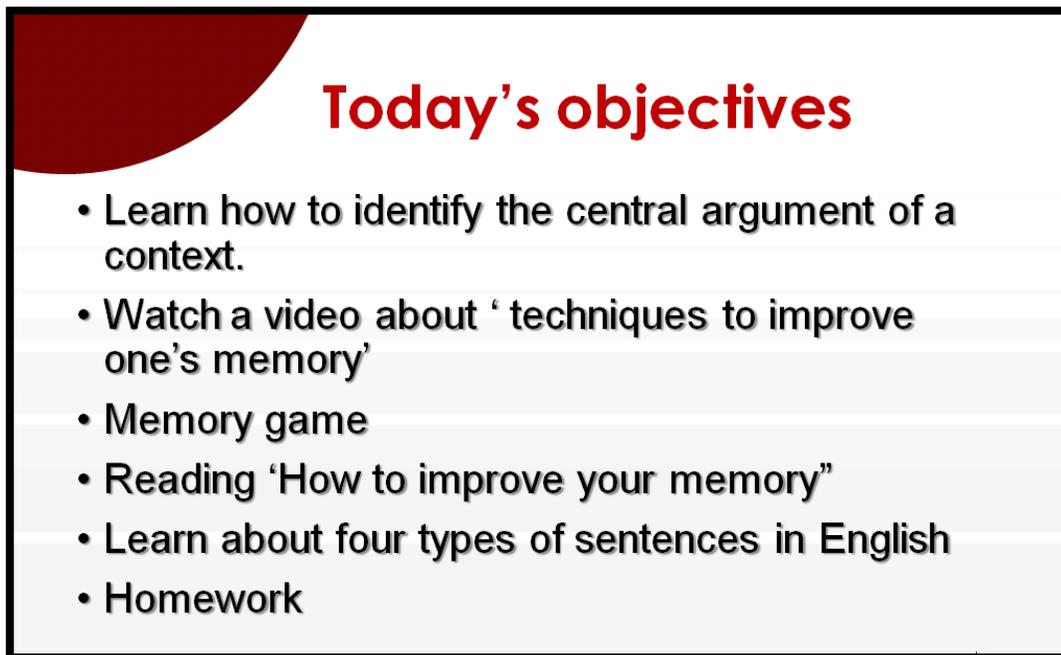
Session (6):

Lesson Five: Improve your Memory

Performance objectives:

By the end of this lesson, Ss are expected to be able to:

- Identify the **central argument** of a context.
- Thinking in groups to solve a problem
- Engage in arguments and use reasoning skills to support their opinions.
- Differentiate between the four types of sentences in English.



Today's objectives

- Learn how to identify the central argument of a context.
- Watch a video about ' techniques to improve one's memory'
- Memory game
- Reading 'How to improve your memory"
- Learn about four types of sentences in English
- Homework

Teaching Aids:

ZOOM app – YouTube videos – PowerPoint presentation – images- cell phones- laptops.

Warming up:

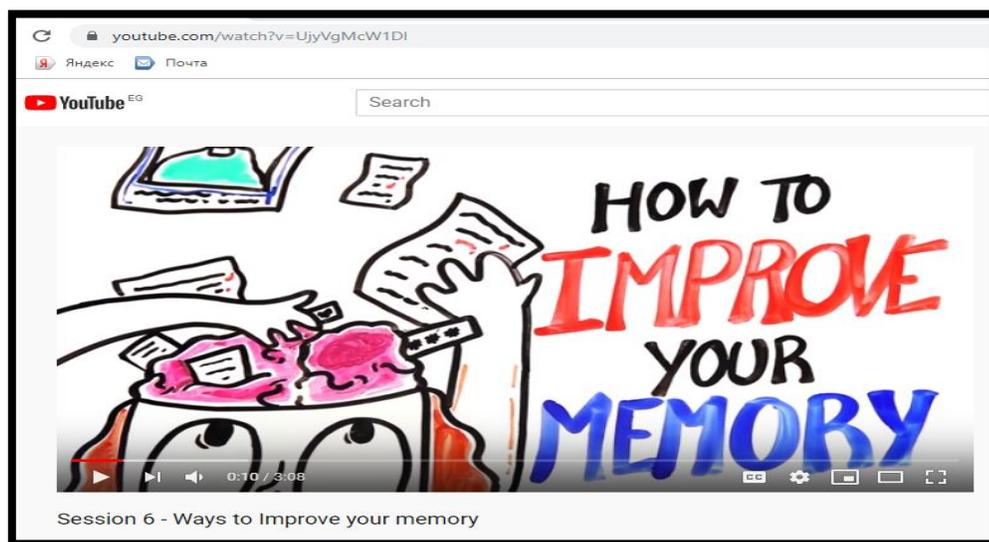
Do you remember an embarrassing situation when you tried to remember something, but you could not?



Procedures:

Activity (1) Watching a video

- Ss are going to watch a short video about ways to improve one's memory and take notes. See (<https://www.youtube.com/watch?v=UjyVgMcW1DI>)



- The researcher is going to ask Ss to list the strategies they could understand from the video. Then, he will engage them in a discussion.
- Ss will be asked to choose the ways they prefer to apply to improve their memory and will have to convince the rest of the group using their argumentative skills.

Activity (2) Reading

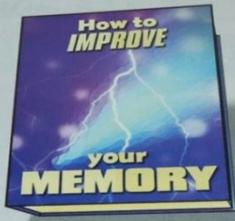
Improve Your Memory, Improve Your Life

Have you ever been embarrassed because you forgot something important? What kinds of things do you have the most trouble remembering?

- Mark began to introduce the guest speaker to the audience, but then paused in horror. He had forgotten her name.
- Barbara hid her jewelry when she went on vacation. When she came back, she couldn't remember where she'd put it.

1 Perhaps you've had experiences like these. Most people have. And, what's worse, most people have resigned themselves to a life of forgetting. They're unaware of a simple but important fact: Memory can be developed. If you'll just accept that fact, this book will show you how.

2 First, relax. If you're overanxious about remembering something, you'll forget it. Relaxing will enhance your awareness and ability to concentrate. Take



brain rewired." Jokes like this are negative and will have a negative effect on you and your memory.

4 To improve your memory, you'll need to take an active role. Like your body, your memory can be strengthened through exercise. Look for opportunities to exercise your memory. For example, if you're learning a language, try to actively remember irregular verbs.

5 You may also want to make associations, or links, between what you're trying to remember and things you already know. For example, if you need to catch a plane at 2:00 P.M., you can imagine a plane in your mind and notice that it has two wings. Two wings = 2:00. You are now ten times more likely to remember the take-off time.

deep breaths and tell yourself that you have all the time in the world to remember.

3 Second, avoid being negative. If you keep telling yourself that your memory is bad, your mind will come to believe it and you won't remember things. When you forget something, don't say, "Gee, I need to have my

- Ss will be asked to read and answer the question in the green box.
- In groups, Ss are going to discuss their answers and share their solutions to improve their memories.
- In pairs, Ss will be asked to scan the article and identify the central argument of it. They will also write down the main idea of each paragraph.
- The researcher is going to give them some questions to check their understanding.

- Then, Ss are going to order the techniques of improving one's memory in a list and mention how this could be reflected in their lives.
- Further exercises will be given after discussing the text.

A Read the article. Then write the number of each paragraph next to its main idea.

..... Your mind believes what you tell it, so be positive about your memory.
 If you train your memory actively, you'll be more likely to remember things.
 Although we all forget things, there are ways to improve our memory.
 Learning to mentally connect pieces of information can help you remember.
 We forget things more easily when we're worried about remembering them.

B Complete the chart.

General ways to improve memory	Specific examples of ways to improve memory
1. <i>Relax</i>	<i>Take deep breaths; tell yourself you have time.</i>
2.
3.
4.

C Group work Which of the suggestions do you find the most useful? Why?

Activity (3) Memory Game



- On PowerPoint, Ss will be asked to look at the following picture for 5 seconds:



- After five seconds, the picture will disappear, and the following questions will show up on the screen:

- How many people are in the picture?
- What are they doing?
- What was on the table?
- How many blond hair are in the picture?
- Where are they ?

- After receiving Ss responses, the picture will appear again so Ss can check if they got the right answers or not,

Assessment:

Ss will be asked to read an article from New York Times entitled: ‘**Study: Kids can learn as much from ‘Sesame Street’ as from preschool.**’

(https://www.washingtonpost.com/business/economy/sesame-street-and-its-surprisingly-powerful-effects-on-how-children-learn/2015/06/07/59c73fe4-095c-11e5-9e39-0db921c47b93_story.html)

The screenshot shows a web browser displaying a Washington Post article. The article title is "Study: Kids can learn as much from 'Sesame Street' as from preschool". Below the title is a video player with a play button and the text "This is how Cookie Monster makes your kid smarter." The video shows Cookie Monster and a child. Below the video is a caption: "The Biscotti Kid skits in 'Sesame Street' is about more than the Cookie Monster being, well, the Cookie Monster. (Lee Powell/The Washington Post)". The author is listed as "By Jim Tankersley" and the date is "June 7, 2015". At the bottom of the article, there is a snippet: "NEW YORK — Most Americans born since the mid-1960s have a favorite 'Sesame Street' skit, Jennifer". To the right of the article is an advertisement for HP ink and toner, offering "20% off original HP ink and toner" with a "Shop now" button and the Amazon logo. The browser's address bar shows the URL: "https://www.washingtonpost.com/business/economy/sesame-street-and-its-surprisingly-powerful-effects-on-how-children-learn/2015/06/07/59c73fe4-095c-11e5-9e39-0db921c47b93_story.html". The browser's taskbar at the bottom shows various application icons.

Ss will be asked to identify the main argument of the article and clarify if they agree or disagree with the study and why.

Session (7)

Lesson Six: Global Village

Performance Objectives:

By the end of this lesson, Ss are expected to be able to:

- Compare and contrast different viewpoints.
- Practice different CT components.
- Practice text analysis skills.
- Raise arguments and use reasoning skills to support their opinions.

Teaching Aids:

ZOOM app – videos – PowerPoint presentation – images

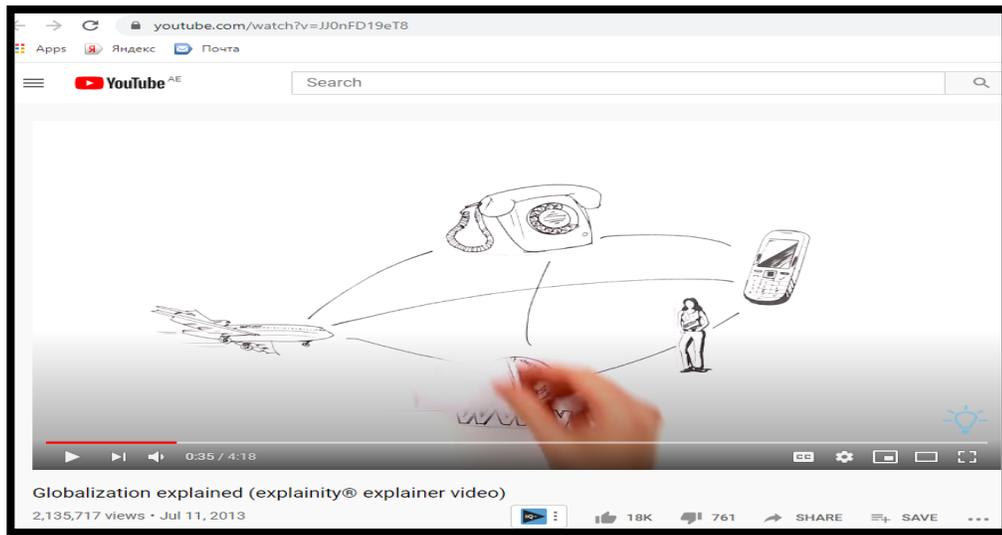
Warming up:

What is meant by ‘ Global Village’?

Procedures:

Activity (1)

- Ss are going to watch a video about globalization and are asked to take notes. (<https://www.youtube.com/watch?v=JJ0nFD19eT8>)



- The video will be discussed, and Ss will give their reflection on the video.
- Ss will be divided into two groups: the first group will support the idea, while the other one will reject it.
- Each group will have to try to convince the other group with their viewpoint.

Activity (2):

- Learners will be asked to scan the following article, analyze it, and get the main conclusion of it.

THE GLOBAL VILLAGE

Scan the article. What does the term global village mean?

More and more often, the term *global village* is used to describe the world and its people. In most villages, everyone knows everyone else and the people face the same kinds of problems. So how can the world be a village when it is home to more than six billion people? Political and technological changes in the past century have made the global village possible.

POLITICAL CHANGES The years following World War II seemed to promise peace. In fact, in 1945, the United Nations was founded to help countries resolve disputes peacefully. However, this promise was soon broken by the Cold War – distrust and tension between the United States and the Soviet Union. These two superpowers engaged in an arms race, spending huge amounts of money on weapons. The other nations of the world were divided into two “sides,” and the world was frozen in a state of hostility.

The Cold War finally ended and the political climate changed between 1989 and 1991, when the governments of the Soviet Union and several Eastern European countries collapsed. The end of Cold War tension made the global village more politically possible by opening new channels of communication between nations.



TECHNOLOGICAL CHANGES Technologically, the greatest contributor to the global village is the microchip – an electronic circuit on a tiny chip. The evolution of the microchip has made modern satellites and supercomputers possible. These forms of high-tech communications allow news and ideas to travel quickly across the globe, making people more aware of their neighbors around the world in dramatic new ways. Through the Internet, we can get information from computers and carry on electronic conversations with people everywhere. Through television programs transmitted by satellite, we are exposed to many cultures.

The development of the global village will almost certainly continue into the future. Not only is this probable, but the challenges that the world faces – for example, conflicts among peoples, pollution, and population growth – will make it necessary.

- The researcher will give them further questions to check their understanding.
- An open discussion about the topic will start and each learner will have to participate.

Home Assignment:

Learners will be asked to research the following question to discuss the next session:

- How can political and technological changes affect the world? Give your predictions to the future of Earth. How life will be, and what changes do you expect?
- Next session, each student will do a presentation of five minutes talking about his/ her project.
- The last session is dedicated to reviewing the whole course, applying the course evaluation survey, and conducting the CT posttest.

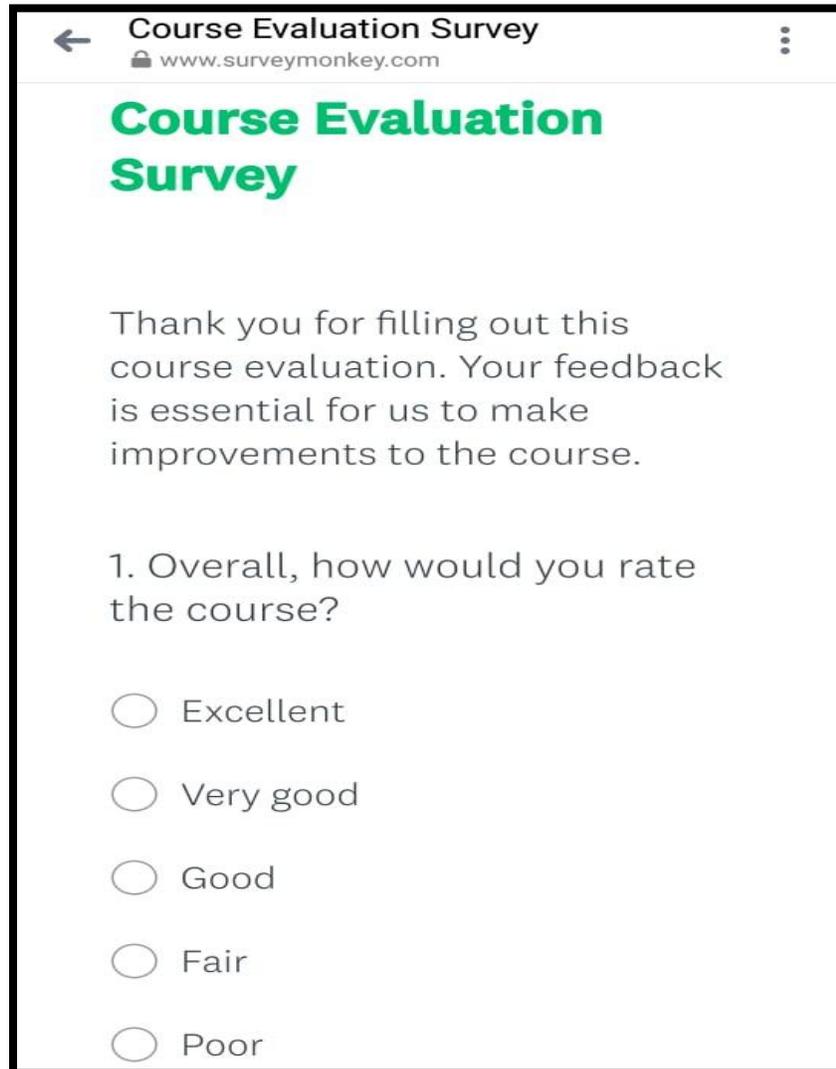
Appendix (F)

Course Evaluation Survey

Appendix (F): Course Evaluation Survey

To measure the overall satisfaction of the participants, the researcher distributed a survey at the end of the program. The purpose of the survey was to know about their satisfaction and reflection on the conducted program. The ‘Evaluation Survey’ was designed on (www.surveymonkey.com) and included nine different questions. Participants had to answer all the questions and submit the survey online.

See the online copy at (<https://www.surveymonkey.com/r/Q5T7RNT>).



← Course Evaluation Survey
www.surveymonkey.com

Course Evaluation Survey

Thank you for filling out this course evaluation. Your feedback is essential for us to make improvements to the course.

1. Overall, how would you rate the course?

- Excellent
- Very good
- Good
- Fair
- Poor

2. How useful was learning about CT?

- Extremely useful
- Very useful
- Somewhat useful
- Not so useful
- Not at all useful

3. How likely is it that you would recommend online courses to a friend or colleague?

Not at all likely					Extremely likely					
0	1	2	3	4	5	6	7	8	9	10

4. How useful was the course material?

- Extremely useful
- Very useful
- Somewhat useful
- Not so useful
- Not at all useful

5. How clearly did your instructor explain the course material?

- Extremely clearly
- Very clearly
- Somewhat clearly
- Not so clearly
- Not at all clearly

6. How well did your instructor answer students' questions?

- Extremely well
- Very well
- Somewhat well
- Not so well
- Not at all well

7. How helpful were the homework assignments to your understanding of the material?

- Extremely helpful
- Very helpful
- Somewhat helpful
- Not so helpful
- Not at all helpful

8. What are the most important takeaways for you from the course?

9. What improvements would you make to the course?

Submit

Summary in Arabic

ملخص الدراسة باللغة العربية

عنوان البحث: تطوير مهارات التفكير الناقد للطلاب الكبار من خلال برنامج قائم علي استخدام المجتمعات الإلكترونية

اسم الباحث: أحمد جمال محمد عبد الجليل

إشراف:

د. أسماء غانم غيث، استاذ المناهج و طرق التدريس، كلية التربية جامعة عين شمس

د. مصطفى عبد الخالق ، أستاذ تكنولوجيا التعليم المتفرغ ، كلية التربية جامعة طنطا

مستخلص البحث:

تهدف الدراسة إلى تصميم برنامج يعتمد على سياق المجتمع الإلكتروني لتنمية التفكير الناقد لدى المتعلمين الكبار. بدأت الدراسة بمراجعة الأدبيات والدراسات السابقة المتعلقة بالتفكير الناقد ومكوناته والمجتمعات الإلكترونية - حيث أجريت الدراسة. صمم الباحث أدوات الدراسة بما في ذلك اختبار التفكير الناقد قبل الاستبيان ، واستبيان التفكير الناقد ، ونموذج تقييم الاستبيان. ثم ابتكر الباحث البرنامج المقترح للدراسة. شاركت مجموعة تطوعية من متعلمي اللغة الإنجليزية الكبار (ن = 20) في الدراسة. تمت الدراسة من خلال ثماني محاضرات على الإنترنت بما في ذلك اختبارات الدراسة. تم تحليل إحصائي لدرجات الطلاب في الاختبارين القبلي البعدي إحصائياً باستخدام اختبار T ، كما تم تحديد حجم التأثير. بالإضافة إلى ذلك ، تم إجراء تحليل نوعي لأداء ورضا الطلاب. كشفت كل من النتائج الكمية والنوعية أن البرنامج القائم على سياق المجتمع الإلكتروني كان فعالاً في تطوير التفكير الناقد للغة الإنجليزية كلغة أجنبية.

الكلمات المفتاحية: المجتمعات الإلكترونية ، التفكير الناقد ، الطلاب الكبار ، متعلمي اللغة الانجليزي كلغة ثانية المصريين.

ملخص الدراسة باللغة العربية

المقدمة:

في عالم سريع التغير ، أصبحت مهارات التفكير الناقد والتعلم الإلكتروني ذات أهمية عظيمة في مجال تعليم الكبار. حيث لم تعد الفصول التقليدية المكان الوحيد للتعلم. الطرق القديمة للتدريس التي تعتمد على التذكر والحفظ لم تعد فعالة في عصر السماوات المفتوحة. فيمكن للمتعلمين الآن الحصول على شهادات دون الحاجة إلى زيارة مدرسة أو الالتحاق بجامعة و الحضور بشكل نظامي. حيث يمكن للطلاب الان الاستمرار في التعلم في المنزل أو مكان عمله من خلال منصات افتراضية مثل المواقع التعليمية وتطبيقات أندرويد. و قد أثبتت العديد من المنصات الافتراضية فعاليتها في تثقيف الأشخاص ، مثل أكاديمية خان و Coursera و EdX و TedEd و Cambly. من خلال هذه المنصات ، يتمتع المتعلمون بحرية الاختيار من بين آلاف الموضوعات للدراسة و البحث.

على الجانب نفسه ، يعتبر التفكير الناقد عنصراً أساسياً آخر في تعليم الكبار. كما يربط العديد من العلماء التفكير الناقد بتعليم الكبار. يعتقد Moore (2010) أن تعلم الكبار عملية فريدة تتطلب عمليات داعمة لإنجاحها. يمكن أن يكون التفكير الناقد إحدى العمليات التي تتعايش مع تعلم الكبار لتعزيز عملية التعلم بأكملها. وبالتالي ، ينبغي تنفيذ التفكير الناقد في دورات تعليم اللغة الإنجليزية كلغة أجنبية للكبار كعنصر أساسي لتقديم تجربة تعليمية ناجحة.

تعد فجوة التفكير الناقد واحدة من أهم التحديات في التعليم اليوم. وفقاً ل Seale (2020) ، فإن التفكير الناقد هو عبارة عن مجموعة من المهارات بما في ذلك التفكير والتحليل وإظهار الإحساس الصحي بالشك المطلوب للبحث عن أدلة. وهو يعتقد أيضاً أن هناك رغبة متزايدة في القرن الحادي والعشرين لملاء فجوة التفكير الناقد من خلال سياقات غير عادية مثل المجتمعات الإلكترونية. لذلك ، يجب إعطاء الأولوية للتفكير الناقد من قبل القادة وتنفيذها في التعلم عبر الإنترنت ، لا سيما أثناء الكوارث الطبيعية والأوبئة. حيث سيساعد ذلك متعلمي اللغة الإنجليزية كلغة أجنبية على التطور مهنيًا واجتماعيًا وثقافيًا.

كما عرف Wagner (2008) التفكير الناقد كواحدة من سبع مهارات مطلوبة للنجاح في مكان العمل. في هذا الصدد ، أصبح التفكير الناقد مهارة أساسية للبالغين للوصول إلى أهداف حياتهم والنمو المهني. على نفس المنوال ، كما أكد (William D. Hendricson, et al., 2006) أن المتعلمين بحاجة

إلى اكتساب مهارات التفكير الناقد العليا مثل ؛ التعرف على الأنماط ، والقدرة على التفكير في المستقبل ، وتوقع النتائج والمشاكل. أيضًا ، حيث يُنصح بتعلم كيفية استرداد المعلومات بسرعة ، والحفاظ على الاتزان العقلي حتى لا تعيق العواطف عملية صنع القرار. علاوة على ذلك ، أن تكون لديك الثقة في اتخاذ القرارات حتى عندما تكون الظروف غير واضحة ، وتكون النتائج غير مؤكدة. فمن خلال تعلم هذه المهارات ، سيتمكن المتعلمون الكبار من التحول من كونهم مبتدئين إلى خبراء.

علاوة على ذلك ، يساعد التفكير الناقد المتعلمين الكبار على مواجهة التحديات الحديثة ودعم أسرهم وتغيير حياتهم المهنية والتطور المهني. حيث لا يتاح لمعظم المتعلمين البالغين العاملين الوقت الكافي للتسجيل في الدورات التعليمية العادية. لذلك ، يلجأون إلى استخدام موارد يسهل الوصول إليها مثل الإنترنت. ومع ذلك ، فإنهم يفتقرون إلى تطوير مهارات التفكير الناقد.

يتلخص هدف الدراسة الحالية في قياس تأثير استخدام برنامج قائم على سياق مجتمع إلكتروني ، في تطوير التفكير الناقد للمتعلمين الكبار. وسيركز البرنامج علي بعض مكونات التفكير الناقد مثل تحليل البيانات و المناظرة و التساؤل و صنع القرار لملئ هذا الفراغ و تأثير البرنامج عموما في تطوير اللغة الانجليزية لدي المتعلمين الكبار.

مشكلة الدراسة:

بسبب قلة البرامج التي تركز على التفكير الناقد في مصر ، يفتقر معظم المتعلمين إلى قدرات التفكير النقدي الأساسية اللازمة لدراساتهم وعملهم وحياتهم. وبالتالي ، سينعكس هذا الافتقار في قدرات التفكير على متعلمي اللغة الإنجليزية كلغة أجنبية. كما أن معظم البرامج لا تستخدم المجتمعات الإلكترونية لأنها لا تزال تعتمد على الفصول التقليدية والكتب الورقية ، لذلك يفتقر معظم المتعلمين إلى مهارات التعامل مع المجتمعات الإلكترونية في التعلم. تدعم العديد من الدراسات هذه الفكرة :

يؤكد هذا الطرح ElSayed (2017) حيث أكدت علي أهمية استخدام الفيس بوك والتقنيات الحديثة لاتاحة فرصًا أفضل للتعلم. كما أكدت علي أهمية تحفيز التفكير الناقد لدى الطلاب لأن تدريس التفكير يعتبر أكثر أهمية من اللغة نفسها.

كما أكد Moustafa (2009) في دراسته أن التفكير الناقد لا يحظى بالاهتمام الكافي في الممارسة الفعلية في مصر. نتيجة لذلك ، لم يعد المعلمون على استعداد لممارسة اتجاهات جديدة في تدريس وتعليم

التفكير الناقد لطلابهم حيث لم يتم تدريبهم على هذا النوع من التفكير. علاوة على ذلك ، يركز معظم الطلاب على استرجاع وحفظ المعلومات بدلاً من المعالجة والتفكير بشكل ناقد.

في الوقت نفسه ، لا يزال تنفيذ المجتمعات الإلكترونية والمنصات الافتراضية في التعليم المصري نادرًا. لا تزال غالبية المدارس والجامعات تعتمد على الفصول الدراسية التقليدية كوسيلة للتعليم والتعلم. حاولت بعض المنظمات تطبيق المجتمعات الإلكترونية في التعليم ؛ ومع ذلك ، كان هذا التطبيق يقتصر على أغراض محددة وعلى نطاق محدود.

نظرًا للأسباب السابقة ، وجد الباحث رغبة في تصميم برنامج يعتمد على سياق المجتمعات الإلكترونية ، بهدف تطوير قدرات التفكير الناقد لدى متعلمي اللغة الإنجليزية كلغة أجنبية. و للتأكد من صحة المشكلة ، أجرى الباحث بعض المناقشات عبر الإنترنت مع مجموعة من المتعلمين الكبار وسألهم عما يعرفونه عن التفكير الناقد والمجتمعات الإلكترونية. و وجد أن معظم الطلاب لديهم معلومات ضعيفة عن التفكير الناقد. و قال أغلبهم أنهم لم يتلقوا هذا النوع من التفكير ولم يتعلموا من خلال سياق المجتمعات الإلكترونية من قبل. وذكروا أنهم يرغبون في التعلم من خلال التكنولوجيا وألقوا باللوم على النظام التعليمي حيث أنه يعتمد على الطرق التقليدية في التعلم والتقييم.

الدراسة الاستطلاعية:

أجرى الباحث دراسة استطلاعية باستخدام اختبار التفكير النقدي على مجموعة من الطلاب عددهم 20 طالبًا لتقييم قدرات التفكير الناقد لديهم ولقياس ما يعرفوه عنها. وقد ركزت أسئلة الدراسة على مجموعة من مكونات التفكير الناقد مثل مهارات تحليل البيانات، و تحديد العناصر الأساسية لاي مشكلة او موضوع و القدرة علي انتاج أدلة و بدائل لوجهات النظر و القدرة علي حل المشكلات. بناءً على نتائج الدراسة الاستطلاعية ، فقد تأكد للباحث ان الطلاب البالغين يفتقرون تقريبًا إلى الحد الأدنى من قدرات التفكير الناقد. في نهاية الاختبار التجريبي ، أجرى الباحث مناقشة مع نفس المجموعة لتحديد الأسباب الكامنة وراء هذا الضعف في قدرات التفكير الناقد. و اتفقت معظم الإجابات أن قلة أنشطة التفكير الناقد في النظام التعليمي هي السبب الرئيسي. أشار طلاب آخرون إلى أنهم لم يتعرفوا أبدًا على هذه الأنواع من الأسئلة من قبل ، و لم يجربوا التعلم عن طريق المجتمعات الإلكترونية.

تحديد المشكلة :

يعاني معظم متعلمي اللغة الانجليزية الكبار من ضعف في قدرات التعلم الناقد على الرغم من أنه ضروري لحياتهم وعملهم. قد يرجع هذا النقص في الممارسة إلى طرق التدريس والتعلم التقليدية في المدارس والجامعات. حيث يميل المتعلمون للإجابة على الأسئلة المباشرة التي لا تتطلب قدرات تفكير ناقدة. عندما يتعرض المتعلمون لأسئلة او أنشطة تفكير ناقد ، يجدون صعوبة في الإجابة عنها. وبالتالي ، تحاول الدراسة الحالية حل هذه المشكلة من خلال تطبيق برنامج قائم على سياق المجتمعات الإلكترونية لتطوير قدرات التفكير الناقد لمتعلمي اللغة الإنجليزية كلغة ثانية الكبار. كما يقدم الباحث المجتمعات الإلكترونية كوسيلة التعلم والتعليم الرئيسية للدراسة الحالية.

اسئلة الدراسة:

تحاول الدراسة الإجابة على السؤال الرئيسي التالي:

- ما هو تأثير البرنامج المقترح القائم علي المجتمعات الالكترونية في تنمية التفكير الناقد لدى متعلمي اللغة الإنجليزية الكبار كلغة أجنبية؟

كما تحاول الدراسة أيضاً الإجابة عن الأسئلة الفرعية التالية:

- ما هو المستوى الحالي لقدرات التفكير الناقد لدى متعلمي اللغة الإنجليزية الكبار كلغة أجنبية؟
- ما هي مكونات البرنامج التي تؤدي إلى تطوير قدرات التفكير الناقد لدى متعلمي اللغة الإنجليزية الكبار كلغة أجنبية؟
- ما هي الاستراتيجيات المقترحة والأنشطة عبر الإنترنت التي تؤدي إلى تطوير التفكير الناقد لدى متعلمي اللغة الإنجليزية كلغة أجنبية؟
- ما هو تأثير استخدام برنامج قائم على مجتمع إلكتروني لتطوير التفكير الناقد لدى متعلمي اللغة الإنجليزية كلغة أجنبية؟

فرض الدراسة:

“توجد فروق ذات دلالة إحصائية بين متوسطات درجات الاختبار القبلي والاختبار البعدي في قدرات التفكير النقدي لصالح درجات الاختبار البعدي”.

منهج الدراسة:

استخدمت الدراسة تصميم المجموعة الواحدة (شبه التجريبي) و تم تطبيق اختبارين قبلي و بعدي علي هذه المجموعة لقياس مدي تطور قدرات التفكير الناقد و تم تحليل النتائج بشكل احصائي لمعرفة مدي فعالية البرنامج المقترح. و شارك بالدراسة 20 طالبا كبيرا بشكل تطوعي من محافظات مختلفة بمصر. و تمت الدراسة بشكل كامل في سياق المجتمعات الالكترونية علي الانترنت.

ادوات الدراسة:

1. اختبار قبلي بعدي لقياس مدي تطور مكونات التفكير الناقد المستهدفة.
2. مقياس لتقييم مهارات التفكير الناقد.

حدود الدراسة:

1. مجموعة من متعلمي اللغة الانجليزية الكبارو عددهم 20 متطوع.
2. تتراوح أعمارهم من 20 إلي 30 عاما.
3. ستة قدرات من مكونات التفكير الناقد: تحديد العناصرلاي مشكلة، تحليل البيانات، جمع البيانات، تحديد موضوع الجدل المحوري للنص، تقديم الأدلة، اعتبار وجهات النظر البديلة.
4. تمت الدراسة في كل مراحلها في سياق مجتمعات الكترونية بالكامل عن طريق شبكة الانترنت باستخدام برنامج مثل ZOOM و برنامج اخري لتسهيل التواصل بين الباحث و الطلاب.

أهمية الدراسة:

من المتوقع ان تكون هذه الدراسة ذات اهمية بالنسبة لـ:

- **متعلمين اللغة الانجليزية الكبار:** تحاول الدراسة أن تساعد المتعلمين الكبار في تطوير مهارات التفكير الناقد و إيجاد بدائل للفصول التقليدية من خلال استخدام المجتمعات الإلكترونية. حيث يساعد التعلم باستخدام المجتمعات الالكترونية في إيجاد حلول للمتعلمين الكبار الراغبين في التعلم عن بعد بطرق متطورة ، رغم صعوبات يواجهونها مثل المسؤوليات العائلية و العملية أو مكان الإقامة.

- **معلمي اللغة الانجليزية كلغة أجنبية:** يستطيع معلموا اللغة الانجليزية الاسترشاد بشكل عام من فكرة الرسالة و استخدام المجتمعات الالكترونية في تدريس التعلم الناقد و الاستفادة من الانشطة المتنوعة التي تم تطبيقها في البرنامج المقترح لتطوير جودة تعليمهم و استخدام بدائل للفصول التقليدية.
- **الباحثون و مصمموا مناهج اللغة الإنجليزية:** يأمل الباحث أن تساعد نتائج الدراسة الحالية باحثي اللغة الانجليزية كلغة أجنبية في البحث عن موضوعات مرتبطة بفكرة الدراسة. كما سيساعد تطبيق المجتمعات الالكترونية في التعليم مصممي المناهج في تطوير مناهج تتناسب مع المجتمعات الإلكترونية و التقدم التقني.
- **المستثمرين و رجال الأعمال:** يأمل الباحث ان يتم الاهتمام بفكرة الدراسة و تمويلها و ادارتها عن طريق متخصصين في تصميم و تطوير المناهج الي جانب مختصين برمجة ، حيث من الممكن ان تقدم نموذجا فريدا في مصر و الشرق الاوسط بتقديم منصة علمية متكاملة ، يتلقى فيها الطالب العلم من بيته او من اي مكان ، و يتواصل المعلم مع طلابه و زملاءه عن بعد ، و يستطيع الطالب الوصول الي المراجع و المصادر العلمية بشكل سهل و سريع علي مدار الساعة دون الحاجة للانتقال من مكانه كما يستطيع ان يجتاز الاختبارات المطلوبة و الحصول علي الدرجات العلمية المختلفة دون الحاجة للتفرغ.

توصيات الدراسة:

- بناءً على نتائج هذه الدراسة ، توصي الدراسة بالآتي:
- إضافة أنشطة التعلم الناقد في مناهج متعلمي اللغة الإنجليزية الكبار في الجامعات و المعاهد والمراكز المتخصصة.
 - تدريب المتعلمين الكبار علي استراتيجيات التفكير و تحليل البيانات و التساؤل لتطوير تفكيرهم الناقد و مساعدتهم علي انتاج الحلول بدلاً من مجرد استهلاك المعرفة.
 - يمكن أن تكون المجتمعات الإلكترونية بديلاً فعالاً عن الفصول الدراسية التقليدية للمتعلمين الكبار ، وخاصة أولئك الذين ليس لديهم وقت أو القدرة على حضور الدورات القائمة على الفصل. و لتحقيق هذا الهدف ، يجب ضخ المزيد من الدعم المالي لإنشاء مجتمعات إلكترونية متكاملة.

- أهمية إعتداد التعلم عن طريق المجتمعات الإلكترونية خاصة في أوقات الازمات و الحروب و الأوبئة كأزمة جائحة كورونا الذي يعيشها العالم في العام 2020.
- يحتاج معلمو اللغة الإنجليزية إلى التدريب المناسب قبل تطبيق المجتمعات الإلكترونية في العملية التعليمية والتعرف على الأدوات التقنية المطلوبة.
- يجب تدريب المعلمين على التفكير واستخدام قدرات التفكير الناقد ليكونوا مؤهلين لتدريس التفكير لطلاب المستقبل.
- يجب إدخال مواضيع تتعلق بالمشكلات العالمية مثل القضايا الاجتماعية والاقتصادية والسياسية والبيئية على برامج اللغة الإنجليزية لتشجيع المتعلمين الكبار على التفكير وتقديم حلول حقيقية لما يحدث حولهم.
- يمكن للجامعات والمدارس والمؤسسات التعليمية تطوير مجتمعاتها الإلكترونية وإنشاء كمية هائلة من الأدوات التعليمية لإثراء العملية التعليمية.
- يجب أن يشارك متعلمو اللغة الإنجليزية الكبار في اختيار الموضوعات التي تناسب احتياجاتهم و إهتماماتهم.
- يساعد تعلم قدرات التفكير الناقد المتعلمين البالغين على اكتساب اللغة الإنجليزية بطريقة أسهل.

مقترحات من الممكن خضوعها لمزيد من البحث المستقبلي:

- بناءً على نتائج هذه الدراسة ، يمكن ان تخضع المشاكل البحثية الآتية للبحث:
- تكرار الدراسة مع متعلمي اللغة الإنجليزية الصغار في مختلف مستويات الصفوف المدرسية.
- التحقيق في تأثير استخدام مكونات التفكير الناقد الأخرى في برنامج قائم على سياق المجتمع الإلكتروني.
- إجراء برامج تدريب إستراتيجي باستخدام المجتمعات الإلكترونية لتحسين مهارات الطلاب اللغوية الأخرى مثل التحدث والاستماع والقراءة.
- دراسة تأثير استخدام المجتمعات الإلكترونية في تحسين مهارات التدريس للطلاب المعلمين بكليات التربية دارسي اللغة الإنجليزية كلغة أجنبية.
- التحقيق في تأثير استخدام المجتمعات الإلكترونية كأداة تقييم بديلة بدلاً من طرق التقييم التقليدية.

- إجراء المزيد من الدراسات لاستقصاء فعالية بعض أدوات المجتمعات الإلكترونية في تطوير اكتساب اللغة لمتعلمي اللغة الإنجليزية كلغة أجنبية. علي سبيل المثال ، التحقق من تأثير وسائل التواصل الاجتماعي أو برامج مؤتمرات الفيديو في تعلم اللغة الانجليزية لغير الناطقين بها.

