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**The Role of Multiple intelligences and Art Education in
the Performance of IELTS Candidates on the Reading
Comprehension Section of the IELTS Exam and their
Motivations**

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Abstract

The arts improve our lives, enhance our sense of aesthetics, and can be a precious instrument for language educators and for language learners in the English as a Foreign Language (EFL) context. This study evaluated the role of Multiple intelligences and Art-education in International English Language Testing System (IELTS) candidates' performance in the reading section of IELTS exam and their motivations. The researcher designed the visual Artistic Reading tasks for IELTS reading skills according to Armstrong's (2009) definitions of visual artistic tasks for reading skills, including a) visual artistic tasks for vocabulary learning and b) visual artistic tasks for IELTS reading comprehension skills. 54 IELTS candidates who attended an IELTS reading classroom in an English institute participated in this study. The experimental group (N=27) implemented an art-education program for learning IELTS reading skills, and the traditional method of instruction was used for the control group (N=27). First, an IELTS reading pretest was administered for both groups. Then, the MIDAS scale by Shearer (1996) in 119 items was administered to all participants. At the end of the course, all participants took an IELTS reading post-test and a motivation questionnaire. The results indicated that the art integration program resulted in candidates' outperformance in the traditional group in the IELTS reading exam, compared with the control group. Also, the motivation of IELTS candidates who attended an art education program was significantly increased, and they had very positive attitudes about integrating art in the IELTS reading classrooms. The results revealed that all the IELTS candidates' Multiple intelligences positively impacted their performance in the IELTS Reading exam, and the Musical, Kinesthetic Visual-spatial contributed the most to the IELTS reading exam performance and visual/spatial in third place, and after that, linguistic intelligence had a significant role in enhancing IELTS candidates' reading scores. Logical/mathematical intelligence has a moderate, interpersonal and naturalistic, and intrapersonal intelligence had a less significant impact on the IELTS candidates' performance in the reading section. Furthermore, the results indicated that musical intelligence and kinesthetic intelligence made a significant unique contribution to the prediction performance of candidates in the IELTS reading exam. After that, visual-spatial and linguistic intelligence played a significant role, respectively.

Keywords: Art, Art-Education, Multiple Intelligence, Reading Comprehension, IELTS Reading Comprehension Exam

Resumen

Las artes mejoran nuestras vidas, realzan nuestro sentido de la estética y pueden ser un instrumento valioso para los educadores de idiomas y para los estudiantes de idiomas en el contexto del inglés como lengua extranjera. Este estudio evaluó el papel de las inteligencias múltiples y la educación artística en el desempeño de los candidatos del sistema internacional de pruebas de idioma inglés. (IELTS) en la sección de lectura del examen IELTS y sus motivaciones. El investigador diseñó las tareas de lectura artística visual para las habilidades de lectura del IELTS de acuerdo con las definiciones de Armstrong (2009) de tareas artísticas visuales para las habilidades de lectura, incluidas a) tareas artísticas visuales para el aprendizaje de vocabulario y b) tareas artísticas visuales para las habilidades de comprensión lectora del IELTS. En este estudio participaron 54 candidatos de IELTS que asistieron a un aula de lectura de IELTS en un instituto de inglés. El grupo experimental (N=27) implementó un programa de educación artística para aprender habilidades de lectura IELTS, y el método tradicional de instrucción se utilizó para el grupo de control (N=27). Primero, se administró una prueba previa de lectura IELTS a ambos grupos. Luego, se aplicó a todos los participantes la escala MIDAS de Shearer (1996) en 119 ítems. Al final del curso, todos los participantes realizaron una prueba posterior de lectura del IELTS y un cuestionario de motivación. Los resultados indicaron que el programa de integración artística resultó en un desempeño superior de los candidatos en el grupo tradicional en el examen de lectura IELTS, en comparación con el grupo de control. Además, la motivación de los candidatos al IELTS que asistieron a un programa de educación artística aumentó significativamente y tuvieron actitudes muy positivas sobre la integración del arte en las aulas de lectura del IELTS. Los resultados revelaron que las inteligencias múltiples de todos los candidatos al IELTS impactaron positivamente su desempeño en el examen de lectura IELTS, y Musical, Kinestésico Visual-espacial contribuyó más al desempeño en el examen de lectura IELTS y visual/espacial en tercer lugar, y después de eso, La inteligencia lingüística tuvo un papel importante en la mejora de las puntuaciones de lectura de los candidatos al IELTS. La inteligencia lógica/matemática tiene un impacto moderado, la interpersonal y naturalista, y la inteligencia intrapersonal tuvo un impacto menos significativo en el desempeño de los candidatos del IELTS en la sección de lectura. Además, los resultados indicaron que la inteligencia musical y la inteligencia cinestésica hicieron una contribución única y significativa al desempeño de predicción de los candidatos en el examen de lectura IELTS. Después de eso, la inteligencia visual-espacial y la lingüística desempeñaron un papel importante, respectivamente.

Resumen

Les arts milloren les nostres vides, milloren el nostre sentit de l'estètica i poden ser un instrument preciós per als educadors d'idiomes i per als aprenents d'idiomes en el context d'anglès com a llengua estrangera. Aquest estudi va avaluar el paper de les intel·ligències múltiples i l'educació artística en el rendiment dels candidats a l'sistema internacional de proves de idioma anglès. (IELTS) a la secció de lectura de l'examen IELTS i les seves motivacions. L'investigador va dissenyar les tasques visuals de lectura artística per a les habilitats de lectura IELTS d'acord amb les definicions d'Armstrong (2009) de tasques artístiques visuals per a les habilitats lectores, incloent a) tasques artístiques visuals per a l'aprenentatge de vocabulari i b) tasques artístiques visuals per a les habilitats de comprensió lectora IELTS. En aquest estudi van participar 54 candidats a l'IELTS que van assistir a una aula de lectura IELTS en un institut d'anglès. El grup experimental (N = 27) va implementar un programa d'educació artística per aprendre habilitats de lectura IELTS, i es va utilitzar el mètode tradicional d'instrucció per al grup de control (N = 27). En primer lloc, es va administrar una prova prèvia de lectura IELTS per als dos grups. A continuació, es va administrar a tots els participants l'escala MIDAS de Shearer (1996) en 119 ítems. Al final del curs, tots els participants van fer una prova posterior de lectura IELTS i un qüestionari de motivació. Els resultats van indicar que el programa d'integració artística va donar lloc a un rendiment superior als candidats en el grup tradicional a l'examen de lectura IELTS, en comparació amb el grup control. A més, la motivació dels candidats a l'IELTS que van assistir a un programa d'educació artística va augmentar significativament, i van tenir actituds molt positives sobre la integració de l'art a les aules de lectura de l'IELTS. Els resultats van revelar que la intel·ligència múltiple de tots els candidats a l'IELTS va afectar positivament el seu rendiment a l'examen de lectura IELTS, i el musical, cinestèsic i visual-espacial va contribuir més al rendiment de l'examen de lectura IELTS i visual/espacial en tercer lloc, i després d'això, la intel·ligència lingüística va tenir un paper important en la millora de les puntuacions de lectura dels candidats a l'IELTS. La intel·ligència lògica/matemàtica té un nivell moderat, interpersonal i naturalista, i la intel·ligència intrapersonal va tenir un impacte menys significatiu en el rendiment dels candidats a l'IELTS a la secció de lectura. A més, els resultats van indicar que la intel·ligència musical i la intel·ligència cinestèsica van fer una contribució única significativa al rendiment de predicció dels candidats a l'examen de lectura IELTS. Després d'això, la intel·ligència visual-espacial i la lingüística van tenir un paper important, respectivament.

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Abbreviations

MI	Multiple Intelligences
RC	Reading Comprehension
ESL	English as a Second Language
EFL	English for Foreign Language Learners
IELTS	International English Language Testing System

Abbreviations in Tables

E	Experimental
C	Control

Chapter 1: Introduction to the Study

1.1. Introduction

The arts enrich our lives, expand our senses of aesthetics, and in the context of foreign language learning, they can serve as invaluable tools for both language teachers and language learners. Art education incorporation in the classroom enhances learners' creativity and affects students' motivation since artful teaching and learning provide a setting that makes learning more joyful and enjoyable. Learners use their creativity during the learning process to express themselves better through the arts. Teachers also tend to implement more creative and initiative methods and techniques in teaching using arts. Arts education includes the usage of music, visual arts, performing arts as well as dancing (Zemberova, 2014).

Gardner's (1983) multiple intelligences approach focuses on art education and encourages integrating art and artistic tasks and activities in the classrooms. Multiple intelligences theory encourages integrating art and artistic activities into lessons and curriculum in the classroom. Many projects like "Project Zero," "Arts Propel," and "Project Spectrum" have been done to indicate the impact of using arts in education in all grades and levels (Project Zero, 2010). Teachers have the chance to take preparatory courses to discover how to successfully integrate the arts into the class to support student progress in an art-integrated setting. This training not only helped teachers understand the history of arts integration and how to design lessons that engaged students' multiple intelligences and artistic abilities, but it also aided in their comprehension of the concepts and ideas being taught in the content area class. Students may benefit from the application of arts integration because it allows for a positive and safe learning environment in which all students

take an active role, as it can stimulate students' thinking by providing possibilities for critical thinking and creativity and because it can offer a variety of learning methods (Appel, 2006).

Throughout history, art advocates like John Dewey, Elliot Eisner, William Torrey Harris, Catterall and Howard Gardner have been persuasive and successful ideas for the inclusion of art in school curricula. Advocates and associations promoting art are factors in changing American schools' and communities' views of art education's significance; however, the subjectivity of art makes it difficult to conclude a relationship between student achievement and student involvement in art education (Marino,2018).

This study aimed at investigating the effectiveness of using a multiple intelligences approach focused on art-based instruction to see how much art intervention can be beneficial in IELTS reading scores of IELTS candidates and to set how much doing artistic reading tasks and activities can be stimulating, enjoyable, and motivational for IELTS candidates.

1.2. Problem statement

Some IELTS candidates receive low scores in the reading section of the IELTS exam, and this may be due to a lack of IELTS essential vocabulary learning needed to comprehend the text or may be due to a lack of deep understanding of the text contents. It appears that IELTS candidates who attended the IELTS reading preparation classrooms try to understand the text quickly using a skimming strategy to retrieve the information for searching the main idea of the text and also a scanning strategy for finding the requested details to provide the answer to the questions. This appears to lead them not to focus on learning the content of the IELTS texts for deep understanding. This also may result in IELTS candidates memorizing the necessary vocabulary to get the desirable results in the IELTS exam without retention of words and materials.

Furthermore, it seems that IELTS candidates are under high pressure to achieve desirable results, and they have to learn IELTS reading skills in the traditional IELTS reading preparation classroom, which appears to be boring and exhausting and may result in decreasing the motivation of IELTS candidates. The results of numerous researches proved that implementing visual arts can promote learners' motivation, inspired the researcher to integrate visual reading art projects as an instructional strategy to make IELTS academic reading classrooms more exciting and joyful and to possibly increase the motivation of IELTS candidates.

1.2. Objectives of the study

The main objectives of the present research are as follows:

A) The first aim of this study is to assess the impacts of incorporating art education into IELTS reading preparation classrooms to determine how effectively the art education program impacts candidates' IELTS reading comprehension scores.

B) The second aim of the research is to create the multiple intelligence profile of IELTS candidates to assess which intelligences have a more substantial role in performance on the reading section of the IELTS exam in both the control group and the experimental group.

C) The third purpose of this study is to identify the impact of Art integration on the motivation of IELTS applicants and in lowering students' stress and anxiety about the IELTS exam in the IELTS reading preparation classrooms.

1.4. Research questions

I. Is there any difference between the performance of IELTS candidates on the reading comprehension section of the IELTS exam between the control group using the traditional method and the experimental group employing art education?

2. Is there any relationship between IELTS candidates' MI components and performance in the reading comprehension section of the IELTS exam between the control group using the traditional method and the experimental group employing art education?
2. Is there any difference between the prediction power of MI components and the performance of IELTS candidates on the reading comprehension section of the IELTS exam between the control group using the traditional method and the experimental group employing art education?
4. Is there any significant difference between the motivation scores of IELTS candidates in the control group using the traditional method and the experimental group employing art education?
5. Is there any relationship between IELTS candidates' Artistic task scores and their performance on the IELTS reading post-test in the experimental group employing art education?

1.5. Significance of the study

In terms of IELTS candidates, integrating Art in the IELTS preparation classrooms provides a dynamic and encouraging setting for them to engage in diverse artistic tasks and activities instead of participating in the traditional IELTS classrooms that are routine and boring.

There is a critical problem with IELTS candidates in that they may not be instructed for deep understanding. Students memorize the materials instead of reading for deep understanding. This study suggests employing Art Education as a model of instruction which focuses on using art teaching and learning for deep understanding to promote students' IELTS reading comprehension ability of IELTS candidates.

Furthermore, the results of this study encourage team teaching collaboration and also peer and group learning where the researcher as an advisor is working with the IELTS instructor and art

expert while IELTS candidates are doing artistic projects in the form of individual tasks and also peer or group projects with their classmates.

Thus, employing exciting artistic tasks appears to be beneficial in decreasing the sense of anxiety and pressure that IELTS candidates and supports them in experiencing an Artistic and enjoyable, and fun setting in Art integrated IELTS Reading preparation classrooms. Furthermore, it seems that Art integration may enhance the motivation of IELTS candidates during the course of study to a high degree.

In terms of IELTS test instructors, the gained results would be supportive in recognizing the intelligence profile of IELTS candidates and realizing which intelligences play more important roles in the performance of IELTS test takers in the reading section of the IELTS exam in both the experimental and control group. The data of this research would be beneficial for teachers in IELTS preparation classrooms to foster intelligence which plays an important role in developing IELTS candidates' reading skills to have better performance on different item types of reading comprehension section of the IELTS exam.

In terms of IELTS test designers, the outcomes of the current investigation will inform them of the efficiency of the roles of multiple intelligences in the IELTS reading comprehension section in developing the tests which are sensitive to the most components of intelligence. It also encourages test designers to be familiar with new models of instructions that are compatible more with a new model of assessment.

1.6. Structure of the Study

In the first chapter of this study, a brief general background of the MI approach with a focus on art education is reviewed, then the problem statement and the purposes of the study are presented. The second chapter consists of a review of related literature which includes three parts:

1) In the first part, art education was defined, and the theoretical and rationale for art-based education based on the MI approach were explained at the end of the chapter; all the previous and recent studies related to art education that impacted students' academic achievement were presented. Finally, as the aim of the present study, all relevant studies carried out to investigate the effectiveness of art-based integration in the reading comprehension ability of language learners were presented.

2) In the second part, the Multiple intelligences theory was explained, and multiple intelligences were defined. The implications of multiple intelligences theory in schools were explained. Also, the multiple intelligences approach with emphasis on art and art-based instruction was described. At the end of this part, all relevant research conducted to investigate the role of multiple intelligences in performance on the IELTS reading comprehension exam, which is the second aim of the present study, were presented.

3) The third part focused on the reading comprehension skills of second language learners. First of all, Reading Comprehension was defined; second, the reading process and different components of reading were explained. Third, all reading models were explained, and then the reading comprehension assessment types and a variety of test formats that were mostly used in the IELTS reading exam were described. Fourth, the nature and structure of IELTS as a reliable reading comprehension proficiency test were considered. Finally, some important strategies that could be beneficial for IELTS candidates during the IELTS reading exam were explained. In chapter three, the method and procedure of the study were presented. Chapter 4 described the data analysis, and in Chapter 5, the results of the study were presented; also, some discussions about the findings were provided. Finally, the significance of the study and the implications for further research were described. At the end, the references appendices and Annexes were attached.

Chapter 2: Review of Literature

2.1. Art Education

2.1.1 Introduction

Art enriches our lives, expands our sense of aesthetics, and can be an invaluable instrument for language instructors and language learners in the EFL context. Art education integration in the classroom enhances learners' creativity and motivates students since Artful teaching and learning provide an environment that makes learning more joyful and enjoyable. Learners use their creativity to express themselves through art better during the learning process. Teachers also tend to implement more creative and initiative methods and techniques in teaching the arts. Arts education includes the use of music, visual arts, performing arts, as well as dancing (Zemberova, 2014).

Nowadays, students have a variety of learning preferences, and instructors are required to adjust to match their needs. One approach to achieve this is to incorporate arts in the curriculum; this will provide learners the opportunity to use their capabilities along with their talents to demonstrate their understanding of the contents, select how to present it, master their acquisition, and be inspired to educate. Arts-based teaching is an approach that makes differentiated instruction to suit the requirements of various students in today's classrooms (Tucker, 2017).

One of the attractions of utilizing art in teaching is its ability to link different realities through emotions, permitting learners to understand and empathize with challenges outside of their daily life. Vygotsky (1971) posits that an artwork is a single, consciously organized system designed to evoke a specific emotion.

As children, we find tranquility and pleasure when we pick up colored pastels and markers to sketch a picture as a natural act of our self-expression and as entertainment (Daniel, 2010). This behavior is natural and seems comfortable for us as the youngest. As adults, a change happens, and if we are in a career, we will never be satisfied with the desire to take up another pencil to sketch or visually express our views and feelings. Why is this change happening? What happens in early infancy, from youth to adulthood, and affects our need to create and express ourselves creatively? The answer lies in the school district's decision to eliminate the arts from the curriculum, which has resulted in a lack of a well-balanced education for our students (p.2). Numerous studies indicate the direct correlation between academic achievements in mathematics, English language, and arts that are qualified as providing learners with a continuous and reliable arts education program (Eisner, 2002).

Art has always been one of the highest expressions of every culture. Art has taught us a lot about every historical phase through literature, visual arts, music, dance, and theater. Today, it is acknowledged that to be well educated, a person must acquire an appreciation of art and must have rich opportunities to actively engage in creative work (Daniel, 2010). Art is the language spoken by most people and gets across individual differences in cultures, backgrounds, and abilities. They have the ability to make any subject come to life and transform abstraction into concrete reality. Art education often results in higher academic performance and test scores improvement (Daniel, 2010).

2.1.2. Definition of Art education

The definition of arts integration established by Beverley Taylor Sorenson and the BYU Arts Corporation (2017) was applied to the present study: Arts integration is an approach to teaching in

which learners engage in creative processes by discovering, reflecting, interpreting, connecting, applying, and representing knowledge of specific purposes in several content areas. Integration happens when the learning and implementing skills from various content areas are synergistically and authentically linked to each other. Authentic inclusion reflects students' real experiences, which equip them to contribute positively to society (p.8). The definition recognizes identical elements contained in similar organizations. They acknowledge that "art integration" is vital in schools to the humanistic experience of learners and teachers. The ultimate aim is to create conditions where we value students as creative individuals who make interpersonal relationships while they deepen their understanding of the world (Goodlad et al., 2004). The framework offers multiple pathways for interweaving the arts, other subjects, and contexts to enable meaningful learning and growth (McCulloch, 2019).

Any artistic integration must foster authentic and natural relationships between disciplines. Integration best happens when courses focus on central themes and produce measurable results. The preparation and confidence of each teacher specify the choice of artform integration. Art integration promotes authentic contextual experiences and exposes learners to academic content in an inherently motivating way. Educators enhance vocabulary exposure as they acquire contextual knowledge through art forms in a particular content area. Learners will require this infrastructure and vocabulary to examine and interpret content area text (McCulloch, 2019).

Mishook (2006) argued that educators often have different definitions of art integration, and these definitions vary in the quality of their dealing with art. In its best state, art integration puts the same emphasis on both the 'artform' and 'content area' being referred to. Both of them reached

the same merits during teaching, and each had the same level of rigor in their learning objectives (Sorensen, 2010).

For some educators, however, arts integration in practice means something entirely different. They believe that art forms are better to use as a complement to the curriculum, and the lessons should focus on content areas. In this context, art acts as a "motivator" for students, and teachers use it to add taste to a lesson, enhance core concepts, or create contextual music for main learning activities (Mishook, 2006). While some teachers see it as arts integration, the value of arts education is compromised when educators consider arts integration as a complementary activity (Sorensen, 2010).

Eisner (1972) defines two recognized arguments to justify the use of art in education:

contextualism and essentialism.

- The contextualist approach, which is called the utilitarian method, uses art to achieve specific goals, such as assisting in the study of history or stimulating creativity. This view is consistent with Dewey and Vygotsky's idea that art has a significant role in developing a deeper understanding through complex creative thinking (Eisner, 2002).
- The essentialist approach, on the other side, considers art as a very special and precious experience (Dewey, 1980), which has a certain consistency for each person, which activates the sensitivity of the observer and elevates his or her expression of values that it can act as a visual metaphor. Contemporary art appears to have both contextual and essential functions: contextual in that we apply it to teach to foster creativity, and some students must choose artworks and use them metaphorically (Arriba et al., 2019).

2.1.3. The Benefits of Art education

Many pieces of evidence confirm that arts-based instruction has many positive effects (Rooney, 2004). Organizations participating in art partnerships are supposed to experience better settings and collaboration. Teachers who contributed to professional growth became more creative. Arts education tasks and activities increase student enthusiasm and motivation and improve cognitive abilities for academic achievements (Rooney, 2004).

According to Rooney (2004, p.6) art education has many positive outcomes:

- *At the societal level, art-based education expands relationships and improves collaboration between associates*
- *Art-based education improves classroom and school environment*
- *Art-based instructional practices elevate teacher quality*
- *Art-based teaching develops study skills*
- *Art-based instruction develops thinking skills*
- *Art-based instruction enhances interest and motivation*
- *Art-based instruction increases self-esteem and the inclination to try new things*
- *Art-based instruction develops nervous systems*
- *Art-based instruction appears to enhance academic achievement*
- *Art-based learning can be generalized to other learning*
- *Art-based instruction appears to result in social development*

According to Brown (2007, P.173), art integration benefits for students include:

- Creative thinking and problem resolving
- Oral and non-verbal articulating skills

- Used to learn in innovative settings
- Advance collaboration abilities
- Enhanced self-confidence
- Higher level of learners' motivation

Rooney (2004) refers to useful affective and cognitive effects for learners who engaged in the art-based program before university. Affective progress refers to enhanced interest in learning, self-esteem, and desire to try new things. Cognitive progress comprises skills that can be functional in learning settings, such as creativity, self-study, and complex thinking abilities, including the ability to comprehend, interpret and solve problems (Arriba et al., 2019).

Jolley (2016) stated that art education promotes several benefits in multiple ways. Among the benefits of art instruction is: increasing learners' imagination and creativity. Permitting them to comprehend and express their emotions and thoughts. Helping students to perceive and visualize the main topics and concepts. Assisting learners to perceive and understand the world better, aiding them to make decisions and solve problems, and creating virtues like attention and perseverance (Panzalan, 2018).

Ochshorn (2016) argued that arts-based instruction is important since it fosters performance. She said it enhances class attendance, learning capacity, critical thinking, and creativity. A great arts education helps students appreciate and develop their understanding of the specific and distinctive ways that art shape people's thoughts and their lives. Eisner (2013) The value and beauty of art are enormous and endless. According to Booth D. (2016), techniques are ways of learning, exploring, replying, exhibiting, imagining, representing and making meaning. They are associated with the school curriculum since they link to the hearts and minds of lifetime learners

The arts have inherent benefits for participants. However, proponents argue that arts play an essential role in public instruction since they advance knowledge and skills that transmit to learner performance in some academic fields, have a positive effect on affective and social learning, and foster artistic ability and creativity, which are precious abilities in today's modern economy (Eisner, 2002; Deasy, 2002; Winner et al., 2013; as cited in Bowen & Kisida, 2019, p.2).

Proponents of arts education contend that engaging in the arts fosters students' self-expression, creativity, and compassion (Ruppert, 2006; Zimmerman, 2009) and helps as a way to enhance cognitive abilities, which foster critical thinking skills (Eisner, 2002). Some investigators indicated that art education had a positive effect on academic achievement, for example, teaching drama, which seems to improve verbal abilities (Podlozny, 2000), and teaching music, which appears to increase intelligence level (Neville, 2008; Moreno et al., 2011) and enhance reading and mathematics abilities (Moreno et al., 2009; Standley, 2008).

Researchers found that exposure to the arts improved learners' tolerance, historical awareness and sympathy, and ability to think critically about artworks and evaluate art (Bowen et al., 2014, as cited in Bowen & Kisida, 2019, p.5). Programs that integrate the arts expertly improve students' social, academic, and artful learning outcomes (Scripp & Paradis, 2014). They understood that giving kids the chance to express their understanding of the concepts through art resulted in a "more equitable learning culture."

Numerous studies have reported linguistic and literacy benefits in school for underserved individuals, including kids learning English and children with disabilities (Hancock & Wright, 2018). For instance, preschoolers who participated in a course called Art as a Way of Learning, which implemented the arts integration, demonstrated enhanced literacy and school preparation (Phillips et al., 2010). The "Art as a Way of Learning" methodology incorporates the visual and

performing arts into extended and multi-shape collaborative projects in the curriculum. Children did better on standard examinations of printed knowledge, linguistic awareness, vocabulary, writing, knowledge of the alphabet, the meaning of words and reading standards (Becker, 2020).

2.1.4. Art as a teaching process

Galvez (2018) argued that students respond to information differently. As a result, it is beneficial for teachers to teach a lesson in diverse styles and formats. Galvez (2018) asserts that students respond to information in different ways. Consequently, teachers frequently benefit from teaching a lesson in various ways and moods. Caldwell and Vaughan (2012), Dwyer (2011), Hartle (2015), Melnick, Whitmer and Strickland (2011) and Reeves (2007) noted that art education deserves an extraordinary part in the heart of the education curriculum because of its many advantages, mainly in reasoning and critical thinking. They stated that art education is one of the main constituents of greater elevations in academic teaching.

Melnick (2011) indicated that art education has numerous cognitive benefits, including increased academic achievement, creativity, imagination, and self-expression, which awaken students' minds and stimulate the brain. He proposed that art education might act as a future model for fruitful educational ambitions and practices. In 2000, Eisner created a list of three outcomes or findings from her art teaching experience. Students acquired the method of translating thoughts and ideas into a form or structure. (Panzalan, 2018).

- Students improve their analytical and perceptual skills.
- Students comprehend how arts, culture, and history are intertwined.
- Students persevere over ambiguity.

2.1.5. Art as a learning Process

In art courses, students learn to advance the ability to reason, think critically, and be creative. They learn how to communicate and work together and enhance their communication and collaboration skills, well as how to use various forms of technology. They gain a deeper appreciation for different approaches and points of view and the ability to approach others with honesty and flexibility by studying various works of art. They also learn new ways to approach problems and present ideas in innovative ways, teach and persuade, entertain, and design with aesthetic considerations. Through participation in art classes, students learn to enhance their ability to listen, observe, and become more self-aware and self-confident. It encourages them to try new things, devise creative solutions to issues, and utilize their ingenuity and inventiveness. O'Farrell & Meban (2003) stated that a wide range of endeavors can benefit from the knowledge and abilities acquired through the study of the arts (Panzalan, 2018).

Experiments and play are great ways for children to learn. The students were encouraged to use techniques across all subject areas of the curriculum. Using visual arts in diverse learning areas helps learners to participate, which makes them gain confidence. They acquire new skills and knowledge as they enjoy creating art. Learners may have good feedback for individualized instruction. The arts can be used in other areas of education, like drawing, acquiring scientific concepts through art, such as light, and color mixing, etc. acquiring mathematical concepts through the medium of art (such as space, perspective, angles, and shapes); using arts and crafts to learn about social and environmental issues (such as clothing, lifestyle, housing, etc.); and some evaluations are conducted using techniques rather than other methods such as testing. In fact, it can enhance the learning of any subject effectively (Panzalan, 2018).

2.1.6. Art-Education & ESL learning

Art integration for foreign language learning in the classroom can not only improve a student's understanding of art but also increase their learning ability through viewing, listening to, discussing, sharing, and creating art. It can also help them improve their vocabulary in foreign languages and all language skills. Responding to the arts can be exciting and inspiring and lead to a variety of language activities. Art can be used in a variety of interesting and motivating ways for teaching reading, writing, vocabulary, and practice. Through reflecting on the art, teachers can encourage students actively involved in the language learning process and make them draw on their personal experiences. When they are talking about pictures of familiar objects, animals, or landscapes. In giving feedback to or creating art, more senses are involved in the learning process. Art naturally lends itself to working with students with different learning preferences, leading to the gradual development of multiple intelligences. (The New York State Educational Department, 2014).

A great benefit of employing art in foreign language classes is that it can be interacted with and dealt with in a nonverbal way. This is especially helpful for students who understand more than they can express themselves or when fear of making errors prevents them from advancing their language skills. The ability of students to think creatively and critically can be enhanced through the integration of art in education. It stimulates their imagination, encourages their creative thinking, provides them the chance to engage in new ideas and approaches, enables them to attempt new things, and helps in the development of a positive view toward learning, understanding others, and communicating their thoughts and expressing their ideas (The New York State Educational Department, 2014).

By incorporating art into the ESL context and encouraging students to communicate their ideas visually as well as by speaking and writing, teachers enable to:

- *Build on previous Knowledge*
- *Support Teaching*
- *Make a bridge between spoken and written language*
- *Make education meaningful and relevant*
- *Support learners to progress their self-esteem*
- *Foster creativity*
- *Create an appreciation of the past*
- *Highlight differences and resemblances*
- *Encourage higher-order intellectual skills*
- *Foster high levels of reasoning, analysis and enquiring*
- *Enhancing creative thinking*
- *Support problem solving*
- *Emphasis on communication and interpretation of ideas*
- *Increase student's methods of observing and representing as well as reflecting on the world*

(The New York State Education Department, 2010).

2.1.7. Artistic tasks & Activities

Artistic activities include assembling a book from an individualized image, matching the images to the related text, coloring and describing the pictures, and s activities related to individual seasons and, therefore, linking arts with language practice. It is critical for the fostering of

creativity and learning to engage in art-related activities such as intuitive drawing, music, dancing, gaming, activities, or reading literature that impacts our emotions. (Zemberova 2014).

According to Zemberova (2014, p. 246), in an artful setting, a wide range of arts, artistic tasks, and activities can be used for instruction in the classroom like:

- *Utilizing various fundamental art materials to create works of art related to the subject matter being studied, including posters, illustrations, and drawings.*
- *Reading or listening to a poem, song, or other short text and making meanings through making drawing*
- *Create a poster or other project that discusses the land, culture, or a specific period in history.*
- *Study, debate, and write about the art of the place, people and time.*
- *Discuss the various ways in which a work of art can be interpreted in other mediums.*
- *Examine and discuss art related to a wide range of subjects, including families, animals, seasons, landscapes, nature, and so on*
- *Create a journal.*
- *Create a mini-book by matching the text to the individual pictures, then coloring them.*
- *Develop a narrative handout*
- *Draw illustrations of the book's various actions, objects, or text pieces and organize them in the correct sequence to retell the full story*
- *Write a poem (Haiku, limerick, or acrostic)*
- *Use templates to create puppets or paper figures for use in the dramatization of a story.*

2.1.7.1. Sketching or Drawing pictures

This study utilized sketching the mental image of the paragraph's content or its related concept as one of the fundamental artistic tasks for IELTS candidates. There are also some tasks to sketch the picture that are related to the meaning of the known or unknown vocabulary.

According to MacDonald & Vines (2019, p.60), using drawing as a teaching instrument:

- *Promotes inventive, inductive, dynamic, and playful thoughts through quantitative results*
- *Offers a safe, accessible, and non-judgmental way for making claims and statements of individual knowledge.*
- *Promote the development of meaning in learning by personalizing the connection between new ideas and prior or existing knowledge.*
- *Increase knowledge retention by a tailored method that is generally viewed as new.*
- *Credits the act of drawing and acknowledges its immediacy, which inherently places the student as an emerging self-authority on a topic, notion, or piece of new knowledge (and can simultaneously reduce information overload).*
- *Encourages and broadens the practice of fundamental sketching techniques as an ongoing activity.*
- *Promotes creative visualization and thought.*
- *Provides support for a wide range of student cognitive needs and schemata.*
- *encourages left-brain synthesis thinking and right-brain stimulation in educational structures*
- *Encourages the incorporation of art into all other subject areas.*

2.1.7.2. Rationale for Using Learners' Drawings

Sketching or drawing adds novelty to content instruction, increasing students' mindfulness and engagement in the education process (Andrade, 2010). Additionally, Grant, Langer, Falk, & Capodilupo (2004) found that students' perceptions of competence improved when participating in an engaging and stimulating drawing activity. Children can share their experiences through art expression; It is a form of self-externalization, an extension of oneself, and a visible projection of ideas and emotions that correspond to each child's priorities (Golomb, 1992). Therefore, according to Paivio (1986), sketching is comparable to adding visual ornaments to verbal learning process, where mental pictures serve as a unique route for learning and recalling information and help to improve memory (MacDonald & Vines, 2019).

Sketching is a visual, art-infused method of taking notes that fosters students' understanding of abstract concepts by constructing thoughts and self-made drawings (Ainsworth et al. 2011). Sketching, as an artistic process, encourages students' fluid, dynamic thinking specific to each learner. Students' sketches authentically make the relevance of new notions, which may lead to a deeper processing of knowledge through the transforming act of sketching, resulting in meaningful cognition (Ainsworth et al.,2011; Andrade, Lin & team, 2017, as cited in MacDonald & Vines, 2019, p.53). Their intellectual capacity is meaningfully tested when they use graphics to understand new abstract concepts. The benefit is "mind mapping" uses a visual technique to unlock the brain's full capacity by integrating both the right and left hemispheres of the brain to function as a whole " (MacDonald & Vines 2019).

There are some rationales for implementing sketching strategies for teaching reading comprehension skills in academic contexts. Prior to anything else, Drawing is a task that, on the level of "activity" (Willis & Willis, 2007, p. 136), as well as situational and interpersonal activity (Ellis, 2003, p. 6), closely resembles real-world experience. People like drawing as a way to spend time or just to satisfy their personal hobbies. The sketching job is regarded as "situationally" authentic at this level. Additionally, when sketching, individuals occasionally talk to one another about what they are planning to draw, what they have drawn, how certain drawings might look out, etc. The sketching assignment is regarded as having interactional authenticity at this level. The students are given a chance to debate, argue, and explain a variety of topics linked to the artwork in the target language. Drawing tasks are advantageous because of their situational and interpersonal realism, particularly in improving reading comprehension. According to Willis and Willis (2007), realistic tasks are frequently beneficial and inspiring to advance learners' language skills. The students may concurrently develop their conversational abilities in the target language

and their knowledge of the text through debates, arguments, and explanations throughout the sketching process (Sukma et al., 2019).

Second, it appears that the sketching assignment is engaging. According to Altun (2015), it appeals to pupils, especially those who learn best visually. The students required less work to finish the sketching task than it did for them to write a book summary after reading it (Elliot, 2007), making it more fascinating and pleasurable overall (Gidoni & Rajuan, 2018). It is fairly typical that students in many reading classes be taught to read using a very traditional method that generally concludes with them having to respond to comprehension questions following reading a material. It lowers kids' interest in reading activities. Students might therefore find rebirth through the sketching assignment. Drawing is "situationally" genuine, meaning that kids are already highly familiar with the activity via daily life; hence it requires less effort (Sukma et al., 2019).

Thirdly, the drawing assignment encourages discussion among the students on the subject matter (Elliot, 2007). Students will actively engage in conversation with their partners while they complete their drawings or when they present their paintings to the class. The learners will get the chance to use the target language in this context meaningfully. Additionally, the sketching assignment encourages students' creativity, promoting involvement and confidence in their learning ability (Gidoni & Rajuan, 2018). In order to learn, creativity is essential. According to Richard (2013), creativity offers an effective means of engaging students in their education. Drawing exercises encourage students to pay attention to the text's intricacies, make inferences, draw conclusions from the text, and create relevant images.

Drawing exercises are a very efficient strategy to teach learners reading comprehension; since most individuals engage in drawing tasks in real-world settings and have the chance to connect, they are situationally and interpersonally authentic. It is also attractive and encourages

students' inventiveness, which results in strong involvement, motivation, and confidence in their ability to learn a language (Sukma et al., 2019).

2.1.8. Visualization or Mental Image

Mental imagery needs the reader to visualize or create an image of what they have read, often known as visualization. This image is retained in the reader's memory as a representation of the readers' interpretations. Mental imagery has been defined as the capacity to generate mental images and the act or process of generating conceptual representations visually. The ability to visualize an image and/or a situation associated with words and expressions aids the reader to meaningfully understand, organize and connect the thoughts in mind. In order to achieve this, the visual information is encoded and associated with an interior image which can be reactivated by recalling the image. The visual information is summarized after filtering. They are eventually preserved as mental representations of abstract predicates. After that, memory reactivation happens with respect to recalling the abstract code followed by the relevant mental imagery (Nelson, 2005). According to Reynolds and Miller (2003), this skill, as a powerful instrument, combines encoded speech and visual data, storing the information in combination with the person's past knowledge in long-term memory (Poushaneh & Azar, 2020).

At present, several imagery techniques exist, including creating mental images from still images, creating mental images of parts of the text, mental imagery by communicating ideas, and trans-mental imaging of perceptions learned during the training of reading skills (Nelson, 2005). All of them are extremely effective on the readers' motivation (Harvey & Goudvis, 2000), and they considerably impact reviewing prior information (Keene & Zimmerman, 1997) and expand people's vocabulary capacity. (Zwiers, 2004), and better acquisition of words and text (Gambrell & Bales, 1986). Numerous studies have demonstrated that language learning programs based on

the mental imagery method improve students' reading comprehension abilities. Take, for instance, the outcomes of studies carried out by Ghazanfari, Erfani et.al., (2011); Rahbar and Niknejad (2015); Gha'ediand Shahrokhi (2016); Zafarpur and Tabataba'ee (2015) revealed that reading motivation, reading proficiency, vocabulary size and reading comprehension, can all be enhanced in adult learners through mental imagery (Poushaneh & Azar, 2020).

2.1.9. Art-Education Discussion

Numerous studies have been carried out to encourage art education over the past ten years. Art proponents and well-known theorists and practitioners like John Dewey, Elliot Eisner, William Torrey Harris, Catterral, and Howard Gardner have proposed the inclusion of art in the school curriculum throughout history. These theorists have acknowledged and confirmed the students' lifelong benefits from the arts (Marino, 2018).

Gardner (1993) provides a foundation for cognition research and a historical overview in supporting art (Marino, 2018, p. 5). The multiple intelligences theory supports incorporating artistic activities into the lessons in the classroom curriculum. Numerous projects, such as "Project Zero," "Arts Propel," and "Project Spectrum," have been carried out to demonstrate the impact of incorporating the arts into education across all grades and levels. Chapter 2 of the literature review titled "Multiple Intelligences" provides a comprehensive description of these remarkable artistic projects and endeavors in more detail.

Gardner's artistic projects inspired the researcher to concentrate on the multiple intelligences approach because it strongly emphasizes art education and uses a variety of artistic tasks and activities in the classroom, particularly in the ESL context. It encouraged the researcher to design art-integrated reading tasks for IELTS candidates who attended IELTS reading preparation

classrooms. The current investigation was founded on the art-integration projects that Gardner developed in 1999.

The Multiple Intelligences Teaching Method emphasizes what individuals can do rather than what they actually do in order to bring different approaches to differences. In addition, it claims that effective outcomes can be achieved by providing education that caters to a variety of learning styles. "Visual arts education" is one of the areas which this understanding has the greatest impact. One of the most significant findings of this theory for "visual arts education" is that "artistic learning" is also a cognitive activity. Gardner, based on his own findings, argued that "artistic learning" is definitely a cognitive activity because students learn a variety of cognitive, emotional, and psychomotor skills (Marino, 2018).

According to Gardner, children can foster a diverse range of intelligence through involvement in the arts, and the arts allow kids to express what is significant to them in various ways of expression. The philosopher and educator Dewey was a supporter of integrating the arts in the classroom. Heilig, Cole, and Aguilar (2010, p. 136), cite Dewey's assertion that art should be a priority in education, "a fundamental component of the curriculum since it fosters creativity, self-expression, and an understanding of other people's expression. He argued that kids need an authentic education that gives them a chance to be critical and creative thinkers and advance mentally, physically, and socially" (p.137). Dewey contended that children can promote their new views and understanding of the world around them by engaging in the arts (Lloyd, 2017).

The "father of art education," Lowenfeld (1970), promoted the application of art in the classroom. He spent his whole teaching career working at a school for blind children, where he became passionate about using art as therapy (Efland, 1990, p. 234). As a pioneer in the area of arts education, Lowenfeld's work demonstrated that not only can the arts be used to treat, recover,

and teach kids with impairments to be social, but also, these kids will become competent and valuable (Efland, 1990). He detailed how creating art fosters self-expression, identity, independence, flexible thought, human interactions, and overall health in his 1970 book *Creative and Mental Growth*, Fifth Edition. Kramer (1971), a pioneer of art therapy, asserted that art is restorative and helps children with impairments develop their skills and aesthetic awareness (Lloyd, 2017).

Arts have always been thought of as a part of the human emotional experience (Efland,2002). The notion that artworks can engage children emotionally with the subject was the reason cited by proponents of incorporating the skills into academic programs (Greene, 2001, Eisner, 2002, Kindler, 1997).

According to Eisner (1999), art education not only aids students' success in other subjects but also enhances their lives outside of the classroom. Students learn about all subjects in a fun and exciting environment in art classrooms (Panzalan, 2018).

Cognitive pluralism is one of the curriculum orientations, according to Eisner (1999), this viewpoint highlights the notion that learners should be given a chance to learn and express their knowledge and understanding using a various range of representational forms (Panzalan, 2018).

Chapleau and Iwanaga (1999) investigated how student engagement in the "arts" impacted "academic achievement," They analyzed NELS data from 25,000 students in the United States in grades 8 to 12. They found that students who participated in the arts excelled academically in all grades (8th-12th). Learners who attended theater and arts activities such as plays, musicals, drama clubs, and acting workshops "had advancement in "reading competence," "self-concept," "motivation," and indicated stronger levels of empathy and "patience" for others (Lloyd, 2017).

Other researchers looked into the relationship between "art" and "academic achievements," and the findings supported the notion that high-quality arts integration positively impacted students' "academic success." The results of a longitudinal study using a model of multi-art integration that was utilized in regional public elementary schools in Los Angeles showed that students' competency on standardized exams of English Language Arts improved continuously and noticeably in comparison with the corresponding selected schools that had separated independent arts programming (Peppler et al., 2014).

2.1.10. Visual-Art Education

Visual art education has become a big challenge and argument for people from all over the world. It appears that students are unable to expand the other areas of their academics without art instruction. Visual art education can have a significant impact on everyone's life from a young age. Depending on how language arts are taught and experienced at an early age, students will succeed in education in the future. Visual arts teaching has a significant positive impact on students' daily lives. Paul T. Sowden, a psychology professor, cautioned that the arts and humanities have recently suffered in Britain and the United States as the emphasis has switched to science and technology. He emphasized the need to provide all individuals equal access to arts education. However, he argued that exposure to the arts gives children the ability to learn perseverance, resilience and assists them in acquiring complicated abilities (Klass, 2019, as cited in Conway, 2019, p. 3).

The central ideas of the definitions of arts integration provided by the National Art Education Association (NAEA) and the John F. Kennedy Performing Arts Center support cross-disciplinary cooperation and global design. The Early Childhood Art Educators Issues Group, according to NAEA (2016), stated that visual arts are vital for kids from birth to 8 years old and that children are best aided by an interdisciplinary approach (NAEA, 2016). Additionally, describes that the

visual arts support various ways of knowing and learning. This idea reflects the universal learning design (UDL) foundations. According to Glass and colleagues (2013), the arts can increasingly provide the opportunities that UDL demands (p. 99): various methods and instruments for engagement, reflection, and expression.

Integrating the visual arts into the curriculum gives it depth and motivates students to be involved in, explore, and understand academic material in multimodal methods (Mason et al., 2008; Reif & Grant, 2010). Children have different choices to communicate effectively and generate meaning through the visual arts (Martens et al., 2012). The John F. Kennedy Center for the Performing Arts defines arts integration as "an approach to teaching in which learners make and display their understanding through a form of art, involved in a creative process which links an art form to a different subject area and accomplishes evolving objectives in both" (Silverstein & Layne, 2010, as cited in Becker, 2020, p.167).

The visual arts are perceived as a precious and useful instrument in early education and for society. Visual art instruction assists students in gaining a better understanding of basic skills like reading and writing, which are vital and fundamental for daily life. Furthermore, it helps improve interpersonal communication, whether improving one's higher speaking quality and body language or learning another language.

Increased self-esteem, self-understanding, communication ability, and cognitive development are among many justifications for teaching the arts (Swapp, 2016, as cited in Conway, 2019, p.3). Exposing children to art and culture can significantly affect their development, despite the fact that legislators and school administrators pay very little attention to the arts (Greene et al., 2014). When young people are exposed to the arts, their values are influenced, and they develop more tolerance and empathy. The art experiences help children improve their capacity to think critically and

encourage them to be more comprehensive and cautious in their findings and perceptions of the outside world.

According to Winner & Hetland (2008), Visual arts education teaches a unique set of skills that aren't always created in other parts of the curriculum for education. These abilities include:

- visual-spatial skills
- reflection,
- self-criticism,
- experimentation and desire to learn from errors

Visual art is art forms that generate works that are mainly visual in nature. Art genres such as pottery, drawing, painting, sculpting, printmaking, design, handicrafts, photography, video, cinema, and architecture are examples of visual art. In addition to applied arts like industrial, graphics, fashion, interior, and ornamental design, visual arts also encompass performance arts like drama, dance and theatre.

Various arts integration and art teaching methods are:

- **(a)** Dance, theatre, visual arts, and music are taught separately in classes focusing on helping students master the art standards.
- **(b)** Artistic activities are utilized to teach concepts or other academic material that is not artistic (e.g., Through dance or movement, literacy can be improved by forming the body into a certain letter)
- **(c)** The arts are used to highlight academic ideas and make the material more visually appealing (for example, using warm and cool colors when creating maps in science classrooms) (Hardiman et al., 2019, referenced in Conway, 2019. p.9).

According to research, kids acquire "six extra dispositions, including watching, envisioning, reflecting, expressing, discovering, engaging, and persevering, in addition to the behaviors that are exclusive to the visual arts" (Hetland,1994, p.7). When visual arts are introduced into L2 acquisition, these attitudes may enhance and raise a learner's potential for learning the intended language. When using the arts to learn a second language, mechanical verb conjugation memory can be substituted by an "aesthetic" understanding of what such verbs imply and how to pronounce them (Freedman, 2003). Students will benefit from an "emotional" learning experience with the help of a painting showing horses galloping in a grassland. This will help children generate fresh memories that will assist them remember the words "galloping" and "meadow" from earlier experiences attached with those two pictures. The aesthetic emotional experience also strengthens prior research findings on the strong connection between emotion and cognition, and the significance of matching the emotional constituent found in L1 to the new language L2. (Kensinger, 2008). "Through aesthetic appreciation, learners can identify feelings and states of mind" (Azevedo & Gonçalves, 2012, referenced in Martello, 2017, p.57).

The visual arts can be utilized to support student language acquisition by offering intellectual contexts for critical thinking and by employing images as a way to pose questions pertaining to political, societal, and cultural contexts while incorporating language learning. (Kramsch & Whiteside, 2007). The use of visual arts is a sample of an authentic application of L2 or second language teaching techniques. When art becomes the subject matter presented in the target language, learners are able to learn by "using" the language rather than "learning," like native speakers (Cook, 2002).

There should be more possibilities for "fluency" for students of all levels. Knowing on the proverb, "picture is worth a thousand words," when students talk about art, contemplate what they see,

and reflect what the painting displays, they mix their emotional response with their cognitive skills, which leads to greater learning and increased individual engagement (Martello, 2017).

The visual arts support students' participation in cross-disciplinary learning. Through the arts, learners can understand a variety of subjects, including geography, literature, history, and more. Art aids students in developing their language and cultural awareness by making a link between content and language. According to Krashen (1981), art has the potential to reduce students' anxiety in the classroom while enhancing their cognitive abilities by welcoming different ideas and, therefore, giving a particular voice to each learner (Martello, 2017).

In "visual arts" classes, differences between students can be more evident. Some students who are more intelligent may benefit more from their visual perceptions than others. Visual perceptions may differ between students who have different intelligence types. It is believed that students with a variety of intelligence, like linguistic, spatial, mathematical, bodily and kinesthetic intelligence, are better able to express themselves through their paintings when they participate in educational activities that are adaptable and consistent with their intelligence types. According to Kaya (2016), p.260, Gardner's multiple intelligences teaching method is anticipated to improve students' success in visual arts classes and contribute to the permanence of the knowledge students acquire.

The three constituents of language instruction, motivational strategies, and artful visual content must all be integrated, and teachers are essential to this process. They need to choose visual resources wisely, paying close regard to the pupils' cultural backgrounds and linguistic skill levels, even though they are not expected to be specialists in art.

It would be easier for students to participate in class discussions if teachers used teaching strategies incorporating their prior information. This would increase their motivation, lower their

emotional filters, "feed" on their ideal L2 selves and increase their interest in learning the target language (Martello, 2017).

2.1.10.1. Visual-Art Education Implications for Reading Comprehension

Can teaching in the visual arts improve reading comprehension? Researchers in arts education have often made this claim and suggested that the application of visual arts can greatly improve teaching foundational skills in kindergarten and elementary school. There are two distinct cognitive and motivational processes through which visual arts education could improve reading skills.

- The cognitive mechanism would include the transmission of skills. Perhaps training in the visual arts improves visual perception abilities (such as pattern identification and attention to detail) that can be utilized in reading. If kids that struggle to read are lacking in reading due to a deficiency in the perception of visuals, and if teaching in Visual Arts enhances the same kinds of visual perception skills needed for efficient reading.
- The motivating method would utilize the visual arts as a gate to reading. Given interesting art projects incorporated with reading and writing may encourage children to read and write. In this instance, however, there is nothing special to visual arts as a medium for teaching reading. A gymnastics-integrated reading (or community service, sports, etc.) activity might also improve reading abilities through the same process. (Burger & Winner, 2000).

To ensure that students obtain and develop reading experience in all of their courses, art teachers must integrate reading strategies into their teaching. Reading about art in art classes will help pupils remember the concepts and vocabulary that the teacher orally teaches (Gravalin & Maki, 2013).

Students who can apply their information in new contexts will show increased reading comprehension since they can make connections with their personal lives, other books they have read, other media, and life events. Students who can relate to texts in many ways can better comprehend what they are reading (Gravalin & Maki, 2013).

Researchers have discovered five crucial functions for visuals in reading (Levie & Lentz, 1982; Levin et al., 1987).

- Reflection: The visuals repeat or greatly overlap the text's information.
- Organization: Visuals increase the cohesion of the text
- Visuals provide a reader with a greater concrete understanding.
- Transformation: Visuals draw attention to important textual information as well as recode it for easier recall form
- Decoration: Visuals are utilized in the text for their aesthetic appeal or to draw the reader's attention.

Levin et al. (1987) discovered in the meta-analysis of visuals' impacts that, with the exception of the ornamental function, all visual functions enhanced memory. These roles are transformation, interpretation, organization, and presentation in that order of importance (Gyselinck & Tardieu, 1999). However, the representational function (i.e., transformation, interpretation, and organization) overlaps the other three since images frequently retell the specifics of the text or the relationships between the information (Liu, 2004).

2.1.10.2. Visual-art Education & Motivation

According to numerous studies, visual art increases motivation and ESL learning (Meyer, 2005; Eisner, 2009; Hickman, 2010; Card, 2012). Visual arts could make learning environments where learners are more interested in asking inquiries, taking risks, and feeling comfortable in making

mistakes (O'Malley & Chamot, 1990). The use of visual arts in language instruction helps students' emotional reactions be evoked (Card, 2012), their affective filters be lowered (Card, 2012), and they are encouraged to engage in a subjective experience that may improve their motivation and attitude toward learning the target language (Eisner, 2009, as cited in Martello, 2017, p.2). Wooten (2008) asserts that the inspiration of students through art education is the beginning of a passion for education. The kids' capacity to maintain their interest was greatly influenced by art (Panzalan, 2018).

The inclusion of visual arts in language education links, influences, and improves the accomplishment of results of language learning and motivating advantages. Numerous researches have shown how effectively using the arts, especially visual literacy, can promote student motivation and ESL learning (Meyer, 2005; Eisner, 2009; Hickman, 2010; Card, 2012). Visuals are an essential part of learning a second language since they stimulate students' interests, enhance enquiring, and invite discussion and participation. According to Project Zero's director, David Perkins, "watching a work of art is a cognitive and emotional experience that inspires pupils to ponder, consider, and consider critically".

Students, by utilizing visual arts," can develop relationships between the image and their previous knowledge, personal understandings, and viewpoints on moral and societal concerns" (Card, 2012, p. 41). Integrating previous knowledge with new learning strengthens learners' cognitive capacities to fully understand and memorize the new topic, enhancing their motivation and language performance (Siegler & Alibali, 2005). When students are personally interested in the material they are expected to study, they learn more efficiently (Martello, 2017).

Employing visual arts in second language learning refers to the idea of "playing" around with the language, which is a significant issue in L2 learning. When students are given the opportunity

to express their opinions about what they see, they become more prepared to take risks and are less fearful of making errors, two of the most important qualities in L2 learning. (O'Malley & Chamot, 1990). The ability of students to play with words demonstrates a greater understanding of the language and indicates their linguistic skills and can be used as a proficiency test. (Baurain, 2010, p. 56). According to Ortuó (1994), even the most reserved pupils would risk grammatical errors when reflecting on such colorful visual signals when visual arts are included in the classroom. In fact, simply looking at a picture increases enjoyment opportunities, improves visual-spatial thinking, and even increases tolerance for others (McCarthy, 2001).

Art is a highly significant instrument for portraying a variety of students because each artist conveys distinct meanings through symbols, which may then be interpreted creatively and differently by each student (Shier, 1990). When art is used in second language classes, learners are able to recognize, compare, and be amazed by the cultural portrayal of the artist. Art also acts as a link between different languages and cultures (Martello, 2017).

The most crucial component of language learning is motivation. While a student's total motivation typically combines intrinsic and extrinsic motivation (Shana et al., 2013), Furthermore; it relies on a variety of contextual factors, including the learners' cultural background, language proficiency, and perspective on the target language. For a number of causes, students are encouraged to study another language. Integrative motivation (the desire to adapt to the target culture) and instrumental motivation are distinguished by Gardner (1985). (Academic or work-related achievements). The distinction between state-like (extrinsic motivation) and trait-like (intrinsic motivation) L2 motivating factors proposed by Csizér and Dornyei (2002) is also pretty similar. Students who are motivated by external or situational factors exhibit lower levels of motivation compared to students who have intrinsic motivational interests (Martello, 2017).

Emotion increases students' motivation because it improves their memory and cognitive abilities (Kensinger, 2008). Emotional words and emotion-laden words guarantee exposure to a wide range of vocabulary learning. The application of visual arts in education exposes students to emotive language experiences more frequently. The image, the student's own experiences, and their moral and societal concerns can all be connected by the students. All of these connections aid students in remembering new information, which improves their motivation and language skills (Siegler & Alibali, 2005).

2.1.10.3. Visual-art Education & Academic Achievements

The following research projects looked at how visual art affected academic success. Seidler (2023) looked at the visual arts' impact on at-risk pupils in one recent research study. During the data-gathering process, a variety of instruments were employed, including student reflections, attendance tracking programs, behavior monitoring programs, observation and interviews. It has been proven from the data obtained and conclusions that visual arts might significantly increase at-risk students' learning.

Ishiguro et al. (2023) examined both indirect and direct impacts of extracurricular music and artistic activities on the scores received in each art topic and overall academic performance. According to structural equation modeling, involvement in extracurricular visual arts and music activities was linked to changes in both the visual arts and music scores and has been positively related to results in overall academic performance between seventh and ninth grades.

Kuhn, Pepanyan, and Tallakson (2020) carried out a study associated with executive function (EF) abilities of at-risk third-grade pupils prior to and after the integration of an art program (Kuhn et al., 2020). Thus, during the period of the investigation, investigators worked with some third-

grade pupils who were identified as at risk. Furthermore, they incorporated several art projects within the everyday main syllabus to study how it affected their EF abilities. The obtained outcomes indicated a significant increase in EF abilities" were made because of integrating the artistic tasks.

Jin, Martin, Stephens, and Carrier (2020) carried out research, the aim of which was to use a Maker Bus to provide visual arts to the neighborhood's schools and community. To provide children the opportunity to create, researchers extensively rebuilt a bus that has been equipped with several art-making supplies. According to Jin, Martin, Stephens, and Carrier (2020), the main goal of the investigation was that kids utilize creativity and intelligence for designing or constructing things. The study's findings revealed that the Maker Bus gave kids many opportunities to acquire and create via the visual arts while utilizing several skills and materials.

According to Joseph's (2019) research, the arts foster academic achievements. Joseph (2019) investigated the extent to which the use of the arts enhances fourth-grade pupils' vocabulary learning within the language arts classroom. Joseph (2019, p. 166) stated that "in the state of Washington, visual arts are regarded as a portion of basic education for all students." Learners were able to make links between creativity and language via the utilization of interdisciplinary learning in the current research.

According to recent research by Schroth and Helfer (2020), regardless of their skills and ability or risk, each pupil must have the chance to participate in the arts-based program. A statement was made to the result that in the arts, meaning is communicated via the creation, improvement, and presentation of a piece of art. All children were given access to visual arts education as an outcome of the study, and they were given the same opportunity to create things and show their creativity.

Data was collected through the assessment of artworks and teacher interviews to ascertain how every student spent their time while participating in an art-based program. The findings showed that all kids had creativity, even at various levels. All of these demonstrate how students achieve academic success and present it by using and creating artwork (Schroth & Helfer, 2020).

The authors proposed expanding Krashen's (1982) vision to integrate all forms of multimedia and technology, building on his notion of the significance of language instructors and programs creating rich reading programs for continuous involvement with second-language print materials (Bailey & Fahad, 2021). However, the success of such programs depends on the teachers mediating the students' social identities and inspirations for continuing second language acquisition (Bailey & Fahad, 2021).

2.1.10.4. Research on Visual-Art Education implications for Reading comprehension

2.1.10.4.1. Past studies

Numerous studies show that the visual arts are an efficient way to making meaning from a text (Bustle, 2004; Chicola & Smith, 2005; Grant, Hutchinson, Hornsby, & Brooke, 2008; Miller & Hopper, 2010). Higher-level reading comprehension skills appear to benefit from using visual arts projects and activities. It proposes an alternative strategy that takes into account various learning preferences and encourages learners in critical thinking skills (Holdern, 2012).

The findings of a research carried out by Catterall (2002) confirmed that there is an association between drawing, visualization, "artistic reasoning," and "visual arts instruction," and organizing abilities in writing, text interpretation, reasoning, and reading preparation. According to Catterall's research, involving students in debates about images, details, the artist's intent, and personal opinions about a picture can help students to build a connection to details in literature, the author's

purpose, and how to support ideas or claims with indications. Experiences in the arts develop skills, relationships, interests, and motivations that frequently appear in other contexts (Mathieson, 2015).

Similar studies have found that education and involvement in the visual arts have a positive impact on students' passion for using their skills, talents, and interest in learning activities and their engagement in tasks.

2.1.10.4.2. Present studies

Qualitative research done by McCulloch (2019) indicated that it contributed to the arts-integration research specifically for general classroom elementary education teachers, utilizing a variety of art forms in instructing reading comprehension to English language learners. Thus, the study's aim was to examine what an English teacher in a general education classroom knew about integrating the arts. The results indicated that integrating the arts enhanced English language learners' capacities to create a necessary schema, learn important vocabulary, and pay attention to oral reading fluency to enhance text comprehension.

Gidoni & Rajuan (2018) used "drawing tasks" as an inventive method for pupils in the (EFL) class. A whole-class discussion, interviews, and anonymous feedback forms were used to elicit the opinions of fifth-graders about sketching techniques. The results showed that "drawing" improved students' "motivation" and "engagement in EFL sessions" and enhanced "comprehension" and "retention of content materials." According to the research findings, drawing exercises are particularly well suited to EFL learning classes for intellectual and emotional reasons. Teachers should emphasize the aim of sketching exercises in EFL classes and highlight the importance of students' displaying the learned content knowledge instead of concentrating on the aesthetic elements of artistic work. In order to introduce students to alternate teaching strategies for learning foreign languages, they can suggest introducing drawing tasks to ESL/EFL learners.

Theide and Wright et al. (2022) investigated the impact of drawings on the meta-comprehension precision of scientific texts for 5th-grade undergraduates. They received training on organizational drawings, which concentrated on comprehending the links explained in texts, or representative drawings that emphasized understanding details defined in texts. After that, they completed quizzes, read materials, and drew illustrations for them. Meta comprehension accuracy was higher for pupils trained to draw organized drawings than for pupils taught to draw representative drawings or those who were part of a control group and did not draw. Students who learned to sketch ordered paintings performed higher on comprehension exams than students in the control group.

Rooney (2020) investigated how drawing impacted third-grade learners' reading comprehension. The research was performed in two sections of the action research. First, pupils read and took a comprehension quiz. For stage two, pupils read and sketched an image to display what they recalled from the story, then they took a similar comprehension quiz as earlier but as it connected to the second story. The aim was that learners were able to have a better understanding after sketching, and they had better performance. Learners' scores for response correctness enhanced, and more importantly, grades for the deepness of reply on comprehension questions increased, all by means of an arts integration contribution to reading comprehension.

Guo, Zhaung, and Wright (2020) indicated in their study that there are specific circumstances where graphics have been demonstrated to have no impact on learners' general text understanding; nevertheless, the fact that convergent study reveals that qualified graphics can simplify the comprehension of a text by readers. The overall impact on reading comprehension was the first thing they examined. Then, they looked at interactions with learner characteristics, visual types,

and evaluation forms. The data showed that adding pictures had a moderate overall positive effect on pupils' understanding of reading, irrespective of grade level. In terms of visual graphic type, they found no noticeable difference between images, pictorial diagrams, and flow diagrams. Pictures only had a more significant impact on comprehension when compared to mixed graphics. On mixed-format assessments and open-ended comprehension tests, images differentially promoted pupils' comprehension compared to true and false assessments.

Janneke van de Pol et al. (2020) explored how to simplify students learning from texts by engaging in generative activities that made diagnostic cues more accessible and improved progress monitoring and regulation. He looked into generative activities that use drawing and mapping to turn text into visual representations (e.g., creating diagrams, concept maps, or drawings). This is highly suited for exploring cue diagnosis and cue application because it has been shown to increase monitoring and regulatory precision.

Becker (2020) carried out research and offered a literature-based, interdisciplinary teaching strategy for kindergarten through second-grade pupils with L1 using the Visual Arts in addition to identifying fundamental ideas of visual arts, arts integration, and universal design definitions. He also underlined the value of cooperation between teachers who work with kids. He reviewed research on the merits of teaching methodologies of art integration and literature-based approaches. He concluded that visual-based activities emphasize the strength of kids with language impairments, creating a setting that supports equity for all students.

Kica (2022) examined the implementation of the drawing task strategy in an English as a Foreign Language (EFL) classroom. Sixty randomly selected Albanian-speaking students participated in the study from both genders. The results presented here are part of an experimental research that

looked at the beneficial effects of employing the drawing task strategy for students' reading comprehension in EFL classes. The data were gathered through reading assessments. The results indicated that the drawing task strategy facilitates students' reading comprehension in EFL classes. The results confirmed that this creative and useful strategy in reading comprehension could assist learners while learning English as a second language.

Sari et al. (2022) conducted research to find out whether using the sketch-to-stretch strategy could assist in improving the student's reading comprehension skills. The researchers utilized a pre-experimental design with a single-group pretest and posttest design. The sample of this research was a young learners' class consisting of twenty-three students. In gathering the data, the researchers used a reading comprehension test, which was split into pretest and posttest. The findings indicated that the implementation of the sketch stretch strategy increased the reading comprehension competence of the students.

Masliza and Sulaiman (2021) carried out research to explore the functions of visualization in supporting young learners' reading comprehension based on the various aspects of the reading process. The study examined five functions of visualization based on the incorporation of eight aspects of the reading process in visualization applications. The research filled in the gap in the literature by focusing on which reading process aspects are used in different kinds of visualization. In particular, the significance of this paper was to help teachers in looking to examine the visualization functions and how they affect young learners' reading comprehension. The results indicated that visualization was able to solve the young learner's reading difficulties detected at the word level, sentence level, and text level. Visualization affects reading comprehension better from the perspectives of its functions connected to the aspects of the reading process.

Sukma, Rozimela and Rtmanida (2019) carried out an experimental study and examined the utility of making drawings through task-based language education's application for promoting reading comprehension. Moreover, the research investigated the influence of using diverse task types on high school pupils' reading comprehension abilities, including drawing tasks. The result indicated that the drawing task was a very effective task in enhancing the pupils' average test scores. Furthermore, the observation's findings indicated that students found sketching very engaging and attractive. It inspired pupils to read texts and comprehend them in more authentic and creative ways. It resulted in students' more excitement and enthusiasm through the reading process.

Hasby and Iswara (2019) carried out research aiming to determine "The Effectiveness of "Memories and Draw Towards Students" Motivation in Reading Comprehension." According to the results "Memories and Draw" strategy was effective in raising students' motivation in reading comprehension, particularly in reading descriptive text. Therefore, it is suggested that educators utilize the "Memories and Draw" technique to enhance their learners' motivation for reading comprehension.

Tucker (2017) concentrated on arts-based education's impacts on the students' literacy achievements. The study's objective was to identify arts-based integrations' impact on fifth-grade pupils who registered in the South Carolina School for Science, engineering, technology, Art and Mathematics. The fifth-grade students' group, made up of ten pupils, received arts-based integration with a focus on literacy skills. The researcher met with the students to afford them arts-based literacy treatments three times a week. The pre-and post-test of literacy skills, along with a questionnaire evaluating students' attitudes towards the reading and literacy program, were used to collect data. According to the findings, evaluation ratings improved overall for 80% of the

participating students who received arts-based instruction. The participant-researcher developed an action design and presented insights about arts-based curricular incorporation with the management and teaching team based on the research's findings.

Lin et al. (2017) carried out research in which sixty-three undergraduate students used the instructional approach at three levels (repeated reading, learner-generated drawings, and imagination) as the independent variable. The findings indicated that when learners' prior knowledge was restricted, learner-generated drawings improved their understanding more than repeated reading. Additionally, students who were using their imaginations spent far more time reading the science text and focused on it more frequently than those in repeated reading circumstances when they were asked to read scientific text following the art intervention.

Cook (2016) looked at how graphic novels are used in education. The results of a study investigating the impact of graphical novels on reading comprehension in adolescents in high school are presented in this article. The study's factorial analysis of variance contained three independent variables: text type, grade level, and gender. The dependent variable was made to be a reading comprehension test. Findings revealed significant effects for each factor.

Mathieson (2015) undertook action research to understand how adding visual arts activities to reading courses might affect students' literacy skills. Participants were eighth- to ninth-graders from a suburban elementary school, both boys and girls. Comprehension tests, teacher-student interactions, and information collected from the students' artworks were all used to collect the data. As a result of this intervention, the children's literacy abilities showed significant improvement. The study also indicated that for many students, using visual art after reading was helpful in terms of understanding. When the artwork was incorporated, students showed a better sense of

involvement and delight in reading. By using the techniques outlined in this study, educators can support students in enhancing their understanding and retention skills.

Jones (2014) used portraits as a visual art instrument to foster students' reading abilities in ESL classes in her research. The instructor advises the students to read a painting with the same focus as a text written in English. They are encouraged to pay close attention to specifics and draw inferences from what they see in the painting as signs (Jones, 2014). She claimed that arts scaffolding is a really useful technique, particularly when working with ESL pupils (Jones, 2014). Gravalin & Maki (2013) conducted research to investigate the impact of visual arts on third-grade kids' comprehension abilities. The research implemented visual art with the attendance of an art teacher, in a third-grade classroom, for eight weeks. They examined their collected data to determine whether a visual arts project might affect quiz test comprehension scores; they also looked at the information gathered from the attitude surveys administered to these two groups as pre and post-test. The study results showed that doing visual arts assignments before taking the test a little bit improved comprehension score.

According to Zemberova (2014), practicing the arts in the EFL classroom helps students improve their literacy and language abilities. The kids who practiced in the study "performed higher in six categories of "literacy" and "critical thinking abilities," including complete description, assumptions, and reasoning," according to the findings of the Guggenheim program "learning via art." Additional research from the program, as mentioned earlier, revealed that learning about art enhances reading and oral communication abilities and positively influences a kid's capacity to learn other communication skills and academic topics, including reading, writing, and speaking

Sam and Rajan (2013) investigated how to use "graphic organizers" to improve middle school ESL students' "reading comprehension" abilities. The obtained results indicated that for reading questions, employing graphic organizers is beneficial. Reading questions such as (1) recognizing the main idea, (2) identifying the supporting details, (3) dealing with vocabulary, (4) fact and view (5) making inferences. Using graphic organizers through reading comprehension lessons indirectly encourages the readers to make their own graphic organizers for the text they read and understand, increasing students' creativity.

Holdern (2012) conducted a research study in which "visual arts projects" were utilized to evaluate "upper-level reading comprehension skills." He suggested using visual skills as a replacement that works well with diverse learning styles and involve learners in critical thinking skill. Twenty-one juniors in high school participated in this case study and created visual artworks to indicate their artistic talent to analyze and manipulate reading-related details, resolve interpreting issues, interpret literary elements using metaphor and symbols, and form personal connections with the reading's content. Students showed an increase in using multiple critical thinking abilities when relating what they read to art, according to observing and evaluating how students behave and remark during the research. Additionally, learners who had the most complicated understanding of the text obtained higher results (Holdern, 2012).

Masoumeh Farrokhi and Masoud Hashemi (2012) emphasized the value of art as an effective teaching and learning instrument. They elaborated on how art can challenge students to reach high degrees of analysis and open up innovative ways to explore themselves and their environments and communicate and comprehend complex ideas and in-depth understanding when combined with reading, writing, speaking, and listening.

Leopold & Leutner's (2012) aim was to compare instructions to make drawings with two text-focused strategies: 1) main concept selection and 2) summarization, to see if these strategies may assist students in learning from a chemistry science text. Science text comprehension was the primary dependent variable, and it was assessed using a transfer test and a multiple-select exam. According to the findings of the two tests, the instructions for the sketching method showed positive impacts, while the instructions for the text-focused, non-interactive technique had negative effects. These findings demonstrate the benefits of drawing activities in promoting comprehension of science texts which are compatible with the mental model approach to comprehension.

In a study by Hardiman et al. (2014), "arts integration" was suggested as a highly effective method to improve "retention of content." Activities that are likely to benefit long-term memory are naturally included in arts integration. Hardiman (2014) suggested teachers incorporate the arts into their classrooms. It may be beneficial to use images with artistic content to provide information in a pictorial form. According to research on the "image superiority effect," it is unprofessional for a teacher to teach reading comprehension without using the aesthetic pictorial form.

Defeyter, Russo, and McPartlin (2009) conducted a research and found that the picture superiority effect gradually develops until adulthood and that it is not apparent in very young children (ages seven or younger). This finding may provide a basis for using and implementing "visual arts" for adult "reading comprehension texts." When pictures can convey information as effectively and meaningfully as words, the benefits of picture superiority are evident, and utilizing pictures is likely to increase retention, at least for older children and adults. In most cases, pictures can be used to supplement verbal information (Hardiman et al., 2014, p.94).

Boling & et al. (2008) examined the impact of personalized language arts as part of one's reading strategy on the comprehension scores attained by challenged readers from the oral narrative, silent expository, and silent narrative passages throughout three levels: a) below grade, b) on-grade, and c) above grade levels, are The study's results powerfully supported and provided evidence that using personalized "language arts integration" is as an efficient strategy in reading instruction for improving "reading comprehension" abilities of challenge readers.

A multitude of research has been carried out to examine the impact of the implementation of art education, specifically using visual-art tasks for teaching reading comprehension in the ESL context, but there is a gap in implimenting visual art tasks for improving reading comprehension skills of IELTS candidates. Manny research has been conducted to investigate the effect of the implementation of art education and, in particular, visual art for reading comprehension in the ESL context, but there is a gap in employing visual art education for improving the reading comprehension ability of ESL learners in important proficiency tests like the IELTS exam that constitutes the aim of the present research. The study is expected to integrate art education in the IELTS reading preparation classroom as an efficient strategy, which may increase deep understanding of IELTS Reading texts and vocabulary learning. Also, it may be a beneficial strategy for IELTS candidates to experience less anxiety and pressure during the IELTS exam and learn in an enjoyable and stimulating way with higher motivation.

2.2. Multiple Intelligences Approach

2.2.1. Introduction

The multiple intelligences (MI) approach was adopted by a wide range of intellectuals, educators and scholars worldwide. The MI theory proposed a pluralistic view of the mind that acknowledged many cognitive facets and recognized that individuals had different cognitive strengths and styles. It offers the most accurate description of intelligence in the real world, and it continues to be supportive in articulating and organization of human abilities.

Howard Gardner's Theory of Multiple Intelligences has been an effective instrument for teaching children with a range of aptitudes. Almost any intelligence can be linked to an art lesson in a school where art is taught, resulting in better comprehension, enjoyment, and appreciation for the arts. Knowing that every learner has intelligence and that by leveraging each intelligence, more learners are expected to succeed in an art school helps the teacher's viewpoint on student learning. (Foster,2013).

Employing MI theory offers, it is claimed, teachers to engage learners' various intelligences in order to meet the needs of different individuals. Thinking of learners who have different talents and learning styles opens a wide view regarding teaching and learning. MI settings are student-centered in which students act as agents and teachers act as observers and consultants. MI setting offers learners a variety of tasks, projects and ideas to realize their abilities and find their interests. It offers teachers a multitude of ways for instruction and assessment. This motivates a variety of reading researchers to examine the MI role in reading comprehension.

2.2.2. Theory of Multiple Intelligences

Ideas of mental abilities and intelligence first began in the late eighteenth century. Over the past years, several more researchers documented ideas on brain functions and cognitive abilities of individuals, including Spearman (1927), who introduced the concept of (g) or general intelligence and Binet (1905), who devised the first intelligence test named (IQ). The general intelligence (g) Spearman (1927) theory, which psychologists had long accepted, was challenged by Gardner (1983). The idea of (g) with a unitary view of intelligence that uses linguistic and logical-mathematical intelligence as measures of intellect, according to Gardner (1983), was ineffective. While intelligence can be assessed with an IQ test, it is not simply one thing that is inherited.

There exist a multitude of intelligences, quite independent of each other and each of intelligences has its own strengths and constraints. Individuals will differ in their intelligence profiles can be developed under appropriate training and encouragement during their careers. Gardner (2005a) provided a description of the important aspects of MI theory that construct the basis of this approach. Gardner proposed that all people from all cultures possess eight or nine intelligences and have core abilities in each intelligence (Gardner, 2005). Even twins with identical features do not have an exact intelligence profile with another person; each person has a different set of intellectual compositions (Gardner, 2005). According to Gardner (2005), being intelligent does not guarantee that you will act morally or rationally. Intelligences are similar to computers and can be used for different purposes. Even if a computer is perfectly functional, it can be used unwisely. One may utilize intelligence for moral or immoral purposes (Gardner, 2005).

Intelligences are quite independent, but they do not work in isolation, rather they usually work in combination and complicated ways (Armstrong, 2009); The majority of people can raise

each intellect to an appropriate proficiency level with the right encouraging, enriching, and training, and almost every person has the potential to foster all intelligence to a rationally and satisfactory standard of performance (Armstrong, 2009). Within each category, there are different ways to be intelligent. To be considered intelligent in a particular field, one does not necessarily need to possess a certain set of qualities. Therefore, a highly linguistic person may be able to tell a great narrative and use a wide oral vocabulary despite being unable to read. MI hypothesis emphasizes the great diversity of ways that people express their talents both within and between multiple intelligences (Armstrong, 2000).

2.2.3 Intelligence

2.2.3.1. Intelligence Defined

The multiple intelligences (MI) approach is a psychological approach that has presented an accurate description of intelligence in the real world. According to Gardner (1983), a group of aptitudes, talents, or mental abilities, which he refers to as "intelligences," is a better way to explain human cognitive competency. Gardner considers intelligence in the cultural context and defines it as "a bio-psychological capacity for information processing to resolve issues or make things which are appreciated in one and even more cultural contexts" (Gardner, 1983, p. 81).

3.2.3.2. Multiple intelligences

The multiple intelligences definitions offered by Gardner in 1999 are described here as referred to in Armstrong (2009, p.6):

1. Linguistic Intelligence: The capability for comprehending and using language efficiently, both written (as a poet, editor, and playwright, as well as a journalist) and spoken (as a story teller, speaker, lecturer, editor or politician). The capability to use a language's grammar, phonology,

semantics, as well as pragmatic features, or the functional uses of a language, are all included. It also includes awareness of word meanings and the many ways in which language is used. Some examples of these uses are rhetoric, which is the use of language to persuade listeners to choose a particular path of action, mnemonics, which is the language usage to recall data description, which is the language utilization to instruct, as well as meta-language (utilizing language for speaking about itself).

2. Logical-mathematical Intelligence: The ability to use abstract patterns, numbers, and inductive and deductive reasoning. The ability to reason logically (e.g., as a researcher, program writer, or mathematician) and utilize numbers successfully (as a mathematician, accountant or statistician). Such intellect comprises an awareness of logical relationships, assertions, propositions (such as if-then statements and cause-and-effect statements), functions, and other related abstractions. calculation, categorization, and hypothesis testing are examples of the types of processes utilized by logical-mathematical intelligence.

3. Spatial Intelligence: The capacity to create mental image of the world and manipulate them; the capacity to perceive the big world of (e.g., an aviator or a navigator) or the smaller world of (e.g., a chess player or a surgeon) and to act upon such attitudes (e.g., as an architect, designer, artist, as well as creator of interior spaces) (Gardner, 2005, p. 8). This intelligence requires an awareness of shape, color, space and line and how these elements interact. It entails having the ability to visualize, represent spatial or visual information graphically and successfully place oneself inside a spatial matrix.

4. Bodily-Kinesthetic Intelligence: the capability to create items or resolve issues utilizing all of one's body or certain body parts (Gardner, 2005, p. 8). It entails skill in utilizing individual's entire body to convey thoughts and emotions (as in acting, miming, sports, or dancing) and making or

altering things with one's hands (as a sculpture, mechanic, craftsman as well as a medical practitioner). Such intelligence comprises particular bodily skills including balance, coordination, power, flexibility, and pace.

5. Musical Intelligence: The capacity of perception (e.g., as a music fan), discrimination (e.g., as a music critic), transformation (e.g., as composer), and expression (e.g., as a performer) musical forms. This intelligence involves understanding the rhythm, intonation, and tone color and melody of a music. Music may be interpreted formally, bottom-up (analytical, technical), figuratively or top-down (global, intuitive), or both.

6. Intrapersonal intelligence: comprises the capacity to comprehend oneself, includes one's strengths, inadequacies, worries, and desires (as cited in Gardner, 2005, p. 8); awareness of one's internal feelings, intents, and motivations; and the aptitude to self-evidence, self-understanding, and self-confidence.

7. Interpersonal Intelligence: The capacity to understand and discriminate between people's motives, feelings, intentions, and moods. It entails understanding other people, including how to communicate with them, inspire them, know their personalities, etc. (as cited in Gardner, 2005, p.8). This might entail understanding gestures, speech, and facial expressions, the ability to make distinctions between different social cues, and being able to provide answers and feedback efficiently to these cues pragmatically (e.g., convince a group of persons to follow a specific course of action).

Gardner (2005) then introduced two more intelligences as follows:

8. Naturalistic Intelligence: Ability in the recognition and classification of the numerous kinds of animals and plants that could be discovered in one's environment. This intelligence involves being aware of natural events (cloud formation and mountain) and, in the case of an urban setting, being

able to distinguish between nonliving things like sneakers and cars, among others (Armstrong, 2009, p.7).

9. Existential intelligence: or "big questions' intelligence" When children inquire about the universe's size and adults contemplate death, love, battle, and the upcoming of the planet, they reflect on existential concerns by asking questions such as "Why are we here?"; "What is my role in the world?"; "What is my position in my family, school and society?" (Gardner, 2005, p. 9). This intelligence looks for links between real-world identifications and applications of new knowledge (McKenzie, 2009, p.12).

Gardner (2005) argued the most about the humor and moral intelligence candidates, except for existential/spiritual intelligence. The ability to make moral decisions is a fundamental aspect of being human, moral decisions people make also strongly depend on the culture of the society they are raised in. People do not share fundamental moral principles and values. The same holds true for humor. Gardner considers both morality and humor as "culture-dependent" features and leaves morality and humor out of his list of basic human intellectual capacities (Gardner, 2005, p. 36).

2.2.4. Attraction of MI Approach

The attraction of MI is first due to its great attention to morality and humanistic values in the teaching and learning process. Gardner (1983) presented a humanistic approach to man and his life. His desire was not just to describe the world but to create conditions to change the world to make it a better place to live. Gardner (1999) argued that understanding the world is the ultimate goal of learning, and "knowing who we are and what we can do" is a crucial component of that knowledge (p.1).MI approach inspired humans to think critically, understand the world, solve problems and be constructive in real life.

Gardner (1999) stated: “I want my children to realize the world not only for the reason the world is fascinating and the human mind is inquisitive but there are additional reasons why. I want them to comprehend it so that they may be prepared to turn it into a better place to live. Morality and knowledge are not the same thing; we must realize this if we want to learn from past mistakes and keep moving forward in a positive way. Knowing who we are and what we can do is a crucial component of that knowledge. In the end, we must create our understanding for our own benefit. The actions we take as humans in the world, and we may influence for good or for bad, are the ones that really matter”. (Gardner, 1999, p. 180-181).

Second, MI as a modern model of instruction has a broad vision for education and training. The beauty of MI is that there is no single path to the implementation of MI theory; instead, teachers offer different pathways for students to learn (Hoerr, 2000). Teachers offer learners a variety of tasks, projects and ideas and provide opportunities for learners to choose and recognize their intelligence and their potential. Teachers have the freedom to implement MI in a multitude of ways for instruction and assessment.

The third feature of MI is that it has changed the role of teachers. In traditional schools, teachers typically rely on textbooks and other required materials in the curriculum. But, in an MI setting teacher's role is to be an observer, researcher, collaborative, consultant and problem solver. MI settings allow teachers to work with children and bring their creativity in teaching, to take methods and strategies to engage most learners' intelligences.

2.2.5. Implication of MI Theory in Education

The most important point to comprehend, according to Gardner (1983), is that MI theory is not a set formula for instruction. It deals with how the mind functions. MI theory is a psychological theory, but educators, rather than psychologists, found the theory of most interest and began to revise their educational practices under the light of MI theory.

Today, one of the biggest issues facing teachers is creating a curriculum that effectively meets the needs of various student groups. Gardner (1993) contends that the concept of "uniform schools," where kids are learning the same content in the same way and evaluated in an equally similar way, is fundamentally unfair because it rewards students who have shown the powerful linguistic and logical-mathematical intelligences while making school difficult for students who have diverse intellectual profiles.

Gardner (1993) offered that schools should provide education with curricula that match the requirements of each kid rather than relying on a standard curriculum. "Exams and test correlations should be abandoned in favor of using more naturalistic resources of knowledge regarding the way individuals worldwide acquire the abilities needed for solving problems and discover better ways of living" (Gardner, 1993, p. 8). Actually, the greater objective of education is to prepare kids to make a successful life outside of the classroom, that is, giving them the information and skills, they need to solve issues and improve their lives.

The majority of MI-based programs, according to Veins (2006, p. 15), have been started to achieve three objectives:

- to offer students a variety of opportunities across multiple intelligences options (exploration)
- to provide students with intense chances in areas of strength (talent development)
- to provide tailored or individualized instruction by concentrating the curriculum on developing pupils' intellectual abilities (using strengths)

The following approaches and exercises were created to achieve these objectives. These methods stem from comprehending the MI theory, its implications for instruction, and a desire to develop students' multiple intelligence. These methods are:

- offering a range of curricular choices.

- Offering a variety of choices between "entry points" or activities.
- Expansion of instructional strategies and media based on the many intelligences.
- Informal evaluation of students' multiple intelligences through the design of educational activities.
- Increasing the number of assessment alternatives to enable students to demonstrate their learning in their areas of strength.

The research findings conducted in the classroom support the notion that MI theory is a promising theoretical framework that can promote students' learning. The results of research by Campbell (1999) in the United States over the course of a year indicated that:

- Employing MI pedagogy in schools associated with remarkable results for both students and policymakers in solving problems in school
- Students gained more independence, self-direction, and responsibility
- All students' cooperative learning abilities improved.
- All students developed and applied new skills
- Student's academic achievement improved
- Discipline problems were significantly reduced

According to Campbell (1999), there are two factors in the program's academic and behavioral success. First, every student has the chance to focus on, specialize and achieve success in at least one subject. Second, each learner studies the subject matter in a variety of ways; therefore, the chances that each student will comprehend and remember the material are increased. (Campbell, 1996, p. 5). A study was carried out by Kallenbach and Viens (2002) across various adult literacy contexts. The main results of the study were as follows:

- MI applications result in high levels of adult learner engagement
- Choice-based activities increased Learners' confidence in their ability to learn

- It is crucial to link MI reflection exercises to wider general learning objectives

Mbuva (2003) investigated the results of using the MI theory in a teaching and learning setting. He stated that MI theory is a useful teaching and learning instrument at all levels. Mbuva studied various multiple intelligences, provided a definition of MI, and described the evolution of MI throughout history. He added that educators should consider each student's culture, language, and cognitive abilities (Razmjoo, 2008).

Recent findings from research support the use of MI theory in education as:

- MI pedagogy places a strong emphasis on the learning process in order to produce desired results and encourages careful consideration of training that is provided in a range of different modalities.
- It generates a broad range of experiences across disciplines and grade levels and promotes the development of tactics outside the trainer's fortes and interest. It promotes genuine, real-world experiences that foster deep understanding.
- It matches well with the numerous training, teaching, and learning technologies and support various kinds of formative and summative evaluation, and creates a context for continuous professional progress after the advancing training is settled (Mckenzie, 2009).

2.2.5. Implication of Multiple Intelligences Theory in Art-Education

Gardner (1990) claimed that the arts engage emotions, that they elicit a sense of magic and mystery, or have a religious or spiritual component. In fact, according to this perspective, emotions work cognitively to help the person to make specific distinctions, identify affinities, and create expectations and tensions that are later settled. However, human artistry is regarded as a mental activity that includes the alteration of a range of symbols and symbol systems. A few essential artistic principles must also be mastered by those who desire to participate fully in the artistic realm. People must learn to interpret or decode to "read" the different symbolic devices in their

society if they want to engage in meaningful creative perception. People must understand how to use or "write with" the many symbolic forms in their culture if they want to participate in artistic creativity. Just as it is unrealistic to imagine that people, in the absence of support, learn to read and write in their natural languages, so it appears rational to accept that people can take advantage of support in learning to "read" and "write" in the various languages of the arts. In light of this diverse conception of intelligence, the inquiry of whether there is a distinct "artistic intelligence" arises. According to Gardner's analysis, there is not. Instead, each of these categories of intelligence can be applied to the creation of art by arranging the symbols that correspond to each form of knowledge in an aesthetic way. For instance, in art lessons, language intelligence might be aesthetically applied. Spatial intelligence can be used by sculptors or bodily-kinesthetic intelligence can be employed by dancers and mimes in the same way. Musical intelligence may be applied artistically in the same way that logical-mathematical can. All combinations of multiple intelligences provided by the Multiple Intelligences' theory can be incorporated into the course for all students who attended the art class to profit as much as possible from the training (Erkan & Uster, 2012).

According to Gardner (1990) human intelligences have been cultivated in one of two ways over the course of learning. On the one hand, from an early age, people have engaged in activities that engage and direct their multiple intelligences. This process happens in traditional "apprentices" and "informal academic" activities that incorporate monitoring, displaying, and training. Gardner suggests applying "apprenticeships" to develop multiple intelligences that call for greater active engagement, including spatial intelligence. The emphasis on knowledge application and working in real contexts is a key component of the experiential learning approach. Gardner's theory emphasizes the value of multiple teaching approaches while advising educators to consider various

delivery methods. According to MI theory, professors should consider various strategies that draw on different intelligences. Human multiple intelligences, however, have also been trained in more "formal educational contexts." In these courses, students read textbooks and attend lectures, which is required to listen and read and comprehend the materials (Erkan & Uster, 2012).

Gardner (1993) stated few fields of knowledge had the difference between these two forms been more prominent than the study of art instruction. Gardner (1993) argued a person's understanding of the arts gradually develops because of his relationship with other artists and his broader perceptions of the physical and social world. Any attempts to teach someone instructively means to have a higher level of comprehension are doomed to fail. One can perhaps induce the imitating of an answer demonstrative of a higher level, but such a reply will evidence fragile once the specific conditions of the training have been deleted. If one wishes to advance those who are more knowledgeable than she is while also giving her plenty of chances to consider her own developing expertise in the field. This may sound like a formula for teaching, but it more closely resembles the developmental stage that a connoisseur actually goes through during her training. In terms of how the student conceptualizes and reconceives the artistic realm, one comes across a domain that appears to be "development" in a sense initially characterized by Piaget.

Students have acquired much about artwork through apprenticeships for hundreds of years. They observe expert artists at work and are progressively attracted to these artistic tasks. However, a second front in the study of the arts has emerged in recent years. More educational understanding has become more important in academic settings with the development of fields like aesthetics, semiotics, art history, art criticism and other related ones. Gardner (1993) explained this knowledge is generally learned through conventional educational methods, such as lectures,

reading, and writing, rather than through apprenticeship. It is thought that students need to be exposed to and familiarized with the various modes of thinking displayed.

Gardner (1993) asserted that in order to accomplish that, the following issues require attention:

1. Exercises in perception, history, criticism, and other creative activities should be closely associated with the student's personal experiences and outputs. In other words, rather than being introduced to art in a foreign context, students should meet artworks concerning the specific topics they are working on.
2. Art-integrated curricula are required to be presented with a deep understanding of how to think creatively in an artistic way. Instruction in the musical arts must happen by and through the judgments of a person who can “think visually or spatially.”
3. Whenever possible, artistic education should be centered on meaningful tasks that are completed over time and provide opportunities for reflection, argument, and feedback. Such initiatives are expected to engage learners, inspire them to learn, help them develop their skills, and have a long-lasting impact on their proficiency and comprehension.
4. Artistic learning is not about only mastering a particular set of abilities or ideas. Arts are deeply personal areas where students confront their own emotions and the feelings of other people in the intensely intimate realm of the arts. Learners require instructional tools that enable this kind of exploration. They must understand the value of introspection.
5. Directly instructing aesthetic taste and value judgment is generally useless and detrimental. But it's important for learners to understand that arts are permeated by issues of taste and value that are significant to every individual who is seriously engaging in the arts.
6. Studying all forms of art would be ideal for all students, but this is not a practical choice. Simply said, there are too many topics and multiple intelligences. Therefore, all the

students should be exposed to some type of art depending on the intended goal of the lesson or student group engagement.

2.2.6. Multiple intelligences & Art-Education projects

Multiple intelligences theory encourages integrating art and artistic activities into lessons and curriculum in the classroom. Many projects like "Project Zero," "Arts Propel," and "Project Spectrum" have been done to indicate the impact of using arts in education in all grades and levels. These projects will be explained in details in the following sections.

In order to investigate how children and adults learn in and through the arts, the philosopher Nelson Goodman (1967) gathered an interdisciplinary team of academics and instructors at the Harvard Graduate School of Education. As a result, "Project Zero" was created. Numerous people identify "project Zero" through the theory of Multiple intelligences or Teaching for Understanding framework (Project Zero, 2010).

2.2.6.1. Project Zero

In order to investigate how children and adults learn in and through the arts, philosopher Nelson Goodman organized a multidisciplinary group of academics and educators at the Harvard Graduate School of Education in 1967. As a result of Goodman's belief that there was a lack of verifiable knowledge on the subject, "Project Zero" was created. It served as a creative beginning point. They have continued to research learning and the arts throughout the superseding decades, and their work has extended to include investigations into the nature of intelligence, understanding, thinking, creativity, and other crucial facets of human learning. They have collaborated with numerous schools, museums, and other partners over the years. They have also worked with thousands of teachers. They have published over 90 books, hundreds of articles, and reports.

The most well-known researchers on Project Zero are Howard Gardner and David Perkins, who have been involved in it since 1967. Project Zero's primary goal was to increase students' capacity for learning, in-depth comprehension, critical thinking, and creativity by incorporating creative tasks and activities into all learning situations on an individual and group level and also humanistic and ethical ideals (Hyland, 2018).

Thus, the focus of project zero research can be summarized under nine headings (Hyland, 2018):

- Arts
- Creativity
- Intelligence
- Understanding and Assessment
- World-minded Education
- Character and Ethics
- Civic Agency

Project Zero consisted of many art-integrated projects like “Artful Thinking”, “Studio Thinking” or “Artful Learning” project, “Muse” Project, Project “Co Art” and Project “Spectrum” (Hyland, 2018).

Some of the important zero project Art- integrated projects are described as follows:

- Artful Thinking Project
- Studio Thinking Project
- Arts Propel Project

Goodman (1967) disputed the view that linguistic and logical systems of symbols predominate over other expressive and communication systems. Alternatively, relying on previous efforts by

Pierce (1940), Cassirer (1953), and Langer (1942), Goodman (1976) created a classification of the primary symbol systems employed by humans. He talked about the different symbol systems that are particularly important in the arts, including musical, poetry, nonverbal, and visual graphic symbol systems, as well as the modes of symbolization that they reflect (e.g., numerous meanings, metaphors, and representations). Goodman (1976) immediately attracted academics who were interested in the mental and instructive features of the "theory of symbols," despite the fact that his work was essentially philosophical in nature (Gardner, 1989).

During the project's initial years, a significant portion of the activity comprised multidisciplinary discussion and examination of important artistic concepts and procedures. The perspective used was uncompromisingly "cognitive." That is to say, Creative tasks are acknowledged as opportunities for intellectual activity, some of which are shared with other interests (such as paying attention to detail) and others of which are particular moments to the arts, regardless of what else they may be (e.g., being sensitive to compositional patterns). Anyone who wants to participate in artistic commerce turns out to be proficient in "reading" and "writing" utilizing the sign systems included in the arts. A person who is artistically inclined can distinguish between several musical genres or recognize the allegoric elements in a poem or book. A creative "writer" can use abstract shapes and colors to imply elegiac or triumphal moods or change musical expressions to make the impression of changing seasons or emotional states (Gardner, 1989).

2.2.6.1.1. Artful Thinking: Make Thinking Visible

“Building Connections” was a program that Traverse City Area Public Schools (TCAPS) in Michigan created in October 2003. Incorporating the arts into the primary school curriculum was one of the main aims of the program in order to improve reading, writing, and academic

achievement in general. In order to accomplish this, TCAPS invited Project Zero to build an arts-integration program that enables children to acquire more complex thinking and learning skills.

Project Zero proposed to create The Artful Thinking Program, a curriculum that used by traditional classroom teachers and artists, a curriculum that makes use of the arts to encourage students to make deep learning and to think critically. The primary goals of the “Artful Thinking” project were to create a model strategy for incorporating art into regular classroom instruction and to support instructors in regularly utilize musical and visual arts into their curricula to advance students' deep understanding and learning (Tishman & Palmer, 2006).

"Artful Thinking" instructs students in critical thinking using the power of art. The first program's objective was to assist teachers in creating meaningful connections between art and other topics for learners, and the second was to help students to use art as an instrument to foster their thinking outlooks. It was created to be used in the traditional curriculum in all grades and disciplines. (Tishman & Palmer, 2006).

Most educators say it is crucial to teach students how to think. In the past, initiatives to teach thinking have focused on teaching reasoning, problem-solving, and other related abilities. Thinking abilities are certainly critical. However, merely teaching skills is insufficient if we want students to apply them regularly, in different contexts, and in new ways.

Research conducted at Project Zero has demonstrated the importance of motivation, values, cultural environment, and opportunity awareness in developing the intellectual habits and dispositions that distinguish great thinkers. "Artful thinking." focuses on the six dispositions of thinking that are particularly powerful for discovering artworks and complicated artifacts, and other themes. In the picture of the Artful Thinking Palette, the six outlooks are depicted

A main element of “Artful Thinking” is to make students' thinking visible by capturing their developing thinking patterns as they engage in thinking routines. Getting thought visible in the classroom gives learners clear examples of what the process of thinking looks like and demonstrates the importance of their participation.

“Artful Thinking” project emphasizes on a collection of six thinking dispositions that are especially effective for examining artistic creations and other intricate curriculum subjects They are: asking questions and doing research, observing and describing, thinking, considering different points of view, contrasting and linking, and identifying complexity. Two factors are the reasons for selection of these dispositions.

The first is that all six dispositions represent ways of thinking that are effective for discovering and appreciating artistic works. The second is that each of the six represents a strategy for thinking that helps people in understanding many disciplines.

According to the program's results, students who have participated in the “Artful Thinking” program notice more invitations to make attentive observations, explore points of view, examine complexity, and reason thoughtfully. If increasing students' awareness of thinking in situations is one of the objectives of the “Artful Thinking” program, it is well accomplished.

The outcome of the “Artful Thinking” Project, regarding the teacher’s points of view, was remarkable as the biggest change happens in the area of curricular links. Nearly two-thirds of the instructors (62%) strongly believed art was now meaningfully and vitally connected to the curriculum. Additionally, many teachers (56%) expressed that discovering and discussing artworks with pupils fostered critical thinking skills and enhanced their deep comprehension of curriculum topics. Additionally, (18%) of teachers believed that kids find art very exciting and fascinating and clearly stated that it increased student involvement (Tishman & Palmer, 2006).

The biggest change in teachers' views on art appears to be away from the idea that a piece of art can only have one interpretation, which is typically displayed as the artist's intention or the opinion of an expert toward understanding a piece of art, as affording a variety of valid interpretations from a variety of viewpoints, including those created by teachers and their students.

Regarding teachers' views on art and the curriculum, instructors agreed that art can offer great chances for learning. They also affirmed that teachers consider art not just as a motivating activity but also as an essential classroom activity in and of itself (Tishman & Palmer, 2006).

According to Tishman & Palmer (2006), the students, at the end of the Artful project, had changed their views about art and believed that

1. Art invites investigation because it has intricacy, narrative, and depth.
2. There is art in numerous locations and times, and it has various forms.
3. Art is lovely and enjoyable.
4. There are numerous ways to understand and interpret works of art.

Thinking about how students changed their perceptions of art over time is interesting. Students changed their ideas from understanding art as paintings as monolithic works with only "one message" to understanding art as involving various forms and meanings. Teachers and students seem to be on the same road as they recognize the various interpretations of artistic works (Tishman & Palmer, 2006).

2.2.6.1.2. Studio Thinking: Making Learning Visible: Teaching and learning through arts

Making Learning Visible (MLV) is based on a cooperative study done by Project Zero researchers with educators from Massachusetts and Ohio, teachers from Urban Kindergarten in Italy, and teachers from preschool through high school.

Making Learning Visible main objective was to make and maintain strong learning cultures that support both individual and group learning in classrooms and throughout schools. People frequently assume that it is a project about documentation when they first encounter it because it is the most tangible component of the (MLV) work that people can see. Then, after spending more time with the concepts, they see it as a group learning project. Ultimately, they perceive (MLV) as an initiative that deals with culture, morals, and democracy. Learning in groups enables us to develop learning strategies that support the kind of person we want to be and the world we like to make, in addition to helping us to study materials. The ability to express our opinions and listen to those of others, to consider different points of view, to seek connections, to revise our beliefs and to resolve disagreements are all skills developed through group learning and are essential in exchange for participating in a democratic society. Documentation is an essential tool for comprehending, facilitating group learning and sharing it with others (Project Zero, 2010).

Three areas of education and learning are covered by MLV (Project zero, 2010):

- How observation and documentation form, advance, and make learning apparent for adults and children.
- How knowledge and culture are transmitted and created by teachers, students, and others.
- How to facilitate individual and group learning in the classroom by instructors and students

Through “studio arts” instruction, artist-teachers want to foster certain types of learning in their students. Additionally, it outlines three "studio structures" that visual arts teachers might use to plan their classes' schedules and interactions. The strategy focuses on developing students' internalized habits of mind or learning dispositions. The project emphasizes thinking and comprehension in the visual arts (Project zero, 2010).

In Alameda County, California, from 2003 to the present, continual professional development and research have been carried out. Additionally, the framework is now being used by the 18 districts of Alameda County in conjunction with the Teaching for Understanding Framework, Reggio Emilia-inspired principles, and ideas derived from Project Zero's *Making Learning Visible* and *Making Thinking Visible* programs. Arts learning coaches, who are partners in the arts from higher education and cultural organizations working in the fields of dance, drama, music, and visual arts, and non-arts and arts specialists at elementary and middle, as well as high school grades, collaborate with teachers to develop and deliver curricula that emphasize student understanding and strictly integrates the arts with instruction in other subjects. The project aims to promote arts and non-arts learning for kids at the lower end of a racially predicted achievement gap by building on district-wide culturally responsive teaching strategies and practices. Intentional links are created to required texts and curricula and to contemporary artists and artistic practices. (Project Zero, 2010).

2.2.6.1.3. Arts Propel

The Educational Testing Service and the Pittsburg Public School System were working together on a project called Arts Propel or Arts Survive that aimed to evaluate learning and progress in disciplines like music, creative writing, and the visual arts that are typically ignored by standard measurements. Arts Propel has created a number of modules, or domain projects, that support curriculum and assessment objectives. These projects are collections of exercises, and learning exercises planned around a concept essential to a definite artistic ground, for instance, musical composition, playwriting character and discourse, and graphic design in the visual arts (Gardner & Hatch, 1989).

This program was designed to emphasize their instruction in artistic activities for high school students. It focused on studying exercises to foster artistic, literary, and musical abilities. Its name is an acronym comprising the terms "production, perception, and reflection + learning," which constitute the three necessary skills. Here are how these three competencies are described:

- Production: a painting or a drawing.
- Perception: Use judgment or discrimination within an artistic medium; "think" artistically.
- Reflection: attempting to detach oneself from one's interpretations or works, or those of other artists, in order to better realize the objectives, plans, complications, and outcomes obtained.

Multidisciplinary teams were formed to create the essential competencies for each art form. Due to the experience, two new educational processes were developed: a set of exercises and the development of a process folio to replace the portfolio or folder, including all production-related materials, such as roughs, sketches, drafts, etc., as well as other artists' works that significantly influenced the creation of the student's own work and are related to the creation of the artworks itself (Pedreno, 2018).

2.2.7. Multiple Intelligences (MI) Classroom

In the traditional or teacher-in-front classroom, students sit at desks, listen to the teacher lecture, watch the teacher presenting lessons, write on the blackboard and take notes, but students in an MI classroom are put in the center of diverse activities. MI settings offer learners a variety of tasks, ideas and artistic projects (e.g., journal writing, painting, board games, photography, classroom theater, puzzles and hands-on activities). There are wide opportunities for students in an MI classroom to learn: The children might sketch using their spatial intelligence, compose a song

about the lesson, choose a melody using their musical intelligence, act out an interaction or create a play using their bodily-kinesthetic intelligence.

In MI classroom, students become motivated in learning because they can easily find their interests and feel more freedom and more comfortable when there are amounts of choices provided for them. They learn how to use their imagination and creativity. Students also learn how to present their abilities and how to apply them to solve problems in real life. In fact, MI settings are student-centered in which students act as an agent, and teachers act as an observer and consultants.

Teachers look at students doing different performances, explore how they are learning and working, and then plan for efficient instruction. The teacher explores learners' multiple intelligences, interests, learning preferences, and learning styles.

MI setting provides an opportunity for teachers to work together. The likelihood that MI will thrive in school increases when educators cooperate because they can share and learn from one another (Hoerr, 2000). The beauty of using MI is that any teacher, or, ideally, each group of teachers, can utilize it in a manner that reflects the school 's exceptional context and culture.

One essential fact is that "utilizing MI does not necessarily entail structuring a session in nine different ways, in its place, designing rich learning opportunities that foster each student's combination of intelligence. Teachers must, therefore, provide students with rich learning opportunities so that they can interact meaningfully with the material rather than merely learning it in an abstract, decontextualized way". Rich experiences allow for simultaneous learning in social, spatial, kinesthetic, and self-reflective, along with various dimensions. Teachers might also get diagnostic data from them. Teachers can watch students perform to identify the reasons for misunderstandings and determine how students can have a superior understanding (Moran; Kornhaber; Gardner, 2006).

Furthermore, no two teachers will apply MI concepts in precisely the same way. There is no one right response or path to take. One needs time, perseverance, imagination, and creativity to incorporate a new theory into one's teaching. Teachers will continue to experiment with new ways to integrate MI theory in their classrooms as they face new obstacles, since they are constantly looking for better resources to propose to their pupils. The MI model may be applied in an unlimited variety of ways depending on teachers' expertise and their discernment of how to best meet their students' requirements (Hoerr, 2000).

In a MI environment, teachers and parents of students have great relations. Parents are given more opportunities to interact with schools, and teachers are expected to do a better job of educating the parents of their students (Hoerr, 2000).

MI classrooms or activity centers are designed to let students explore each domain in accordance with their nine intelligences, including:

- In the Personal Work Center (Intrapersonal Intelligence), students learn the area of study by searching, reflecting on their learning, or completing individual tasks.
- In the Working Together Center (Interpersonal Intelligence), they develop their group-based learning ability, acquire problem-solving abilities, reply to questions, generate learning games and come up with ideas to discuss the day's topic.
- At the Music Center (Musical Intelligence): students learn rhythmically, compose and perform music on the topic and make their own instruments.
- In the Art Center (Spatial Intelligence), students investigate a topic utilizing a range of artistic mediums, puzzles, charts, and images.
- In the building center (kinesthetic intelligence), They construct models, dramatize events, and dance, all in ways related to the subject matter of the day.

- In the Reading Center (Linguistic Intelligence), students use several traditional techniques to read, write, and study; moreover, they arrange and analyze written information.
- In the Maths & Science Center (Logical/Mathematical Intelligence), students learn via mathematic games, hands-on activities, mathematical concepts, scientific experiments, deductive reasoning, and problem-solving (Campbell, 1991, p. 2).

Learning centers, also known as "Learning Stations," are places set up around the classroom where students can engage in either small group or individual activities. Each of these centers and materials that complement one another provide students the instrument and resources to accomplish activities and mini-projects (Armstrong, 2000).

There are different types of activity centers, from permanent to impermanent, open-ended to topic-specific. Permanent centers for open-ended activities are created to offer pupils a variety of open-ended experiences in each of the eight intelligences. Temporary topic-specific task centers are frequently changed and focused on a single theme or subject. It often takes a year. For instance, if pupils are learning a chapter on housing, we might develop eight different centers that engage learners in beneficial activities across all intelligences. (Armstrong, 2000).

A classroom instructor can set up temporary open-ended activity centers rapidly and with relative ease. A basic example of this kind of center would be eight tables scattered throughout the room, each with an easily identifiable intellect and stocked with materials relevant to that intelligence, which allows students to engage in activities with a variety of possible outcomes or open-ended tasks. Games are especially suitable for short-term, unstructured activity centers.

Permanent topic-specific centers present activity centers that are fundamentally a combination of (ongoing and permanent) and (topic-specific and temporary) activity centers. They are best suited for educators working on yearly topics (Armstrong, 2000).

2.2.8. Multiple intelligences & Art classroom

Psychologists at King's College in London examined and verified the relationship between an aptitude for drawing and intellect to determine the significance of art education, specifically drawing. Drawings by children in this study revealed subsequent intellect in them. They discovered that kids who could draw performed far better on intelligence tests than those who could not or did not draw, although this can cause worries to parents of children who lack artistic talent. Arden concludes that artistic talent is not directly related to intelligence; they are merely interrelated (Zemberova, 2014).

Howard Gardner's theory of Multiple Intelligences has implications for art instruction. According to Gardner's view, people can be intelligent in various ways, including linguistic, mathematical, logical, musical, bodily-kinesthetic, spatial, interpersonal, naturalist, and intrapersonal. As every student has various capabilities as well as limitations, Gardner advises teachers to "demonstrate the material in manners that draw on as many diverse intelligences as possible to assist learners in realizing their abilities and their flaws" (Eggen & Kauchak 2012).

In art classes, almost any intelligence may be connected to the art lesson, which will result in a deeper understanding and appreciation of the arts. Knowing that every learner has intelligence and that by fostering each intellect, more learners are expected to prosper in an art school helps the teacher's perception of student learning (Foster, 2013).

Many academics agree that the arts afford learners many chances to feel successful because they provide various learning opportunities that meet a wide variety of intelligence and learning styles (Gullat, 2007). A long-term objective of teachers is to teach multiple intelligences; because learners have different intelligences, it is vital to be able to connect with some of them through art (Gravalin & Maki, 2013).

The linguistic intelligence has a few connections to art. In his article entitled "Toward More Arts Education," Gardner (1988) reasons that there have been several resemblances between linguistics and arts. He adds that teachers should think of the arts as "including specific symbol groups' usage in specific ways," such as paying close attention to fine details in a symbolic pattern. To actively participate in the creative process, one needs "reading" and "writing" in these various symbolic systems. Therefore, it is helpful to think of arts education as communicating literacy skills related to artistic symbolism. These symbolic links closely connect linguistics and the arts together. One way to include linguistics in a middle school art class is by asking students to creatively inscribe a story about a piece of art without providing any background information about the work or the artist who made it. In contrast, pupils might produce artwork in combination with their language arts class in reaction to a desired book or poetry (Foster,2013).

Logical and mathematical intelligence might be integrated through the study of fractal art, which is identified as "a form of computational art generated by computing fractal shapes and presenting the computation outcomes as still picture" (Fractal, 2012). Although middle school kids generally won't be able to comprehend the algorithms used to make fractal art, it is still feasible to study and enjoy fractal art without understanding the algorithms. As an illustration of logical reasoning in the arts, students might reach an assumption about the meaning of an artwork and preserve it on the basis of indications regarding the artist's life. Gardner himself recommended the "perceptual task of distinguishing an original of the Mona Lisa from fakes of various degrees of persuasion" as an example of applying logical thinking to art assignments (Gardner, 1988).

Integrating music into the art classroom can be enjoyable and exciting for students to learn vocabulary and reading. The first instance would come after a lesson on vocabulary used to describe art. Students might be asked to discuss how the vocabulary translates to music by playing

different genres of music and playing samples of what constitutes "good music" and "bad music," Then, they were asked to explain why the "good" was good and the "bad" was bad by using newly learned vocabularies. The second instance involves making the pupils respond to numerous musical genres while practicing their abstract reasoning skills. Theoretically, listening to metal extract has an unlike result than listening to classical music, and it appears that middle school pupils enjoy this assignment (Foster, 2013).

All of the fine arts require spatial intelligence, especially realistic drawing, still-life drawing, and sculpture require it most. By giving these kinds of assignments, spatial intelligence might be fostered. Actions and tasks like rescaling pictures and generating 3D objects will create greater spatial intelligence (Foster,2013).

The most common application of bodily-kinesthetic intelligence is in sports, but it can also be used in dance, choreography, and performance art. Even though performance art and choreography are often taught in a distinct class from general art programs, which are typically referred to as theater arts, requesting pupils to design a performance or produce a theater work fits under the category of "the arts." It is possible to include this intelligence in the classroom by permitting students to do jumping jacks or yoga poses whenever energy levels are high and some students are restless. This will give the opportunity to bodily-kinesthetic learners to stretch their bodies and become more focused (Foster, 2013).

Interpersonal skills will be developed when students are matched for group projects or tasks. Switching table groups will improve each student's interpersonal intelligence by requiring each student to adjust to different personalities in a small space. Through creating the community class using conversations, field trips, and group critiques, interpersonal intelligence will develop. The three things that will enhance intrapersonal intelligence the most are person work time, teacher-

guided self-reflection recorded in drawings books, and a self-critique to accomplish each project. The fine arts are deeply personal and, as stated, a significant emotional and spiritual outlet. Providing a secure, loving environment in the classroom and insightful questionnaires will assist in guiding learners toward enhancing their intrapersonal intelligence (Foster, 2013).

Giving learners a chance to discover art in relation to nature can help them develop their naturalist intelligence. Students can develop their naturalist intelligence through exercises like drawing, sculpting, and taking pictures of nature. The outdoors can be one of the best classroom settings, and the idea of applying lesson plans can happen outside, either on the school campus or on a field trip to other locations. (Foster,2013).

Foster argued that the arts are extremely a significant emotional and spiritual outlet. However, she stated that as a teacher, you must set clear, analyzable objectives, concepts and aims for student progress (Foster, 2013).

Gardner (1999) asserts that, technically speaking, "intelligences are not inherently artistic or non-artistic. The way multiple intelligences work is creative in that they discover specific characteristics of symbolic systems. Spatial intelligence can be applied in an artistic way by a sculptor or an architect or in a non-artistic fashion by either a geometer, a topographer, or a surgeon. The existence of an independent artistic intellect is instantly questioned when considering a pluralistic conception of the intellect.

Gardner (1999) stated: there is not. Instead, each type of intelligence may be directed to artistic goals; for instance, the symbols used in various types of knowledge may be ordered aesthetically. (1995 Gardner). This hypothesis would be verified five years later (Gardner, 1999, p. 118). It is interesting to research deeper into the definition of one of these seven intelligences in our field of study: spatial intelligence. Its sources can be found in the human capacity for spatial problem-

solving, including activities like orientation, navigation, using maps as notational systems, visualizing objects from various angles, chess, and the visual arts (Pedreno, 2018).

2.2.9. Visual Artistic Task for Reading

Humans have historically valued spatial learning, as the prehistoric man's cave drawings evidence has indicated. Unfortunately, the "sensory-channels" paradigm, which calls for teaching children information through both auditory and visual modalities, occasionally results in teachers just writing on the board, which is a linguistic activity. Spatial intelligence involves pictures, either the "pictures in one's mind" or the "images in the outside world," such as photos, films, drawings, graphemes, ideographic languages, or other visual media. Here are five instructional techniques for utilizing students' spatial intelligence in the classroom (Armstrong, 2009).

A) Visualization

Having students close their eyes and visualize the subject they are learning is one of the simplest techniques to assist them in turning text from books and lectures into images and pictures. One way to use this technique is to have learners imagine their "inner blackboard" (or film or video screen). They can then write any information they want to recall, spelling words, math equations, historical details, or anything else on this mental blackboard. Students just need to "see" the knowledge that is already written on their mental chalkboard while given the task of recalling a specific body of information. A more open-ended function of this strategy includes making students close their eyes and imagine pictures of what they have just read or learned (e.g., a chapter or a story in a textbook). Then, they can draw or express their understanding and feelings. In order to introduce students to new concepts or material, teachers might also lead them via more structured "guided imagery" courses (educating students about anatomy by giving them a "guided

tour" of the systemic circulation). These exercises may expose students to non-spatial content as well, such as kinesthetic images, verbal images, or musical images (Armstrong, 2009).

B) Color Cues

Highly spatial learners are frequently color-sensitive. Unfortunately, copybooks, workbooks, chalkboards, and black-and-white textbooks dominate the school day. However, there are lots of inventive ways to use color as a teaching tool in the classroom, using a variety of chalk, marker, and transparency colors when writing in front of the class and giving the kids colored paper, pens, and pencils to complete their tasks. Students can learn to use different colored markers to "color code" the content they are studying (e.g., highlight each of the important points in red, each of the supporting ideas in green, and each of the indistinct passages in orange). While teaching, the teacher can utilize color to call attention to patterns, instructions, or classifications (e.g., when teaching phonics, coloring all the th's red or describing different eras of Greek history with different colors). Lastly, when dealing with difficult topics, learners can use their favorite colors as a stress reliever. When learners come across a word, problem, or notion that they don't understand, for instance, they can picture their favorite color filling their thoughts to assist them in finding the correct answer or make it clear for better understanding (Armstrong, 2009).

C) Picture Metaphors

A metaphor compares two concepts that, at first glance, appear to be unrelated. This idea is expressed visually with a picture metaphor. According to developmental psychologists, young children are expert at using metaphors (Gardner, 1979). Sadly, as kids become older, this ability frequently declines. Educators might draw from this secretive resource, using metaphor to aid pupils in learning new material. Making connections between what is being presented and what a learner already understands is where metaphors' instructional usefulness lies. Consider the main

idea or important point that you want the pupils to learn. Then, relate the concept to an illustration or visual image. Build the entire metaphor on your own (Armstrong, 2009).

D) Idea Sketching

Thomas Edison, Henry Ford, and Charles Darwin, among others, used simple sketches to create many of their influential ideas, according to a review of several of their notebooks. The worth that this kind of visual thinking can have on pupils' capacity to express what they have learned should be recognized by teachers. The idea sketching strategy includes requesting students to draw the major point, main idea, central theme, or fundamental concept being trained. It might be supportive to play the game Pictionary to prepare students for this kind of drawing. Students familiarize themselves with the concept of making quick drawings to convey central ideas. Start by requesting learners to sketch the concept or the idea you would like to emphasize further in the class. This tactic can be utilized to assess a student's comprehension of a subject, to underline a point, or to provide students the chance to understand a concept more deeply. It is crucial for a drawing activity to be followed up by talking about the connection between the drawings and the subject matter (Armstrong, 2009).

2.2.10. Research on Multiple intelligences & Reading Comprehension

MI is an approach that has the potential to reflect the effects of individual characteristics in the variation of performance on language tests. Teachers and test designers must be aware of the intelligence profile of every individual because Multiple intelligences are the basic factor that influences test performance.

Some researchers have investigated the effectiveness of MI and language testing, in particular, reading comprehension achievement tests (e.g., Gardner, 1999; Gaines & Lehmann, 2002; Armstrong, 2003; Pamela, 2003; Burman, 2003; Abdulhamid, 2009).

Gaines and Lehmann (2002) provided details of a project based on MI that aimed to increase students' reading comprehension skills. Recognizing the students' reading comprehension deficiencies was the driving force for the research. It was discovered that implementing MI methods helped pupils in the improvement of reading comprehension skills and better academic performance.

An action research project that raised students' academic reading achievement was defined by Pamela (2003). According to Pamela, it's critical to utilize the MI theory in the classroom because it has a positive impact on students' reading self-efficacy.

Burman (2003) designed an action research project aimed at enhancing first-graders reading comprehension abilities. The findings revealed that by multiple intelligences implementation, parental involvement was enhanced, and students demonstrated significant growth in knowledge of reading vocabulary words (as cited in Abdulhamid, 2009, p.680).

The findings of Abdulhamid's 2009 study showed that the MI program was successful in raising pupils' levels of reading comprehension and word recognition skills.

McMahon and Rose (2004) assessed the validity of Teele's (2000) Inventory of Multiple Intelligences (TIMI), as well as looked at the connection between reading proficiency and intellectual preferences. Their findings showed that the instrument does not afford reliable measurement and requires additional development and refining, although a link between reading comprehension and logical-mathematical intelligence was discovered. (Arikan & Saricaoglu, 2009, p. 112).

Akbari and Hosseini (2008) conducted research to examine if there was any connection between the multiple intelligences scores of EFL learners and the language learning methodologies. The study included 90 participants. The MIDAS test was used to calculate the multiple intelligence scores of the

participants. Strategy Use Inventory for Language Learning, or SILL, was used to evaluate the learners' use of strategies. The findings of the correlative analysis showed a powerful correlation between the learners' IQ scores and the language learning strategies. However, kinesthetic intelligence was only connected with memory learning strategies, and musical intelligence did not correspond with any component of strategy utilization.

According to Sukeemok's (2012) investigation on the impact of MI activities on Thai students' reading comprehension (RC) and interest in learning English, MI-based instruction boosted both the students' improvements in reading comprehension and their desire to learn English.

Zarei & Shokri (2014) looked at the different forms of multiple intelligences as potential indicators of vocabulary and reading comprehension. According to the data analysis, reading comprehension was shown to be predicted by musical, kinesthetic, interpersonal, and logical intelligence. Also, musical, visual, verbal, and natural, as well as kinesthetic intelligence were important in predicting vocabulary knowledge.

The impact of reading teaching based on multiple intelligences on the critical thinking and reading comprehension abilities of EFL learners was examined by Roohani & Mirzaie (2015). In comparison to the traditional group, the reading comprehension scores in the MI-based group or experimental group improved more noticeably. However, group's Critical Thinking (CT) ratings did not considerably increase. Additionally, after the treatments, there was no statistically significant change in the critical thinking scores among the two groups. The development of MI-based lessons and activities for diverse students and the use of explicit teaching to improve (CT) abilities in ESL reading courses is therefore suggested for EFL educators.

Zahedi & Moghaddam (2016) assessed the correlation between MI and EFL students' performance on several reading comprehension exams. They used the multiple-choice and cloze test to measure

students' reading comprehension. The outcome showed a favorable correlation between performance on the multiple-choice and cloze tests and the overall MI score. Linguistic, intrapersonal, spatial, and mathematical intelligence is positively linked with reading multiple-choice tests. The cloze test's results were significantly connected with verbal, spatial, and mathematical ability. The outcomes of regression equations also demonstrated that MI scores forecast both performance on cloze and multiple-choice tests. Among its sub-intelligences, linguistic intelligence predicts performance on the cloze exam, while musical intelligence predicts performance on multiple-choice questions.

Tabrizi (2016) studied the relationship between the multiple intelligences of Iranian EFL students and their reading comprehension skills. One hundred seventeen senior English students were chosen at random for the study. The information was acquired and assessed after the administration of two separate tests, the TOEFL Reading Comprehension Section (Longman, 2005). and the MIDAS questionnaire for adults (Shearer, 1996). The results demonstrated a significant relationship between reading comprehension scores and all categories of learners' MI profiles, with verbal-linguistic intelligence being the most important predictor of readers' comprehension abilities. Visual-spatial was the second, and Interpersonal Intelligence was the third predictor of the learners' reading comprehension. Furthermore, neither the learners' intrapersonal nor kinesthetic intelligence was able to predict their reading comprehension.

Celik and Sulyman (2019) examined how grouping students who are using various multiple intelligences activities based on their dominant multiple intelligences affects the evolution of their reading abilities. The findings of this study revealed that the student's abilities to comprehend and mentally picture the meaning of what they read have greatly improved.

Song and Lee (2019) examined the direction of reading education programs. The outcomes showed that interpersonal intelligence was used to operate the reading education programs in the schools. The

most often used methods in elementary, middle, and high schools for reading education programs related to linguistic intelligence were reading books, writing with literature, and writing book reports. When it came to reading instruction, programs related to spatial intelligence, the media production type was found to be the most frequently used in all sorts of schools. However, A reading program for naturalist intelligence didn't exist.

Sadeghi, Abusaeedi, and Jafarigohar (2019) investigated the relationship between student reading proficiency and personality traits and multiple intelligences. To do this, 384 EFL pupils contributed to the research. Two surveys were administered to the participants: the NEO personality survey and McKenzie's (1999) MI questionnaire, along with a sample TOEFL reading comprehension test. The statistical research revealed that there existed only positive and straight relations between interpersonal intelligence and reading comprehension ability, as opposed to other intelligence like intrapersonal, existential, naturalist, etc. This would represent the reverse relationship between the criteria variable and reading ability. It was discovered that agreeableness was the only character attribute that showed a straight and negative association with the standard variable. The standard variable was also found to have an indirect relationship with traits including carefulness and sociability and spatial, verbal, and mathematical intelligence. All the cited relationships between EFL learners' personality traits and multiple intelligences with their reading proficiency would result in the researchers settling that although diverse readers tend to do in a different way while reading a text, even if they have various reading preferences, they are interested in being consistent in their performance.

Suson, Barathate, et al. (2020) looked at how individualized teaching might improve comprehension skills in basic. Four varied instructional techniques for guiding reading instruction were examined in the study. The results showed that, regardless of the circumstance, apprentices were educated using all of multiple intelligences. The findings suggested that, from a pedagogical perspective, teachers should be

creative to support and afford the requirements of diverse learners and enriched reading activities and differentiated teaching should be combined to strengthen learner competency in fundamental reading comprehension. The amazing finding is that despite the fact that students learn differently, there are some learning circumstances that students learn in the same way. Teachers, therefore, need to understand that pupils have diverse version of learning.

Gonzales and Diva (2021) examined the impact of eighth-grade students' multiple intelligences and their reading comprehension skills; no significant relationship was found between variables. Additionally, there was no prominent multiple intelligence among the responders. Therefore, it suggested that multiple intelligences do not directly influence learners' ability to comprehend what they read. As a result, other aspects like a person's interests and habits must be taken into consideration to assist them in enhancing their ability to learn a language. Therefore, It was recommended that other elements, such as an individual's interests and habits, must be considered to build the talent for language acquisition since multiple intelligences do not directly influence a learner's reading comprehension ability.

Shereen, A., and Abdullah. (2022) examined whether using activities based on the Multiple Intelligences (MI) Theory assisted dyslexic primary-six students with their English reading comprehension, and the results confirmed that implementing activities according to the Multiple intelligences theory in teaching pupils resulted in considerable improvements in their reading comprehension skills.

2.3. Reading comprehension

2.3.1. Introduction

In modern societies, the need for effective reading has increased due to the vast amounts of information available to people. People read in educational, professional, and workplace environments, where it can be highly taxing. We must frequently synthesize, understand, assess, and employ textual information sparingly in these situations. General comprehension reading is the most popular kind of reading.

Reading comprehension is defined as "the process of simultaneous eliciting and making meaning through interaction and involvement with written language" (Snow, 2003, p. 1). According to Snow (2003), in order to comprehend the text's meaning while reading, the reader must read words precisely and quickly, decipher phonologic and syntactical information, use vocabulary and prior knowledge, retain what has been read, understand the purpose of reading the text in order to draw inferences at various levels of difficulty, and efficiently use meta-cognitive strategies.

Readers analyze text at three different levels of text processing while reading, according to Kintsch (1994, cited in Morrow, 2007, p. 133): at the word level, text-based level, and discourse level. Word-level processing uses lexical analysis and orthographic decoding to access word meaning. The process of establishing connections between ideas to create propositions (also known as idea units) and incorporating them into the text's semantic representation is referred to as text-based level processing. Discourse-level processing involves building a situation model, an elaborate representation in which the propositional content of the text is merged with knowledge from the past knowledge of the reader.

Developing reading comprehension abilities is a difficult task because reading comprehension is an intrinsically multidimensional concept. The reader, the text, and the act or goal of reading are the three components of reading. In terms of the reader, consider what is being brought to the act of reading, the ability, knowledge, and experience of the reader. The text includes all reading materials, whether they are printed or digital, and the activity takes into account the function, mechanics, and results of reading (Marshall, 2006).

According to Snow (2003, p. 4), the context is defined by the reader, the text, and the activity. Contextual elements that can influence reading comprehension in an educational setting include the classroom environment, home environment, socioeconomic level, class membership, ethnicity, home language use, neighborhood, and school culture. The reader both shapes and is shaped by this sociocultural context.

Reader, text, and activity are dynamically connected and modified over time. Numerous cognitive, metacognitive, motivational, linguistic, and nonlinguistic abilities are present in reader. Some of these features, as suggested by Snow (2003), may alter during reading; for example, the reader may acquire a few new vocabulary words or facts, or they may get more engaged in the subject matter of the text. Some of these changes may even become permanent. Additionally, reading evolves through time as readers' cognitive abilities grow, as they encounter harder texts, have new experiences, and as they gain from education.

2.3.2. Types of Reading

Readers engage in the process of reading for various purposes, particularly in an academic context: Readers require engaging in reading to select information, evaluate information, integrate information, synthesize data, or require reading for learning. Academic purposes for reading can be summarized as follows:

1. Reading to search for information (Scanning and skimming).
2. Reading for immediate comprehension (Skimming)
3. Reading for knowledge integration;
4. Reading for learning
5. Reading for information evaluation, criticism, and usage
6. General comprehension through reading (Reading for interest or reading to entertain)

Readers use search techniques to find particular information. Searching involves scanning and skimming. As Grabe (2008, p.9) contends, skimming entails developing a basic comprehension of material quickly. It can also be used for a variety of purposes, such as when a reader skims a text to understand what the writing is about and choose which section to read first. The reader may choose to read a more challenging book to achieve a sense of how the author directs the reader and what is necessary to comprehend the text. When a reader needs to read through numerous texts and decide which ones to pay closer attention to, they may skim. When a reader is under a lot of time pressure and must make a decision regarding the value of the information in writing, he or she may skim. Finding a text's specific information is referred to as scanning. Skimming and scanning are extremely fast-paced operations. An information search can be done by a reader by combining scanning and skimming.

Reading for information integration necessitates the reader synthesizing and learning info from several texts or combining information from various passages of a lengthy work. Reading for learning or reading for general understanding are simpler and easier tasks for readers in academic and proficient settings.

Reading for information evaluation, analysis, and usage further increases demand and complicates the interplay of reading processes. The ability to apply, and particularly rhetorically regulate, a reader's attitude, emotional replies, interests, and preferences in the text's interpretation is the biggest requirement of this form of reading, in addition to the capacity to develop a careful knowledge of the text. Reading for learning and reading comprehension are the two most popular reading genres.

It's common practice in academic and professional environments to read for learning. It happens when a text's key information is detected, and that data may be applied for a task or be required in the upcoming. Reading for learning increases the reader's processing demands because they are expected to retain key ideas and supplementary information and be able to recall it when necessary. The reader must also make connections between the text's content and knowledge already stored in their long-term memory, such as past knowledge. Reading for learning usually happens at a slower rate. A good reader structures the information into a framework that is factual and coherent in light of the information provided in the text. There are expectations for the reader to use supporting information, to develop a forming frame of reference (e.g., establishing information by cause-effect, comparison-contrast), and to develop a close incorporation with previous knowledge when reading to learn as opposed to reading for general comprehension (Grabe, 2008).

When we enjoy a nice novel, an interesting newspaper story or feature article, or a magazine, we read for general comprehension, which is the most frequent reason for reading. There are many intricate steps involved in reading for broad understanding. These procedures serve as a foundation for reading for other goals, such as learning and evaluating. The process of reading for broad

comprehension can be done automatically for long stretches of time with no difficulty (Grabe, 2008).

2.3.3. Reading Comprehension Models

To characterize reading comprehension, researchers have suggested various models of reading. Two models of reading are described here.

A. The Process Model

One model of reading is known as the "process model," which refers to mental operations that occur during reading. "Process model" includes a) a bottom-up approach, b) a top-down approach, and c) an Interactive model. The second model of reading is called the componential model, which focuses on the result of comprehension without caring about the process by which comprehension is achieved.

B. Bottom-up Approach

The term "bottom-up process" describes a method in which readers comprehend the meaning of a passage based on the incoming language data, starting with the letters, moving on to the words, and then the grammatical relationships to the meaning of a text that is, the meaning of the passage is reached at, bottom to top. (Celce-Murcia, 2001, p.74).

Simply said, the reader pays attention to certain words and sentence structures within the text to develop an interpretation of the whole text. The Gough (1972) model is regarded as the most widely used example of bottom-up theory.

Readers initially recognize a range of language cues during bottom-up processing (letters, words, morphemes, phrases, syntactic keys, discourse indicators, etc.). Then, apply some type of order to these signals using their linguistic data-processing mechanisms. These data-driven activities undoubtedly call for a highly complex knowledge of the language itself (Brown, 2001).

Bottom-up techniques are serial models that operate in a linear manner; each component entails a number of distinct sub-processes that are independent of each other and made upon prior sub-processes. A lower-level component cannot give feedback to a higher-level sub-process; for example, the identification of meaning does not result in letter recognition (Alderson, 2000). This method is sometimes linked to behaviorism from the 1940s and 1950s as well as "phonics" methods to reading instruction, which contend that children must first learn to recognize letters before they can read words. According to the conventional theory, readers serve as passive interpreters of serial visual, phonemic, grammatical, and semantic systems (Alderson, 2000).

C. Top-Down Approach

Top-down, interpretative processing has received increased attention in recent years. The top-down method owes a lot to the research of Smith (1971) and Goodman (1962, 1982), who place a strong emphasis on the reader's participation in the reading process (Alderson, 2000). The ability of the reader to utilize prior knowledge to assist in the work of comprehending a written text is referred to as the top-down aspect of reading. In fact, readers develop predictions about what the text will be like and how its component parts fit to form the total. According to Celce-Murcia (2001, p.74), top-down processing, which incorporates prediction and inference based on hierarchies of facts, prepositions, and expectancies, allows the reader to avoid some aspects of bottom-up processing (Richards, 1986).

Schema-theoretic reading models emphasize the importance of the prior knowledge that a reader brings to a text. They are according to the schema theory that explains how information is acquired and how text is interpreted by activating schemata, or the network information that is stored in the brain and serves as a filter for incoming information. In this approach, readers transfer incoming information onto what they believe to be relevant existing schemata. Reading is

successful to the extent that these schemata are pertinent. Top-down strategies place more emphasis on these schemata and the reader's input than the external text (Alderson, 2000).

General, subject-specific, and cultural background knowledge make up a reader's knowledge base. Three structures have been used to describe prior knowledge: frames, scripts, and schemata (our understanding of concepts). As a result, when a topic is mentioned in a text, our prior knowledge about it is triggered, and this knowledge has a big impact on how we understand the text (Johnson, 1998).

D. Interactive Model

The most widely recognized view of reading in both first and second language acquisition is that reading is an "interactive model" in which "bottom-up" processes like word recognition interrelate with "top-down" processes like prior knowledge of the text type or subject. This model of reading has had a clear impact on resources for L2 reading (Johnson, 1998).

E. Componential Model

Although multi-componential abilities make up the reading construct, componential model proponents disagree on the number, extent, and type of reading skills (Grabe, 1991). According to one interpretation of this approach, vocabulary and general reading comprehension are the two individually measurable components of reading (Berkoff, 1979; Carver, 1992). For the English for Academic Purposes Reading Test, Weir and Porter (1996) offered a four-part classification of reading strategies and skills: rapid reading at universal, and regional levels as well as close reading at both levels (Jang, 2009).

2.3.4. Levels of Understanding

A consideration of the nature of reading must contain recognition of frequently expressed distinctions between levels of meaning and understanding in and from text, and test designers must take into account the level of meaning they believe a reader should comprehend of a text.

Reading theories have been proposed at various comprehension levels. In 1960, Gray referred to "reading the lines," "reading between the lines," and "beyond the lines." The first one speaks of a text's "literal meaning," the second one of its "inferred interpretations," and the third of its "reader's critical judgments." A hierarchy of understanding levels is produced as a result of this value evaluation. Critical comprehension is thought to be higher than the literal level.

There is a presumption that reaching a critical comprehension of a text is harder than inferring meanings and that both are harder than grasping a literal meaning. Critical knowledge of a book is also thought to be more highly regarded by society than a purely literal understanding, and it is also thought that implied meanings are somehow deeper than literal meanings. It is generally considered that readers learn how to interpret texts literally at first, then deduce meanings from them, and only then do they learn how to approach texts critically and evaluate them. As a result, the idea of understanding levels becomes overburdened with an ordered hierarchy of more valuable and challenging meanings (Alderson, 2000).

2.3.5. Component skills of reading comprehension

Reading researchers have made an effort to pinpoint the reading talents or skills needed to process various levels of meaning. Reading comprehension models fundamentally distinguish between lower-order as well as higher-order reading comprehension skills. Lower-order skills include the ability to recognize words and letters, which is a requirement for lexical access. Higher-order cognitive abilities focus on text comprehension.

There are numerous talent taxonomies and even skill hierarchies that have been constructed to date. Munby's taxonomy of micro-skills (1978) has influenced the design of language assessments, curricula, and syllabi for second-language learning (Alderson, 2000, p. 9). Other prerequisites for text comprehension include subject-matter expertise and intellectual, metacognitive, and strategic skills. (Gelderen et.al. 2003).

There are a number of different viewpoints on the subject of reading abilities:

- According to the first perspective, reading is a single, all-encompassing skill. There is no proof that reading has different, independent talents; rather, it appears to have a single construct (Lunzer, 1978).
- Alderson's (1990) second point of view was that at least some of the reading procedure Likely contains the synchronous and varying application of various overlapping "Skills." Alderson (2000) asserted that, despite its allure, it does not appear that the classification of skills into "higher" and "lower" orders is justified in practice
- The third perspective, which is gaining popularity in the research literature, holds that reading may be roughly broken down into two parts: word recognition and comprehension. Parsing sentences, interpreting sentences in conversation, creating a discourse structure, and fusing this understanding with the reader's prior knowledge are frequently defined as components of comprehension (Gough, 1992, cited in Alderson, 2000, p. 11).
- Another alternative is presented by Carver (1982, as cited Alderson, 2000, p.11), who holds that reading consists of three distinct parts: a) word recognition skills, b) reading fluency, and c) problem-solving comprehension abilities. He distinguishes reading from memorizing, studying, skimming, and scanning.

Grabe (1991, as cited in Alderson, 2000, p.13) offered six components for a fluent reading process in one of his comprehensive models of reading comprehension.

- Automatic recognition abilities.
- Vocabulary and grammar skills.
- Knowledge is structured through formal discourse.
- Background information on the subject or word.
- Synthesis and evaluation techniques.
- Monitoring of metacognitive skills and knowledge

Whether it is possible to distinguish between and assign labels to different reading talents is a disputed topic in reading theory. As a result, it is unknown whether a) such skills exist, b) what they could include, and c) how they might be categorized. However, despite the lack of a strong empirical foundation, the concept of skills and sub-skills in reading is extremely important, and reading scholars try to find these skills or abilities by creating tests that are intended to measure different levels of understanding of a text (Alderson, 2000).

Accuracy and efficiency in "word reading," which includes creating a mental model of the passage or text, are two of the most crucial reading comprehension skills (Kintsch, 1998). Adams and Snow (1998) argued that effective and accurate word-reading abilities typically reflect a well-developed understanding of speech sounds, also known as "phonological awareness," which aids in word decoding by understanding the relationships between sounds and symbols that are inherent in the word (Lesaux & Rupp, 2009).

Tunmer & Hoover (1993) contended a meta-linguistic talent that is essential to reading comprehension but is a little more sophisticated than phonological awareness is "syntactic awareness," which denotes knowledge of the language's grammatical structure, particularly within

sentences. The sentence and context cues that make it possible to forecast the words that will appear next in texts can be used by readers with strong syntactic awareness skills. Additionally, effective word correction within passages and determining the meaning of a challenging word within a passage allow readers with strong syntactic abilities to monitor their reading comprehension processes (Lesaux & Rupp, 2009).

Understanding a text requires the application of metacognitive abilities. It is the capacity to the application of strategies to order the reading process. The way readers adjust and modify their reading strategies to their reading purposes presents their meta-cognitive skills. This ability appears to be dependent on a metacognitive understanding of both textual features and effective reading techniques. The assumption is that metacognitive information is independent of the language used to write a text. Although it is learned in L1, this information can be used in L2.

Grabe (1991) mentioned a few meta-cognitive skills, such as identifying the more crucial textual information, adjusting reading speed, skimming, previewing, using context to clear up misunderstandings, formulating questions about information, and monitoring cognition, which includes identifying issues with the textual information presented or a failure to comprehend text. Planning, evaluating one's own comprehension, and being aware of and adjusting the strategies employed are examples of self-regulation techniques (Lesaux & Rupp, 2009).

2.3.6. Working Memory

A strong working memory ability is essential to manipulate and temporarily store information. It is crucial during reading since the reader must decipher and recall several pieces of information at once. An effective reader must also access information from long-term memory and blend it with newly received information to create an integrated mental representation of the text

(Baddeley, 1986, 1992). Therefore, working memory is important for many academic skills and everyday tasks (Lesaux & Rupp, 2009).

Researchers are almost universally aware of the limitations of working memory capacity. Lower-order reading processes that are ineffective, slow, and attention-demanding will take up the majority of working memory space, impeding conceptual reading processes. When these lower-order functions run quickly, efficiently, and without requiring any attention, working memory space can be entirely devoted to issues or higher-order reading comprehension (Glerden, 2003).

2.3.7. Prediction

Readers actively construct meaning using their own knowledge rather than just identifying words and letters in a passive manner. Reading is a difficult task that involves making predictions and inferences about meanings in order to read a text.

Goodman (1982) describes reading as a "Psycholinguistic guessing game," in which a person who reads makes assumptions about or predictions about the meaning of a text using the least amount of textual information and the most amount of active knowledge.

Efficient readers possess many qualities and abilities, including cognitive skills such as attention, memory, critical thinking, inference, and visualization. (Snow, 2003). Less expert readers are frequently word-bound readers. Bottom-up processing is not effectively done by such readers. In this situation, guesswork or "prediction" won't be able to fix the problem, which results in automatic word recognition. Actually, proficient readers who possess automatic word recognition ability appear to carry out a fairly complete reading process, with "prediction" (Alderson, 2000).

2.3.8. Inferencing

Inferencing is defined as the process of arriving at meaning on the basis of context (Chastin, 1988, p.63). As Carroll (1971, 1993) argued, the concept of inference is associated with critical thinking. There is a difference between the ability to read and the capacity for critical thinking in that the former is a measure of comprehension, while inference is a cognitive skill more closely associated with thinking capacity (Alderson, 2000, p. 22).

Inferencing is a process that is context-dependent, text-specific, and accounted as a capacity of the reader. It seems that predicting the actual inference of a reader to make an interpretation of a text is a difficult or even impossible task. However, it appears attention to the particular aspects of the individual text can help to make a prediction about what readers generally infer from a text (Brown, Youle, 1983, p. 266).

"Inferencing" is a complex cognitive process related to higher-order reading skills, whereas word recognition is related to lower-order skills. One of the concerns of many test designers and language educators is to ensure that assessments can measure "higher-order" reading skills rather than lower-order skills (Alderson, 2000, p.22).

2.3.9. Reading Comprehension Instruction

The following implications for academic reading teaching and curriculum design are mostly supported by considerable and ongoing research. Despite the fact that they are listed as instructional implications, all but the last of these objectives might alternatively be considered as learner component abilities that require to be developed for effective reading comprehension.

1. Ensure fluency in word recognition.
2. Make vocabulary learning a priority and generate a vocabulary-rich environment
3. Use background knowledge in a suitable way

4. Ensure proficient language skills and general understanding abilities.
5. Teach the discourse arrangement and textual structures.
6. Encourage the strategic reader rather than imparting specific strategies.
7. Increase reading rate and fluency.
8. Encourage in-depth reading.
9. Increase your inner motivation to read.
10. Create a coherent and clear curriculum for the instruction of students. (Grabe, 2004).

2.3.10. Reading Comprehension Assessment

Researcher, teacher, administrator, and policy maker information can all be gained and informed by reading assessments. Assessment procedures can either considerably improve the learning environment or cause excessive damage. As a result, reading assessments need to be performed with the greatest care and respect. Teachers specifically have a responsibility to comprehend the aims and impacts of reading assessment and be aware of the outcomes of the reading assessment. Reading assessment can be applied for various aims, but all the appropriate usages start with a grasp of the reading structure, an understanding of how reading skills develop, and an attempt to represent the construct in evaluation tasks (Grabe, 2009).

Fundamental reading skills include things like recognizing alphabetic symbols, capitalized and lowercase letters, punctuation, words, and correspondences between graphemes and phonemes at the beginning reading level of a second language. These perception exercises are frequently referred to as literacy exercises. This suggests that the learner is still in the early phases of developing their literacy (Brown, 2004). A variety of methods, including those listed below, can be used for assessment of fundamental reading abilities:

2.3.11. Reading Comprehension Assessment Tasks

There are some standardized task formats for reading assessment. Grabe (2009) has mentioned some of these tasks and tests used for second language comprehension measurement as follows:

- Cloze
- Gap-filling formats (rational cloze format)
- C-tests (keep words' first letters eliminated)
- Cloze elide (eliminate spare words)
- text segment ordering
- Text gap
- Selecting from a "heading bank" for certain paragraphs
- Multiple choice
- Sentence completion
- Matching
- Classification into groups
- Dichotomous items (T / F/ not mentioned, Y/N)
- Editing
- Short Answer

2.3.12. IELTS Academic Reading Proficiency Test

The IELTS academic reading section consists of 3 passages, which are gradually getting difficult from one to the third passage. There are (40) questions to be responded to by IELTS candidates in (60) minutes, and after each passage, there are a variety of test formats. Journals, magazines, books, and newspapers are among the sources used to select the Cambridge book

reading texts. The books cover issues of interest to everyone, and at least one text has a comprehensive rational argument.

Each accurate response receives one point, and there is no deducted point. The (60) minutes allotted for answering the questions and the time to transcribe the responses onto your answer sheet. There is no additional time to transfer the answers.

The following are some reading-related issues test-takers encounter on the IELTS exam:

- The major issue is time. Many pupils fail to complete the exam.
- The texts are lengthy and have some difficult terminology
- Questions about “paragraph headings” are challenging for students.
- True/false/not-given questions pose a challenge for students.

2.3.13. IELTS Reading Comprehension Test formats

A variety of question types or test formats are implemented in the Reading section of IELTS, exam including:

- a) Multiple-choice
- b) identifying information (True /False, Not given)
- c) identifying the writer’s views/ claims (Yes/No/Not given)
- d) matching information
- e) matching headings
- f) matching features
- g) matching sentence endings
- h) sentence completion,
- i) summary completion
- j) note completion

- k) table completion
- l) flow-chart completion
- m) Diagram label completion
- n) short-answer questions

One of the important aims of this study is to design artistic reading tasks according to the test formats that have been used in the reading exam. In order to design these tasks, it is critical to know the nature of the IELTS academic reading exam, and it is also important to learn more about skills and strategies that IELTS candidates can take to make the right answers. It must be remembered that the IELTS reading section can be considered as a test of vocabulary. Candidates will do better on the IELTS reading exam if they are proficient in English vocabulary and phrases.

2.3.14. Approaching the IELTS Reading test

Skimming and scanning are the two major IELTS reading key techniques:

A. Skimming

Skimming is the practice of quickly reading over a text to identify the main idea. It is a prediction technique used to give a reader an understanding of a text's subject and purpose, its structure, the writer's point of view, its ease or difficulty, and/or its usefulness to the reader (Brown, 2004, p. 213).

Test-takers have to be able to rapidly find the relevant part of the text to answer the questions. After lots of experience, learners should practice finding and searching information, and they have to choose the words in the question they need to look for. Then, they ought to look for those terms (or words with a similar or identical meaning) elsewhere in the writing.

For skimming a text, it is not required for test-takers to comprehend every word of a text. It's like hopping across stepping stones in a river; it is preferable to jump from paragraph to paragraph,

identifying "the key point" in each paragraph before moving on to the next. Though not always, the first sentence in each paragraph usually is its main idea. The "topic sentence" or "main idea" refers to the sentence that contains the main idea. In order to understand the main points of a sentence on a test, test-takers should focus on "the keywords" in the sentence, which are the subject, verb, and object of the main clause. They should disregard all other words, especially relative clauses and adverbial clauses.

How do you skim?

1. Read the opening paragraph carefully to gain a sense of what will be covered in the passage.
2. Read each paragraph's opening sentence and maybe the second sentence since they highlight its main ideas.
3. After reading the first few sentences, scan the rest of the paragraph, paying close attention to any key details like names and dates.
4. Pay close attention to the last paragraph because it can contain the summary.

B. Scanning

Scanning refers to looking for specific words and phrases in the text to respond to some questions.

Dates, names, numbers, new terminology, and other keywords are frequently used in the IELTS Reading test's questions. In order to make it easier for you to identify the answers in the text, it is a good idea to "underline" those "important words" as you read.

How do you scan?

1. When reading the book, underline critical material (dates, numbers, names, etc.)
2. After reading the question, pick out the important keywords and look for them in the text.

You'll discover the answer more rapidly with this approach.

C. Mapping: Pin Dropping

IELTS candidates may find every passage in the academic reading section of the test to be absolutely strange. It is simple to mislead by all the words they encounter in a section. IELTS test takers require a map that will aid them in orientation. Each paragraph in a section contains a unique "main idea" that stands out from all the others. Write a quick summary of each paragraph's main idea in the margins near it. The main idea or the words in the paragraph that define it can also be "underlined." The term "mapping" or "pin dropping" refers to this procedure. While searching, a map can be created (Smith, 2015, p.7).

D. Understanding (Intensive reading)

Intensive reading, often known as "understanding," refers to reading one area of the passage carefully in order to comprehend what is necessary in order to respond to the question. You must read these sentences intensively after finding information and locating them. This is the last step, and it can be important to know every word at this point. If not, it could be challenging for you to identify the correct response. Now you may practice "understanding" or read extensively (Smith, 2015, p.11).

Chapter 3: Methodology

3.1. Participants

A total of 54 IELTS candidates who attended eight weeks of IELTS Reading preparation classrooms in an IELTS English language center in the Kerman City of IRAN participated in this study. Both female and male candidates were selected to take the test regardless of gender. They were selected from the same English proficiency level to achieve better results according to the recent IELTS scores they reported.

There exist two groups, including a control and an experimental group, in this study. Each group consisted of 27 IELTS candidates. The traditional method of instruction used for teaching reading comprehension of IELTS for the control group and the MI model of instruction focus on Art- education implemented for the experimental group.

Both the control group and the experimental group participated in the IELTS reading comprehension tests as a pre-test and post-test. These two IELTS reading tests were selected from the IELTS Cambridge book, which consisted of a collection of standard IELTS exams. MI questionnaire was administered to both the control group and the experimental group. At the end of the IELTS reading course of study, the experimental group who received Art-Education answered a motivation questionnaire to find out how much they find the MI model of instruction focus on art education exciting, motivating, and enjoyable for them and how much they think it is beneficial for improving IELTS Reading comprehension ability of IELTS candidates.

3.2. Instrumentation & Materials

In this research, two Reading comprehension IELTS tests were selected from IELTS Cambridge Books tests. The IELTS Cambridge book gathered several IELTS exam samples that have been administered recently. IELTS Cambridge book tests are reliable, and the reading texts have high standards in terms of having appropriate length, difficulty, and level of proficiency for measuring the reading comprehension proficiency of IELTS candidates.

The IELTS reading section consists of 3 passages, which are getting gradually difficult from one to the third passage. There are (40) questions to be responded to by IELTS candidates in (60) minutes, and after each passage, there are a variety of test formats. The IELTS Cambridge book reading texts are chosen from journals, magazines, books, and newspapers. The books cover issues of interest to everyone.

Various kinds of questions or test formats are implemented in the Reading section of the IELTS exam, including: a) multiple choice, b) identifying information (True /False, Not given), c) identifying the writer's views/ claims (Yes/No/Not given), d) matching information, e) matching headings, f) matching features, g) matching sentence endings, h) sentence completion, i) summary completion, j) note completion, k) table completion, l) flow-chart completion, m) diagram label completion, n) short-answer questions.

In this study, a Persian translation of the MIDAS scale was administered. The MIDAS questionnaire was developed by Shearer (1996) with 119 items for multiple intelligences measurement. The MIDAS scale was suggested by Shearer (1996) and has been confirmed by Gardner (1996). As Gardner (1996) argued, MIDAS has been made according to standard

psychometric procedures in a careful and cautious way associated with guidance in use and interpretations (Gardner, 1996, as cited in Shearer 1996).

The experimental group consisted of IELTS candidates who attended in the art-integrated classroom and responded to the motivation questionnaire, which was designed by the researcher considering other reliable models of motivation questionnaire. This motivation questionnaire reflected the ideas, impressions, and feedback of IELTS candidates performing artistic reading tasks, and this questionnaire evaluated their motivation for using art-integrated instruction.

Furthermore, the present study the researcher designed visual reading artistic tasks for IELTS candidates considering the test format of the reading section of the IELTS exam. These visual Artistic tasks were developed according to Armstrong's (2009) definitions of visual artist tasks for reading comprehension. Furthermore, a professional artist and an IELTS expert supported the researcher in designing the tasks by providing the necessary guidances. They also supported the IELTS candidates to provide instruction for IELTS candidates on how to do these visual reading artistic-tasks accurately during the 8 weeks IELTS reading preparation course to achieve better results. IELTS candidates were assigned to do the visual reading artistic tasks both during the time of the class and as an after class project at home.

The researcher developed 6 important visual reading artistic tasks according to Armstrong's (2009) Definition of Visual Artistic tasks for reading comprehension. Other tasks are remodeled based on the book called “Multiple intelligences tasks and Activities” published in the USA by Cracchiolo. R & Smith, M. (2004) from teacher-created materials.

The designed visual artistic tasks for the reading section of IELTS are classified into two categories:

1. The visual artistic tasks designed for vocabulary learning
2. The visual Artistic task designed for Reading comprehension

These are six types of visual artistic tasks designed by the researcher for the reading section of the IELTS exam to be used as a treatment for the experimental group:

1. Visual artistic tasks for visualization, drawing, and “idea sketching “strategy to draw the key point, the main idea, the central theme of the whole passage, and every paragraph of the text being taught.
2. Visual artistic tasks for vocabulary learning through visualization and drawing.
3. Visual artistic tasks for improving scanning skills for reading: “true/ false, not given” test format.
4. Visual artistic tasks for supporting skimming strategy (time limited).
5. Visual artistic tasks for supporting skimming strategy (time unlimited)
6. Visual artistic tasks called “Picture metaphor” which is thinking about the key points and the main concept and linking them to a visual image.

3.4. Procedures

The 54 IELTS candidates who attended an IELTS reading preparation classroom participated in this study. This study had a control group and an experimental group, each consisting of 27 IELTS candidates.

The 27 IELTS candidates who participated in this study as an experimental group engaged in performing visual reading tasks including in-class and after-class art projects, twice a week for 90 minutes, including 30 minutes considered for performing in-class assignments and 60 minutes for doing artistic tasks as an after-class project during eight weeks IELTS reading course of study. An experienced art expert supported the researcher in designing the visual artistic reading tasks for

IELTS. The art expert also supervised participants while performing these visual artistic tasks for 30 minutes in the classroom, provided the necessary guidance to the IELTS candidates, and finally evaluated all the artistic assignments carried out by IELTS candidates. Student participation was voluntary for all the aspects of the research, including the pre-and post-tests and for both in-class and after-class art programs.

First, the IELTS reading comprehension test was administered to IELTS candidates as a pre-test for the control group as well as the experimental group. Participants must respond to the (40) reading comprehension questions after reading three texts, and they had (60) minutes to complete the test.

Second, at the end of the 8-week IELTS reading preparation course, an IELTS reading test was administered for both the control group and the experimental group as a post-test.

Third, participants took the MIDAS questionnaire in another session. In this study, the MIDAS scale in Persian translation form was utilized. Participants were informed briefly about the reliability of the MIDAS scale, the number of items, and the time allotted to fill out the questionnaire. Participants were informed that the questionnaire has the potential to measure seven types of intelligences separately, and this was new and interesting to them because almost all of the participants were not familiar with MI components, and this motivated them to respond to the MI questions. As suggested by Shearer (1996), who developed MIDAS, the participants asked to be fair to themselves, not to overrate or underrate themselves, and to describe themselves just as they were. They were promised to be informed of the MI score. The majority of the participants felt motivated enough to answer the MI questionnaire. After administering the MI test, they were asked many questions about how they should receive their scores and the time of giving the results.

The MIDAS questionnaire has 119 items, and it takes approximately 35-45 minutes for test takers to fill it out. The result of the MIDAS questionnaire was scored by the researcher according to the key answer provided by Shearer 1996. Finally, MI profiles were developed for participants in each intelligence and multiple intelligences.

Finally, a motivation questionnaire was administered to both groups consisting of IELTS students who attended the IELTS reading preparation course of study in which the art education program was employed and the control group the conventional method of teaching for the IELTS reading. The researcher compared the difference between the two groups in terms of their passion and motivation after performing visual artistic reading tasks by IELTS candidates for reading comprehension improvement.

Subtracting the number of absentees in administration sessions, 54 people completed the IELTS reading comprehension exam, the MI questionnaire, and the motivation questionnaire. Some students who provided incomplete answers or scored very high or low on the IELTS reading comprehension test were excluded.

3.5. Statistical Analysis

The following statistical analyses were carried out to fulfill the study's objectives:

1. *The descriptive analysis* of the two IELTS candidates' reading comprehension scores, including both pre-IELTS reading and post-IELTS reading scores and their Multiple intelligences scores and their motivation scores were performed to find the means, medians, ranges, and standard deviation to see whether the distribution of scores for each of the tests was normal.
2. For the first question, *non-parametric analysis* was performed to find out any difference among the IELTS reading comprehension mean scores of IELTS candidates in the

experimental group who received art education and those in the control group who received the traditional method of instruction.

3. For the second question, a *correlation analysis* was conducted to find the correlation between each of the IELTS candidates' intelligence as an independent variable in predicting the performance on IELTS reading comprehension as the dependent variable.
4. *A regression analysis* was conducted to discover which variables are the most effective for predicting IELTS candidates' performance in the reading comprehension section. IELTS candidates' reading comprehension performance was considered the dependent variable, and eight multiple intelligence scores were entered into the regression analysis as independent variables.
5. *Non-parametric analysis* was done to find out any difference among the IELTS reading comprehension mean motivation scores of IELTS candidates in the experimental group and in the control group who received the traditional method of instruction.
6. *A correlation analysis* was conducted to find the relationship between IELTS candidates' artistic reading task scores and their performance on the reading comprehension section of the IELTS exam in the experimental group.

Chapter 4. Data Analysis & Results

4.1 Introduction

Teaching and testing reading comprehension has always been the main concern of all language teachers in second/ foreign language learning contexts. There appears to be a critical problem with reading comprehension in that language learners may not be instructed for deep understanding since standardized achievement tests like IELTS or TOFEL measure ESL learners' comprehension by asking them to recall the information and routine knowledge using their memorization ability. Recently IELTS candidates have received low scores in the Reading section of the IELTS test. It may be due to the lack of IELTS candidates' insufficient vocabulary treasure or focus on using IELTS reading test-taking strategies and techniques to provide the correct answers in a short time instead of emphasizing comprehension of the text and long-lasting learning. It may be because of implementing inadequate teaching methods like the traditional method of instruction in IELTS Reading preparation classrooms. This research recommends using art education as a constructive and stimulating method of instruction to promote IELTS candidates' reading skills.

4.2. Descriptive Analysis of Research Variables

In the first step, the research indicates the descriptive statistics of research variables in the Table below. There is a control group (N=27) in which the traditional method of instruction for teaching IELTS reading skills was employed and an experimental group (N=27) in which art education was employed as a method of instruction for promoting IELTS reading skills for 12 weeks of IELTS reading preparation classrooms.

The variables in the current work consisted of the IELTS reading pre-test and IELTS reading post-test, Multiple Intelligence and Motivation scores of IELTS candidates in both the control and

experimental groups and artistic-task scores of the experimental group in which art integration occurred.

Table: 1: Research Variables' Descriptive Statistics

	N	Range	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Pre C	27	22	13	35	24.96	1.168	6.067
Post C	27	21	17	38	28.26	1.265	6.573
Motivation C	27	40	50	90	69.07	2.247	11.678
Pre E	27	17	15	32	24.89	.995	5.169
Post E	27	16	23	39	32.11	1.010	5.250
Motivation E	27	24	74	98	86.89	1.401	7.282
Musical C	27	45	35	80	55.67	2.228	11.576
Kinesthetic C	27	39	35	74	54.59	2.204	11.450
Mathematics C	27	25	30	55	41.59	1.449	7.531
Visual Spatial C	27	50	40	90	57.63	2.646	13.751
Linguistics C	27	35	35	70	54.15	1.996	10.369
Interpersonal C	27	38	42	80	59.63	2.007	10.430
Intrapersonal C	27	40	29	69	50.30	1.589	8.255
Naturalistic C	27	54	30	84	60.56	2.334	12.129
Control Post	27	21	17	38	28.26	1.265	6.573
Musical E	27	46	30	76	49.33	2.364	12.285
Kinesthetic E	27	45	46	91	65.44	2.083	10.821
Mathematics E	27	53	33	86	64.41	3.086	16.034
Visual Spatial E	27	43	41	84	66.22	2.284	11.866

Linguistics E	27	44	34	78	56.74	2.284	11.870
Interpersonal E	27	33	44	77	61.04	1.624	8.437
Intrapersonal E	27	40	40	80	61.63	2.114	10.987
Naturalistic E	27	57	24	81	53.74	3.059	15.893
Experimental Post	27	16	23	39	32.11	1.010	5.250
Art Tasks Scores	27	4.0	5.0	9.0	7.593	.1962	1.0194
Valid N (listwise)	27						

According to the data, which are presented in Table 1, it can see that the mean score of IELTS candidates in the IELTS Reading pre-test, as well as the IELTS Reading post-test within the control group, are achieved at 24.96 and (28.26) respectively. The mean scores of IELTS candidates in the IELTS Reading pre-test and the IELTS Reading post-test within the experimental group are achieved at (24.89) and (32.11), respectively, confirming that these two groups, regarding the proficiency level, were at the same level. However, after implementing Art-education in the experimental group, we can see a slight but significant improvement in the mean scores of IELTS candidates' reading-post tests. Integrating art and artistic reading tasks into IELTS reading preparation classrooms has positively impacted the promotion of IELTS candidates' reading skills.

The results indicate that the mean scores of IELTS candidates' motivation questionnaire in the control group are (69.07). In contrast, the mean scores of IELTS candidates' motivation survey in the experimental group have increased to (89.86). As a result, it can result that the motivation of IELTS candidates in the experimental group in which art integration was implemented for teaching IELTS reading skills has significantly increased. The participants in the experimental group have had positive attitudes toward art and using artistic tasks in the IELTS reading preparation classrooms, and they find it supportive and instructive.

In terms of investigating the index of dispersion, which happened in participants' scores of both groups, the highest dispersion in amplitude index is (63), which is high and ranges from 23 to 86. Regarding the standard deviation index, it can observe that the linguistic intelligence variable has the highest dispersion in the control group.

4.3. The Normality Test of The Data: Kolmogorov-Smirnov test

First, the data normality test was carried out to identify if to use the parametric or nonparametric statistic test. Then the research hypotheses were tested. According to the Kolmogorov-Smirnov test's outcomes, The null hypothesis is disproved when a significant value of certain variables is smaller compared to the error level (0.05), and the data distribution is not generally normal. As a result, nonparametric tests were used to measure the variables. Parametric inferential statistical tests can be used if the data distribution is normal.

Table 2: The Normality Test of the Data

	N	Normal Parameters ^{a, b}		Most Extreme Differences			Test Statistic	Asymp. Sig. (2-tailed)
		Mean	Std. Deviation	Absolute	Positive	Negative		
Pre C	27	24.96	6.067	0.182	0.182	-0.167	0.182	.022 ^c
Post C	27	28.26	6.573	0.179	0.171	-0.179	0.179	.026 ^c
Motivation C	27	69.07	11.678	0.172	0.172	-0.087	0.172	.039 ^c
Pre E	27	24.89	5.169	0.135	0.084	-0.135	0.135	.200 ^{c,d}
Post E	27	32.11	5.25	0.159	0.101	-0.159	0.159	.078 ^c
Motivation E	27	86.89	7.282	0.095	0.087	-0.095	0.095	.200 ^{c,d}
Musical C	27	55.67	11.576	0.155	0.155	-0.098	0.155	.095 ^c
Kinesthetic C	27	54.59	11.45	0.104	0.104	-0.091	0.104	.200 ^{c,d}
Mathematics C	27	41.59	7.531	0.176	0.176	-0.097	0.176	.031 ^c
Visual Spatial C	27	57.63	13.751	0.187	0.187	-0.149	0.187	.016 ^c
Linguistics C	27	54.15	10.369	0.087	0.081	-0.087	0.087	.200 ^{c,d}

Interpersonal C	27	59.63	10.43	0.113	0.113	-0.107	0.113	.200 ^{c,d}
Intrapersonal C	27	50.3	8.255	0.115	0.107	-0.115	0.115	.200 ^{c,d}
Naturalistic C	27	60.56	12.129	0.111	0.085	-0.111	0.111	.200 ^{c,d}
Control Post	27	28.26	6.573	0.179	0.171	-0.179	0.179	.026 ^c
Musical E	27	49.33	12.285	0.119	0.119	-0.084	0.119	.200 ^{c,d}
Linguistics E	27	56.74	11.87	0.15	0.15	-0.1	0.15	.121 ^c
Interpersonal E	27	61.04	8.437	0.193	0.134	-0.193	0.193	.011 ^c
Intrapersonal E	27	61.63	10.987	0.108	0.094	-0.108	0.108	.200 ^{c,d}

4.4. Results

4.4.1. The answer to research question one

At the end of the IELTS preparatory course of study, the performance of the control and experimental groups on the IELTS reading examinations was analyzed. The first research question of this study is:

1-Is there any difference between the performance of IELTS candidates in the IELTS exam reading comprehension section between the control group using the traditional method of instruction and the experimental group employing art education?

The first research question seeks to evaluate if the incorporating art-education impacted the IELTS candidates' performance in the IELTS reading exam through comparison of the mean scores of IELTS reading comprehension scores of experimental and control groups in the IELTS Reading pre-test and the post-test.

Table 3: The Mean Ranks of The IELTS candidates' scores in the IELTS Reading pre-test and post-test of the Control & Experimental Group

	Group	N	Mean Rank	Z	Asymp. Sig. (2-tailed)
Pre IELTS	Control	27	27.07		
	Experimental	27	27.93		
	Total	54		-.200	.842
Post IELTS	Control	27	22.74		
	Experimental	27	32.26		
	Total	54		-2.233	0.026

It can be observed that the average IELTS candidates' score in IELTS reading-pre-test in the control group is obtained (27.07), and this amount for the experimental group is (27.93). Therefore, it can be stated that both groups are at the same level of reading proficiency. The value of the (Z) statistic is calculated to be (-0.200), since the absolute (Z) value shows an amount less than the critical value of (1.96), it demonstrated that the observed coefficient is not significant. Also, the substantial value obtained (0.842) is greater compared to the error level of (0.05), confirming that the coefficient is insignificant. Therefore, it can conclude that there is no significant difference between the two groups' mean scores on the IELTS Reading pre-test.

It can be seen that the average rank of the IELTS candidates' reading posttest within the control group was (22.74) and the IELTS candidates' reading posttest's average rank in the experimental group was retrieved (32.26). The value of the (Z) value is (-2.323) which indicate the value has been higher than the threshold of (1.96) and is significant. In addition, the significance value was obtained at (0.026), which is smaller than the error level of (0.05), confirming the coefficient's significance.

As a result, it can state that, there is a significant difference between the performance of IELTS candidates in the reading section of the IELTS post-test exam between the control group and the experimental group. Due to the higher average value of the experimental group, it can be stated that this group in which art education was integrated had significantly better performance in the IELTS post-test reading section of the exam at the end of the IELTS reading preparation course of study.

The obtained results indicated that visual art project-based positively impacted the performance of IELTS candidates in the reading section of the IELTS exam, and incorporating visual arts like drawing and visualization tasks into IELTS reading preparation classroom resulted IELTS candidates to achieve higher scores in the reading comprehension part of the exam. Therefore, it can be stated that art-education could be considered a great foundation and efficient method of IELTS reading instruction since it has powerful potential in supporting IELTS candidates to promote their reading comprehension skills.

4.4.2. The answer to research question 2

3-Is there any relationship between MI components of IELTS candidates and their performance in the reading section of the IELTS exam between the control group using the traditional method of instruction and the experimental group employing art education?

The results of the correlation analysis between the Multiple intelligences of IELTS candidates and their scores in the reading section of the IELTS exam as post test are indicated in Table 4 and also in figure 1 belows:

Table 4: The Correlation of the IELTS candidates 'Multiple Intelligences and their scores in the IELTS Post-test Reading Exam of the Control & Experimental group

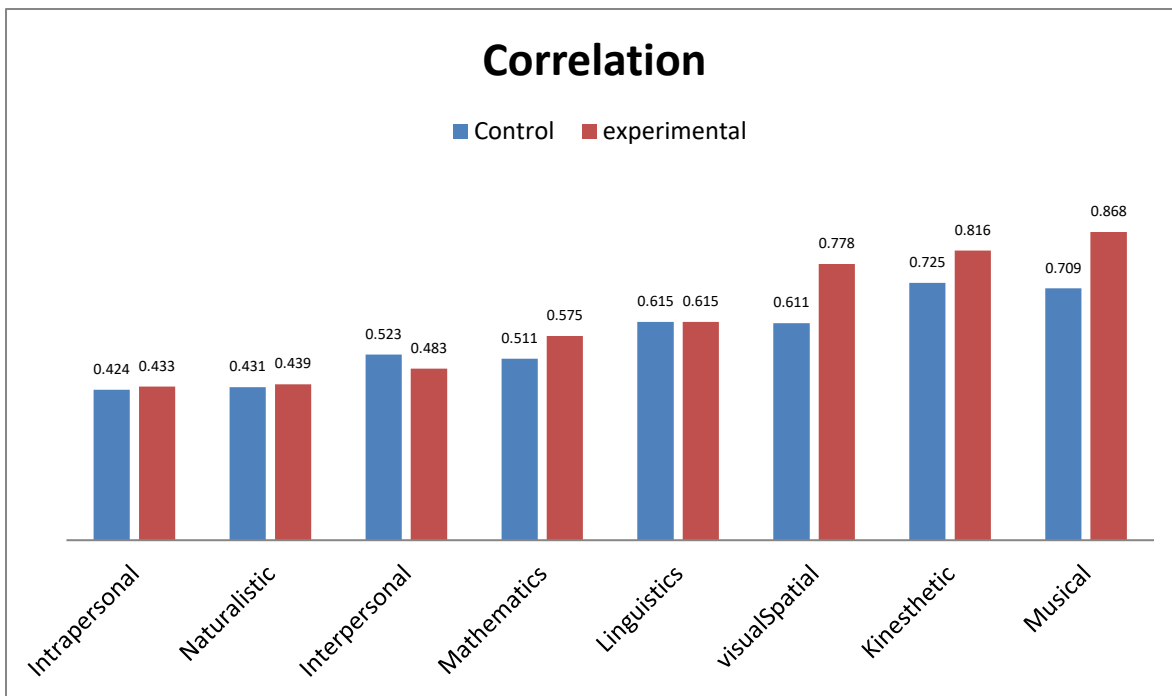
			Control Post	Experimental Post
Spearman's rho	Musical C	Correlation Coefficient	.709**	.868**
		Sig. (2-tailed)	.000	0.000
	Kinesthetic C	Correlation Coefficient	.725**	.816**
		Sig. (2-tailed)	.000	0.000
	Mathematics C	Correlation Coefficient	.511**	.575**
		Sig. (2-tailed)	.006	0.002
	VisualSpatial C	Correlation Coefficient	.611**	.778**
		Sig. (2-tailed)	.001	0.000
	Linguistics C	Correlation Coefficient	.615**	.615**
		Sig. (2-tailed)	.001	0.001
	Interpersonal C	Correlation Coefficient	.523**	.483*
		Sig. (2-tailed)	.005	0.011
	Intrapersonal C	Correlation Coefficient	.424*	.433*
		Sig. (2-tailed)	.028	0.024
	Naturalistic C	Correlation Coefficient	.431*	.439*
		Sig. (2-tailed)	.025	0.022

The findings of correlation analysis in table 4 indicate that the musical intelligence with correlation coefficient ($r=0.868$) and the kinesthetic intelligence with correlation coefficient ($r=0.816$), and after that, the visual spatial with ($r=0.778$) have the most contribution in the performance of IELTS candidates in the reading section of the IELTS exam as a post test in the experimental group.

The findings reveal that the musical intelligence with correlation coefficient ($r=0.709$) and the kinesthetic intelligence with correlation coefficient ($r=0.725$) have the highest relationship with the IELTS candidates' reading scores in the IELTS reading post test exam in the control group, and after that visual apatial with ($r=0.611$) and linguistic intelligence with ($r=0.615$) have strong relationship with participants' IELTS reading scores in the control group.

Figure (1) demonstrates the comparison between the findings of correlation analysis of the relationship between the IELTS candidates' Multiple Intelligences and their scores in the IELTS post-test reading exam in both the control and the experimental groups that presented in table 4:

Figure 1. The Correlation of the IELTS Candidates ' Multiple Intelligences Scores and their IELTS Reading Post-test scores of the Control & Experimental group



The correlation analysis outcomes demonstrate that musical intelligence with a correlation coefficient ($r=0.868$) and kinesthetic intelligence with a correlation coefficient ($r=0.816$) in the

experimental group (N=27) had a powerful relationship with IELTS candidates' performance in the reading section. The results confirmed that these two intelligence components had the highest and most critical impact on promoting IELTS candidates' performance in the reading section of the IELTS exam in the experimental group.

The results also indicated that musical intelligence with a correlation coefficient ($r=0.709$) and kinesthetic intelligence with the correlation coefficient amount ($r=0.725$) in the control group (N=27) had a strong relationship with IELTS candidates' performance in the reading section of the IELTS exam. It can conclude that musical and kinesthetic intelligence significantly improved IELTS candidates' reading scores in the control group.

After that, the visual-spatial intelligence in third place with a correlation coefficient ($r=0.778$) in the experimental group (N=27) and a correlation coefficient ($r=0.611$) in the control group (N=27) had a strong relationship with IELTS candidates' performance in the reading section of IELTS exam. It can be assumed that visual-spatial intelligence also significantly impacted IELTS candidates' performance in the IELTS reading exam.

In the fourth place, the linguistic intelligence with a correlation coefficient ($r=0.615$) in the experimental group (N=27) and the ($r=0.615$) in the control group (N=27) had a strong relationship with IELTS candidates' scores in the reading section of IELTS exam. This intelligence had an essential and significant impact on IELTS candidates' performance in the IELTS reading exam.

The mathematical intelligence with correlation coefficient ($r=0.575$) in the experimental group and the correlation coefficient ($r=0.511$) in the control group, indicated that it has a moderate relationship with IELTS candidates' performance in the IELTS exam's Reading portion.

The correlation analysis reveals that interpersonal intelligence with correlation coefficient ($r=0.483$) and naturalistic with ($r=0.499$) and intrapersonal with ($r=0.433$) intelligences correlation

in the experimental group has a weak relationship with the IELTS candidates' scores in the IELTS exam in the reading section. However, interpersonal intelligence with correlation coefficient ($r=0.523$) in the control group indicated that has a moderate relationship with the performance of IELTS candidates in the IELTS reading exam, and the naturalistic intelligence with correlation coefficient ($r=0.431$) and intrapersonal intelligence with ($r=0.424$) have a weak relationship with IELTS reading scores of test takers.

The most important conclusion can be inferred of the findings of the correlation analysis is that the existence of a strong relationship between the musical, kinesthetic, and visual-spatial intelligence components of IELTS candidates in both the experimental group ($N=27$) in which that art education employed, and the control group ($N=27$) in which the traditional method of instruction for teaching IELTS reading skills used confirms the significance and necessity of the employing of tasks and activities which foster these intelligence components in the IELTS reading preparation classrooms in the highest degree to enhance IELTS learners' reading comprehension skills.

4.4.3. The answer to research Question 3:

3. Is there any difference between the prediction power of MI components of IELTS candidates in their performance in the IELTS exam reading comprehension section between the control group using the traditional method of instruction and the experimental group employing art education?

The Table 5 shows the regression analysis findings for the control group that received the traditional method of instruction:

Table:5: The Regression Analysis for Prediction Power of IELTS Candidates' Multiple Intelligences in their Performance on the IELTS Reading post-test in the Control group

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	Musical C	.404	.080	.711	5.054	.000
	Kinesthetic C	.414	.079	.722	5.211	.000
	Mathematics C	.422	.153	.483	2.760	.011
	Visual Spatial C	.315	.072	.659	4.386	.000
	Linguistics C	.389	.100	.614	3.889	.001
	Interpersonal C	.349	.105	.554	3.328	.003
	Intrapersonal C	.319	.146	.401	2.190	.038
	Naturalistic C	.209	.100	.385	2.086	.047

The result of regression analysis indicates that musical intelligence with coefficient (B=0.711) and kinesthetic intelligence with coefficient (B=0.722) intelligences have the most contribution in the performance of the IELTS candidates in the IELTS post-test reading section. After that visual-spatial with coefficient (B= 0.659) and linguistics with coefficient (B=0.614) impacted significantly the IELTS reading post-test scores of test takers. Interpersonal intelligence with coefficient (B=0.554) has a moderate and significant role. Mathematical with coefficient (B=0.483) and intrapersonal with coefficient (B=0.401) play less important role in the IELTS reading -post-test performance of the control group. And naturalistic intelligence has a weak role in comparison with other multiple intelligences.

Table 6 demonstrates the regression analysis results for the experimental group that received the art-education method of teaching for IELTS preparation to evaluate which MI components has significant part in prediction of performance of the IELTS candidates in the IELTS reading post-test.

Table 6: The Regression Analysis for Prediction Power of IELTS Candidates' Multiple Intelligences in their Performance on IELTS Reading post-test in the Experimental group

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	Musical E	.360	.046	.843	7.842	.000
	Kinesthetic E	.399	.055	.822	7.225	.000
	Mathematics E	.189	.054	.576	3.528	.002
	visualSpatial E	.312	.063	.706	4.983	.000
	Linguistics E	.278	.069	.629	4.043	.000
	Interpersonal E	.273	.112	.439	2.445	.022
	Intrapersonal E	.187	.088	.391	2.127	.043
	Naturalistic E	.145	.059	.440	2.451	.022

Figure (2) reveals the comparison between the prediction power of Multiple Intelligences of IELTS candidates in their performance on the IELTS reading exam in both control and experimental groups:

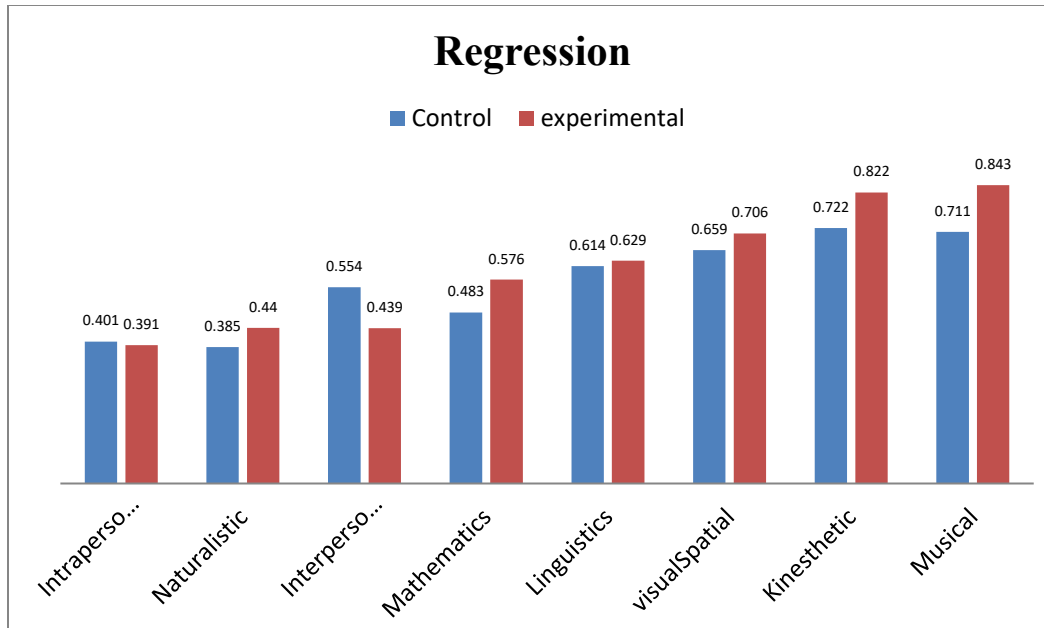


Figure 2. The Regression Analysis for Prediction Power of IELTS Candidates' Multiple Intelligences in their Performance on IELTS Reading Post-test for Control & Experimental group

The result of regression analysis indicated that all multiple intelligences positively affect IELTS candidates' performance in the reading section of the IELTS exam in both the control and experimental group. The results reveal that musical intelligence with the highest degree of standard coefficient ($B=+.843$) and kinesthetic intelligence with ($B=+.822$) make a significant unique contribution to the prediction performance in the experimental group, and after that, visual-spatial intelligence with a standard coefficient ($B=+.706$) and linguistic intelligence with a coefficient ($B=+.629$) have a significant impact.

Similarly, the results confirmed that musical and kinesthetic intelligence with the highest degree of standard coefficient ($B=+.711$) and ($B=+.722$) contribute the most to the prediction of IELTS candidates' performance in the control group. Moreover, after that, visual-spatial with a standard coefficient of ($B=+.659$) and linguistic intelligence with a coefficient of ($B=+.614$) play

a significant role in predicting the participants' performance in the IELTS reading exam in the control group, respectively.

It can be observed that mathematical with a coefficient ($B=+576$) in the experimental and interpersonal intelligence with a coefficient ($B=+554$) in the control group significantly contribute to the prediction of IELTS candidates' performance.

It can be seen that interpersonal intelligence with a standard coefficient ($B=+439$) and naturalistic intelligence with a standard coefficient ($B=+440$), and intrapersonal intelligence with a coefficient ($B=+391$) have the least contribution to the prediction of IELTS candidates' performance in IELTS Reading exam in the experimental group. Also, naturalistic intelligence with a standard coefficient ($B=+385$) and intrapersonal with a coefficient ($B=+401$) have the least contribution to the prediction performance of the control group.

4.4.4. The answer to research question 4

4-Is there any significant difference between the motivation scores of IELTS candidates in the control group using the traditional method and the experimental group employing art education?

It can see that the average motivation rank of IELTS candidates in the reading part of the IELTS exam in the control group was (17.02), and this amount for IELTS candidates in the experimental group was (37.98) and the value of the (Z) statistic is calculated to be (-4.908), which is greater than the critical value of (1.96), which indicates that the observed coefficient is significant. The significance value obtained at (0.000), which is smaller than the error level of (0.05), indicates the coefficient's significance.

Therefore, it can state that there is a significant difference between the motivation of IELTS candidates in the reading section of the IELTS exam between the control group and the

experimental group at the end of the IELTS Reading preparation course. Considering the higher average value of the motivation rank in the experimental group, the experimental group in which participants applied visual artistic tasks to improve their reading skills had higher motivation and more positive attitudes to art and using artistic tasks.

The results of the Mann-Whitney test for the control and experimental group are presented in Table 7.

Table 7: The Motivation Mean Ranks of the Control & Experimental group

	Group	N	Mean Rank	z	Asymp. Sig. (2-tailed)
	Control	27	17.02		
Motivation	Experimental	27	37.98		
	Total	54		-4.908	.000

One of the precious outcomes of this study is the increasing motivation of the experimental group from amount of 17.02 to the 37.98 that is great and remarkable. It can conclude that art intervention and implementing visual art reading project-based highly impacted IELTS learners' passion and motivation and their positive attitude toward art integration. The achieved outcome is valuable and inspiring for IELTS instructors and IELTS candidates. Art integration, especially drawing and visualization tasks indicated that are highly efficient strategy for IELTS learners in enhancing motivation and promoting IELTS Reading skills.

4.4.5. The answer to research question 5

5-Is there any relationship between IELTS candidates' Artistic task scores and their performance on the IELTS reading post-test in the experimental group employing art education?

The result of the correlation analysis between IELTS candidates' artistic tasks scores and their performance in the IELTS reading post-test in the experimental group are presented in Table 8:

The findings showed that there is a medium relationship ($r = .567$, $N = 27$, $p = .002$) between IELTS candidates' artistic task scores and their performance in IELTS reading post-tests.

Table 8: The Correlation Analysis of IELTS Candidates' Artistic tasks scores & their IELTS Reading Post-test scores

		Experimental Post	Art Tasks' scores
Spearman's rho	Experimental post IELTS	Correlation Coefficient	1.000
		Sig. (2-tailed)	.002
	Art Task score	Correlation Coefficient	1.000
		Sig. (2-tailed)	0.00

It appears that visual art integration, and especially drawing tasks in the IELTS reading preparation classrooms can be considered an effective strategy. Visual art education tends to promote IELTS reading project-based learning. Therefore, it seems that performing project based visual art in the classroom and as after class projects by the IELTS candidates is found to be very beneficial and constructive.

The medium role of implementing visual art in the IELTS reading curriculum is proved to be significant and visual art outcomes for IELTS candidates in terms of enhancing their IELTS candidates scores and to achieve better results in the reading section of IELTS exam is considerable. It seems that visual art project based could be an efficient method for IELTS instructors in teaching IELTS reading skills and vocabulary.

Chapter 5: Conclusions, Limitations of The Study & Further Research

5.1. Conclusion of the Objectives of the study

The conclusions of the present research's main objectives are presented in the following way:

A) The first objective of the present study was evaluating the impact of integrating art education within the IELTS reading preparation classrooms using visual Reading artistic tasks by IELTS candidates to explore the effectiveness of art education program on IELTS reading comprehension scores of IELTS candidates. To achieve this aim, a variety of artistic tasks developed by the researcher focusing on different aspects of IELTS reading comprehension texts, including:

a) Artistic tasks designed for teaching essential vocabulary for IELTS reading texts

b) Artistic tasks designed for IELTS reading comprehension texts

B) The second aim of the current research is to provide IELTS candidates' multiple intelligence profiles to evaluate which intelligence has a more significant part in performance on the reading section of the IELTS exam in both the control group using the traditional method of instruction and the experimental group employing art education.

C) The third aim of the present study is to evaluate the Art integration's impact on the motivation of IELTS candidates and decrease students' pressure and anxiety about IELTS exams in the IELTS reading preparation classrooms.

To fulfill the primary goals of the research, the researcher designed visual reading artistic tasks and activities and integrated them into the IELTS reading preparation classroom to assist IELTS candidates in comprehending the IELTS reading texts in an artistic, enjoyable, and stimulating way. The researcher designed the artistic tasks considering the IELTS test formats

and skimming and scanning test-taking strategies used by the IELTS candidates to provide the answer to the IELTS reading comprehension tests.

Integrating these artistic reading tasks is expected to improve IELTS candidates' vocabulary learning, deep understanding, and long-lasting learning of the IELTS candidates in the IELTS reading text, and this may result in their better performance on the reading section of the IELTS test. Furthermore, it has been expected that learning by performing artistic reading tasks enhances IELTS candidates' motivation and passion in the IELTS reading preparation classroom, which may result in a decline in the pressure and anxiety of the IELTS reading exam.

The significance of the study is that for the first time, art has been used in an academic setting for the promotion of the IELTS reading comprehension ability of IELTS candidates. One distinguishes this study from other studies is that in many studies, researchers have used art to improve reading comprehension skills in all grades and levels, but this study employed art for enhancing an important IELTS reading proficiency test.

5.2. Research Questions

5.2.1. The answer to Research question one

The results indicated that implementing the art education program in the IELTS reading preparation classroom resulted in IELTS candidates outperforming the Experimental group in the IELTS reading exam compared to the control group. The findings revealed that the experimental group's mean value was higher than the control group; it can be settled that this group in which art-education was implemented had significantly better performance in the IELTS reading exam. The result confirmed that utilizing visual reading artistic tasks such as drawing has been very encouraging and constructive in teaching reading skills to the IELTS candidates.

Visualization can be utilized internally and externally in the classroom. Internal visualization is the process of creating mental nonverbal representations of textual information in the mind. De Koning and van der Schoot (2013). A few of the exercises are teaching students to "make a picture on their mind" (Gambrell, 1982), having them construct mental images sentence by sentence (Clark et al., 1984), and having them read and construct pictures as though they were watching "TV in their mind" (Hibbing & Rankin-Erickson, 2003).

External visualization, on the other hand, was defined by De Koning & van der Schoot (2013) as nonverbal representations of textual content that can be found in the environment, such as a painting that changes textual content into a nonverbal representation. There are three different kinds of external visualizations: reader-constructed, other-constructed, and an intersection of the two. Other-constructed materials are those created by the instructor to help reading comprehension, whereas reader-constructed materials are those created by the reader to improve their knowledge after reading a text (Sulaiman & Masliza, 2021). The findings of the study indicate the positive impact of using internal visualization (creating mental images) and external visualization (drawing and sketching), which proved to be a great and efficient strategy for promoting IELTS candidates' reading skills based on the findings of research question one.

In this study, drawing and sketching strategies are used as a foundation, and other visualization tasks like picture metaphors are designed in the visual art reading project as well. The contribution of an art expert with the IELTS instructor made a clear path for the students to perform the tasks more precisely and motivated them to use their imagination to create more creative and qualified artistic tasks.

The positive findings and implications of using visual art for teaching IELTS reading comprehension skills in this study are enormous and considerable as it can be seen below:

a) Self-Expression: Drawing and sketching made IELTS candidates express their own perceptions of the meanings of the reading texts. Visualization has the ability to make a text more personal and meaningful to the readers. IELTS Learners expressed their conceptions by drawing images, figures, graphs, and diagrams. They are permitted to make notes beside the pictures and use numbers and signs to present and summarize the information. They used various colors, markers, and artistic instruments to make their drawings. They had their own presentation style, used their imagination, and were creative in creating their artwork. Females were very sensitive to the qualifications of their drawing tasks, and they asked several questions regarding the beauty, and perfection of their paintings, while males paid less attention to the quality of their paintings, and in that case, they preferred much simpler paintings with fewer details that were meaningful. IELTS candidates had freedom in selecting the conceptions and the ideas they wanted to present in their drawings, and they had their unique way of visual presentation of the main idea and the keywords of the text. The outcome of the implementation of the visual presentation was very interesting and outstanding in terms of the creation of creative artwork.

b) Imagination and Creativity: The creation of creative artworks was a great implication of using visual art reading projects for IELTS participants. The IELTS readers, in their drawings, used many interesting and fun animated characters to show the scientific information of the text and created innovative ways to display their conceptions in their paintings that were creative. Therefore, one of the important outcomes of the study is enhancing the creativity power of IELTS candidates.

Making IELTS candidates visualize and draw the core concept of the whole text, the main ideas of every paragraph support IELTS candidates whenever they face a new reading text; they will be able to visualize the main ideas faster by using imagination power. Therefore, performing these visual artistic reading tasks results in enhancing the visualization and imagination power of IELTS candidates, which is one of the important and considerable results of the study.

c) Drawing and Paintings Strategies: The positive outcomes of using drawing and paintings in increasing IELTS reading scores of IELTS candidates in the reading section of the IELTS exam proved that drawings can be considered a foundation and efficient strategy for teaching reading skills. These findings are completely compatible and consistent with the findings of previous research. Drawing has long been viewed by researchers as a meaning-making task (Papandreou, 2014) and as a learning strategy that learners may utilize to create visual representations that enhance understanding, according to drawing-to-learn investigators (Van Meter & Garner, 2005).

d) Using charts, graphs, graphic organizers, and Making notes: The findings of increased reading comprehension scores of IELTS test takers indicated that using various techniques in making drawings, like utilizing graphic organizers, was helpful and constructive in enhancing comprehension of the content. Charts, graphs, and graphic organizers are great ways to keep students' thoughts clear and organized. Students are able to make sketches and drawings alongside their organizers, which makes both sides of the brain work together. Memory happens when both sides of the brain are actively working. This is a good tool to help students remember and comprehend important vocabulary terms, especially if it is an area of difficulty (Gravelin & Maki 2013). IELTS candidates are also permitted to make notes beside or below the drawings to write the main ideas of their drawings to better memorize the concept. They are asked to write the vocabulary meaning or a notion related to the main meaning of the word when they create drawings

for the vocabulary. This technique seems to be instructive since through a combination of visual presentations and using linguistic items as descriptions; the IELTS learners managed to understand the contents better.

e) Highlighting Using Various Colors: Highlighting the main idea of every paragraph and the whole text using different colored markers was employed as an effective technique for supporting the skimming strategy of the IELTS candidates in the reading process. This technique supported IELTS test takers in the management of time since they could easily find the requested information in the highlighted sections to find the correct answers. The highlighting techniques were also helpful in supporting the scanning strategy in finding the information that existed in the text faster. It makes the IELTS test takers to be able to respond to the questions more easily and quickly.

f) Picture metaphor Strategy: The aim of the task “Picture metaphor” is to think of the key points of the main concept and link them to a visual image. Picture metaphor creates links between what the IELTS learner already understands and the information being given. The IELTS learners were asked to read the whole text and think of some key points and the main concept and link them to an image. They can find this image or images through the internet and copy and paste these images into the given boxes. Then make some notes related to the main concept and the key points at the bottom of every picture. The first Benefit of picture elicitation is that it gives participants more control as they select and justify their visual cues (Lapenta, 2012; Richard and Lahman, 2015; Bates et al., 2019). The second benefit of photo elicitation is that it makes candidates more interested and appealing (Frith and Harcourt, 2007; Lapenta, 2012). One major benefit is that it allows for diverse and maybe richer perspectives, According to Harper (2002), this is a result of the visual areas of the brain becoming active, and as a result, a higher degree of awareness is

evoked. The positive findings proved that the using the technique in the visual reading art project was effective in reading process.

g) Interaction and collaboration: The findings from observation of IELTS learners in the IELTS reading classrooms indicated that the level of interaction of IELTS candidates with the IELTS instructor and the other students in the form of peer talking and group discussions significantly increased. While making drawings, IELTS learners felt more easiness speaking with their classmates, exchanging their ideas, and explaining more about their paintings and their understandings and conceptions of the text. This provides IELTS instructor a space to be able to present more discussions and descriptions and speak about their presentations. It encouraged the IELTS instructor to be more creative and provided him with a good opportunity to teach new vocabulary, share more ideas about content, and deliver more meaning for the reading text.

h) Self-Confidence and Sharing the Ideas: Doing visual reading artistic tasks as individual projects naturally assists IELTS learners to be autonomous and self-centered, and creating creative artworks makes the IELTS learner feel more self-confident in the learning process.

Also, the emphasis of the IELTS instructor on drawing in focusing on the content of the main ideas instead of paying attention to the drawings' beauty decreased the anxiety and stress of the IELTS learners who were not very skillful in painting, and this made them feel more convenient and confident in making drawings and presenting and sharing their artistic works with other students.

i) Creating Artful Setting: The art-integrated program created an artful setting that was very exciting to the IELTS candidates since the drawing tasks are creative activities that break the routines, make the process of learning more enjoyable, and create a very pleasant and joyful environment for the learners. Particularly, the utilization of drawing tasks in the IELTS preparation

classroom facilitates the process of reading and vocabulary learning, which has changed the IELTS reading process into an entertaining and exciting process for the IELTS candidates.

j) Designing new Visual Reading Art projects: The positive outcomes of art integration in the IELTS reading classrooms can result in designing more innovative, instructive, and efficient visual reading project-based tasks by contribution and collaboration of the IELTS instructors and art experts for the IELTS learners as a great complement for implementation in the IELTS reading classrooms. These visual reading tasks can be extended to teach reading comprehension skills to candidates of TOFEL and other proficiency tests as well.

k) Using new technologies: The findings of positive impacts of the implementation of visual art in the IELTS academic settings may open new doors and create new tendencies to incorporate new technologies like using digital painting, digital pictures, 3D pictures, and new visual applications to support visual reading art projects. Animated characters in animation and movies are dynamic and attractive and can be used as visualization instruments to instruct scientific concepts as well.

l) IELTS Instructors as Creative Teachers: The positive findings of the study are encouraging for the IELTS instructors to appreciate art more and to employ art integration as an efficient method of instruction in the IELTS reading preparation classrooms. IELTS experts can be creative in using and combining a variety of new visual technologies appropriate to the intelligence level of language learners. This also may inspire other educators to employ art and artistic visual reading tasks as a great strategy for teaching reading comprehension skills.

m) Visual art Attraction for IELTS Candidates: The findings obtained through observation of the class environment clearly are representative of enhancing the passion and enthusiasm of the IELTS candidates in learning reading skills by visualization tasks, specifically drawing and

painting tasks in the art integrated group of the study. IELTS learners found performing visual reading artistic tasks very attractive and exciting. They really enjoyed making paintings using fun and interesting characters in their pictures. The atmosphere of class during art intervention time was very artistic, exciting, and joyful to the learners.

n) Visible Assessments: One of the significant findings of integrating visual art like drawing and sketching in this study was that it made all the mistakes in understanding the text clear and visible. The teacher can easily observe the misunderstanding of the meaning of the word or a concept and can make corrections in the meaning. Therefore, the gap in understanding can be tracked by using sketching as a visualization task. The findings indicated that drawing acted as an efficient strategy for the reading comprehension assessment of IELTS candidates.

o) Long-lasting learning and retention of content: Increasing the IELTS candidates' reading scores after eight weeks of the art intervention program proved that employing visual art may result in enhancing IELTS learners' deep understanding and retention of content as it was proved by previous research, which carried out by Hardiman (2011) that asserted that utilizing visual artistic tasks assists in long-lasting learning and retention of content. Hardiman (2011) clearly suggests that arts integration offers a highly effective way to enhance retention of content, and educators can benefit from using art since arts integration naturally incorporates activities that are likely to generate potential benefits for long-term memory. He recommended that teachers should "integrate the arts" into everyday instruction.

p) Visual art & Policymakers: The findings achieved from the art integration program for IELTS reading instruction are very positive and effective in terms of managers choosing teaching methods based on art intervention in their IELTS academic centers and recommending it to other language centers to generalize the implementation of art and artistic tasks and activities for

teaching reading skills to IELTS classes and other proficiency course of study like TOEFL and Cambridge preparation classes and in other language academic settings.

q) Problem-Solving Activity: The findings revealed that IELTS learners fairly completed the process of creating a picture as a problem-solving activity. Creating a picture from reading material, as part of external visualization, is a form of problem-solving activity, and this function emerges from the learning and sequential aspects of the reading process, during the process starting from reading to the production of the drawing, since IELTS learners must make multiple decisions before creating their final product, creating a picture is a method of problem-solving (Levstik & Barton, 2015).

Two different approaches to the reading process are discussed as follows:

Transactional theory, presented by Rosenblatt (2016), establishes two distinct perspectives on the reading experience. When reading a text, the primary goal of the reader is to find information for their own use. This approach can be more challenging because it requires the reader to focus on making connections and detecting hidden patterns in the text. This type of reading is when you are there to understand and process the entire text rather than to understand a particular meaning. Teachers assign tasks to students before, during, and after reading to make sure they don't miss anything. The aesthetic approach to reading focuses on the act of reading and the reader's personal journey by "reading." It can also focus on how the reader reacts after reading a text (Rosenblatt, 2020, p. 32).

The aesthetic reading experience is a way of reading that relies more on the senses. Interested readers often use more factual words and phrases to receive information, while aesthetically oriented readers conclude with signs, colors, figures, and images. Aesthetic reading is considered an active process that ends when reading a text, through which the reader can make a meaningful

transaction with the text (Rosenblatt, 2016). Reading should be as engaging and enjoyable as possible, which is why elements such as metaphors and similes are often used (Rosenblatt, 2020, p.33). Students are influenced by their previous experience and familiar cues when reading a text. We can validate this by explaining that when someone engages in this transaction with text, that person is engaging in a meaningful reading or dialogue experience. One of the most important aspects of the reading experience is how students feel. The aesthetic reading experience is a process that allows students to feel that the text speaks directly to them.

The IELTS reading texts' makeup, as well as the IELTS reading exam, consider both distinct approaches since the readers are required to focus on making connections and seeing patterns that are hidden in the text and recognize both the whole text's primary topic and specific meaning and then make their drawings related to these concepts. In this research, drawing tasks were utilized as an effective strategy that supported aesthetic reading. IELTS candidates used their imagination and visualization power while reading a text and sketched pictures related to the keywords and essential vocabulary of the text.

Drawings can assist learners in organizing scientific information and tying concepts to texts (Kostons & de Koning, 2017; Wu & Vegetables, 2019; Fiorella et al., 2020). However, not all drawing tasks encourage the development of connecting concepts between texts (De Bock et al., 2003; Leutner et al., 2009; Ainsworth et al., 2011). The rules might not be adequate to produce a complex mental image of a text, which is one reason why illustrations have an unpredictable impact on test performance (Leutner et al., 2009). In order to improve understanding, teaching should place a strong emphasis on developing a comprehensive image of the scientific phenomena discussed in the text (Fiorella et al., 2020).

Drawing has long been viewed by researchers as a meaning-making task (Papandreou, 2014) and as a learning strategy that learners may utilize to produce visual representations that enhance understanding, according to drawing-to-learn investigators (Van Meter & Garner, 2005). In addition, they gathered proof of drawing's beneficial impacts on learning, along with the few circumstances in which it does (Fiorella & Zhang, 2018). Drawing is a useful practice to advance understanding tracking and can also be employed to show understanding gaps (Wu & Rau, 2019).

In a more recent study, Theide and Wright et al. (2022) investigated the impact of drawing drafts on the comprehension precision of scientific texts. Rooney (2020) examined how a drawing affects the reading comprehension of third graders. Janneke van de Pol et al. (2020) looked at drawing and mapping to convert text into visual representations (e.g., creating diagrams, concept maps, or drawings). Becker (2020) examined the use of visual arts and art integration for children. Sukma, Rozimela, and Rtmanida (2019) examined the contribution of various kinds of tasks, including drawing tasks, to high school pupils' reading comprehension skills. Visualization along with drawing methods are utilized as a creative and attractive strategy to teach English to 5th graders (Gidoni & Rawan, 2018). McCulloch (2019) utilized a variety of art forms for elementary education in teaching reading comprehension. Tucker (2017) concentrated on how art teaching affected learners' reading proficiency. Cook (2016) examined the use of graphic novels in education. Mathieson (2015) evaluated that adding visual arts activities to reading lessons can affect the literacy skills of eighth to ninth graders. In all of the studies mentioned above, visualizing, drawing, and sketching assignments were found to be effective strategies for improving reading comprehension, vocabulary learning, and the retention of materials.

However, many converging studies have confirmed that using graphics to read text can simplify the reader's understanding of the text. Guo, Zhaung, and Wright (2020) stated that there

are no particular situations where graphics have been indicated to have an impact on learners' overall understanding of the text.

This study, for the first time, focused on using visualization, drawing, and sketching assignments for improving IELTS candidates' Reading comprehension skills, considering the test format of the IELTS exam and the skimming and scanning strategy used for the IELTS exam's reading comprehension section. The research's significance is that for the first time, art was used for an important English proficiency test like the IELTS reading exam. At the same time, visualization and drawing will be efficient methods for deep understanding and long-lasting learning, vocabulary learning, and retention of content.

5.2.2. The answer to Research question two

The findings indicated that all participants' multiple intelligences positively impacted the reading comprehension skills of the IELTS candidates. Musical with a correlation coefficient of ($r=0.709$) in the control group and a correlation coefficient of ($r=0.868$) in the experimental group, and Bodily/ kinesthetic with a correlation coefficient amount ($r=0.725$) in the control group and correlation coefficient ($r=0.816$) in the experimental group had the most contribution in increasing IELTS candidates' reading score. And visual/spatial in third place, with a correlation coefficient ($r=0.778$) in the experimental group and a correlation coefficient ($r=0.611$) in the control group, had the most contribution in enhancing IELTS candidates reading exams. After that, linguistic intelligence, with a correlation coefficient of ($r=0.615$) in the experimental group and ($r=0.615$) in the control group, has a significant role, logical/mathematical intelligence, with a correlation coefficient ($r=0.575$) in the experimental group and ($r=0.511$) with the control group has a moderate impact, and interpersonal and naturalistic, and intrapersonal intelligence plays a weak effect on IELTS candidates' performance in the IELTS reading exam, respectively.

The Multiple Intelligences Teaching (MIT) approach promotes using diverse methods to address differences. Furthermore, it states that a type of education tailored to each student's unique way of thinking can have positive effects on all individuals. The fact that artistic learning involves cognitive processes is one of this theory's most significant implications for visual arts education. Gardner stated, based on his own research, that learning through the arts is definitely a cognitive process (Zessoules et al., 1993) since pupils learn a variety of cognitive, affective, and psychomotor abilities.

Students use a variety of skills at once, including "analyzing real objects, acquiring and promoting opinions, comparison, inferring, regulation, social networking, evaluating claims, and problem-solving "When working on paintings or three-dimensional images. (Taspınar & Pazarlıoğlu, 2014). The skills they learn may vary depending on each student's unique characteristics. In visual arts classes, student differences are evident. It's possible that some pupils are more intelligent than others and receive more from their visual perceptions. Different intelligence types in learners may result in different visual perceptions. When engaged in learning processes that match their intelligence types, students with varying intelligence types such as linguistic, mathematical, spatial, kinaesthetic, and somatic intelligence are likely to express themselves more effectively via 3-D artwork and painting. It is anticipated that MIT of Gardner will enhance students' achievement in visual arts courses and positively impact the retention of the knowledge they acquire. (Taşpınar & Kaya, 2016).

Some of the implications of the findings of research question two are described here as follows:

Contribution of MI Approach: These results confirmed the educational value of integrating multiple intelligences theory along with the material of the IELTS reading preparation curriculum and indicate the considerable contributions of multiple intelligences and employing MI tasks and

activities in enhancing the reading comprehension skills of IELTS candidates. Employing the kinds of tasks and activities that foster the musical, kinesthetic, visual /spatial, and linguistic intelligence of IELTS candidates since these multiple intelligences must be more regarded and emphasized in the teaching of IELTS reading skills in the IELTS reading preparation classrooms.

Musical Intelligence Tasks Integration: The findings of the research may inspire IELTS instructors to add various kinds of music and musical rhythms for teaching vocabulary and the content of materials in the IELTS reading preparation classrooms. This music can be integrated with visual representations in the form of amusing movies, films, and animation in an exciting and entertaining way. IELTS educators can be very creative in incorporating musical devices and visual presentations. Linguistic items like new lexicon and vocabulary, essential for IELTS, can be taught this way. Most IELTS reading texts are descriptive and scientific; for example, a scientific process of producing a product or a scientific process that contains a circle of sequential procedures can be presented by integrating musical and visual representations and the essential linguistic items in the form of animation and animated movies which shows the process in a more exciting way.

Visual Tasks Integration: The findings can be encouraging for IELTS experts to use a variety of visual representations for the IELTS learners to enhance their reading skills. Like pictures in printed or digital forms, 3D pictures are very impressive and attractive. The movies, musical films, and animations include fun and entertaining animated characters to teach new words and scientific things in a creative and amusing way. The animations are very amusing and exciting to language learners and can facilitate the learning process and create a sense of joy and satisfaction.

Kinesthetic/Bodily Linguistic Tasks Integration: One of the remarkable outcomes of the current investigation is the critical role of kinesthetic intelligence in developing the comprehension ability of IELTS candidates. In order to foster this intelligence, IELTS experts can suggest role-playing

and acting opportunities to the IELTS learners. They can encourage students to use model-making to create a mime to explain something. Movement activities, sequencing movements, task manipulation, using concrete materials, and dancing can assist in developing this intelligence. Dancing to learn English can be an attractive and exciting option for IELTS learners to enjoy learning while listening to music.

Linguistic intelligence Tasks Integration: The findings of research question two also confirmed that linguistic intelligence is a basic intelligence and can be considered as a foundation in IELTS reading comprehension skills and must be regarded by IELTS instructors in the classrooms. Linguistic intelligence ability can be in both written and spoken form. Therefore, a diversity of tasks, activities, or tests can be utilized to foster linguistic intelligence in the IELTS academic settings. IELTS specialists can encourage students to speak on a topic of their interests and ask them to participate actively in the talking and conversations in the class. He can give assignments to the IELTS learners, like making an interesting oral presentation. They can also use interesting movies and films and exciting animations with subtitles in English to be attractive in teaching the essential IELTS vocabulary and concepts. Making a journal about a topic of interest can be more fun and entertaining for participants. IELTS instructors can select an IELTS reading topic and select some pictures and visual representations related to the topic and then encourage IELTS learners to describe the pictures and to write their interpretations and conceptions of visual representations.

As referred to in Chapter (2), many researchers evaluated the relationship between ESL/EFL learners' MI components and Reading comprehension at all grades and levels. For example, Tabrizi (2016) investigated the relationship between the multiple intelligences of Iranian EFL pupils and their reading comprehension skills, and the result confirmed the existence of a

meaningful correlation between the components of MI and students' reading comprehension scores. Verbal-linguistic intelligence had the most contribution, and after that, interpersonal and visual-spatial intelligence had important roles, respectively, which is consistent with the result obtained from the current study. However, intrapersonal and kinesthetic intelligence has not been discovered to be able to predict the reading comprehension ability of EFL learners, which is partly inconsistent with the findings of this study, which demonstrated and proved the critical impact of Kinesthetic intelligence of IELTS candidates in the reading comprehension part of the IELTS exam.

Celik and Sulyman (2019) investigated the effects of categorizing students according to their dominant multiple intelligences who engage in a variety of multiple intelligence-related activities on the development of their reading skills. The findings of this study reveal that the pupil's reading comprehension abilities have greatly increased in terms of perception and mental imagery.

Song and Lee (2019) examined the direction of reading instruction programs. The results showed the significance of interpersonal, spatial, and linguistic intelligence utilized for reading education improvement programs in schools.

In another study carried out by Sadeghi, Abusaeedi, and Jafarigohar (2019), they investigated the relationship between the student's reading proficiency personality traits and multiple intelligence. The results showed that, in contrast to other types of intelligence, such as intrapersonal, existential, naturalist, etc., there was only a positive and linear association between interpersonal intelligence and reading skills.

Suson, Barathate, et al. (2020) looked at how individualized instruction can improve basic reading comprehension skills. Four diverse instructional to guide reading instruction were

examined in the study. The results revealed that, regardless of the circumstances, learners were educated using all aspects of intelligence.

Gonzales and Diva (2021) evaluated the impact of eighth-grade students' multiple intelligence and their reading comprehension skills, and no significant relationship was found between the variables.

Shereen, A., and Abdullah. (2022) studied whether using activities built on the Multiple Intelligence (MI) Theory helped dyslexic primary-six students in their English reading comprehension, and the obtained results confirmed that implementation of the activities founded on the theory of Multiple intelligence for teaching students made considerable improvements in their reading comprehension skills.

The results of most of the previous studies have found that not all of the multiple intelligences but most of them have a significant relationship with the reading comprehension skills of ESL/EFL learners, which is closely consistent with the results of current research, which approves that most of the intelligences have a positive effect on IELTS reading comprehension of IELTS test takers in the reading section.

5.2.3. The answer to Research question three

The results indicated that musical intelligence with the highest degree of standard coefficient ($B=+.843$) in the experimental and ($B=+.711$) in the control group and kinesthetic intelligence with ($B=+.822$) in the experimental and ($B=+.722$) in the control group, made a significant unique contribution to the prediction performance, and after that, visual-spatial intelligence with a standard coefficient ($B=+.706$) in the experimental and ($B=+.659$) in the control group and linguistic intelligence with a coefficient ($B=+.629$) in the experimental and ($B=+.614$) in the control group played a significant role in predicting the participants' performance in the IELTS reading

section. It can be concluded that musical, kinesthetic, visual/spatial, and linguistic intelligence should be more regarded and emphasized in the IELTS reading preparation classrooms.

The implications of findings of research questions two and three are similar since the obtained results of the correlation analysis of the relationship between MI components in the performance of IELTS candidates in the reading section of the IELTS exam is consistent with the results of regression analysis for determining the prediction power of MI components in the IELTS candidates' reading scores. The findings revealed that musical and kinesthetic and visual /spatial and linguistic intelligence had the most contribution to the performances of IELTS candidates in the Reading part of the IELTS exam.

5.2.4. The answer to Research Question four

The findings of data analysis indicated that the average motivation rank of IELTS candidates in the reading part of the IELTS exam in the control group was (17.02), and this amount for IELTS candidates in the experimental group was (37.98) which confirmed that the amount significantly increased in the art integrated as the experimental group. One of the considerable and critical implications of the study is enhancing the motivation of IELTS learners significantly after the visual art intervention program in the IELTS Reading classrooms, which was considerable and remarkable.

Some of the important implications of the obtained results of the research question four are:

Increased Motivation and Positive Attitude Toward Art: The large majority of positive attitudes of IELTS candidates about art and integrating visual artistic tasks in the IELTS reading classrooms that reflected in the motivation questionnaire confirmed that the motivation of the IELTS learners in the traditional groups in which the art integration program was integrated significantly increased. The artful setting created an exciting and enjoyable setting for IELTS candidates where they experience more fun and entertaining visual reading artistic tasks. They enjoyed making

drawings and sketching and performing visualization tasks, and they found it very exciting and enjoyable and considered it a very instructive and useful strategy. IELTS candidates really loved making drawings and were encouraged to spend more time in the class to be engaged in diverse activities. The findings showed that when it came to passion and excitement for sketching, there was no difference between females and males. However, females were quite sensitive about the quality of artistic tasks and drawings and their perfection, and they asked much more questions about how to perform these artistic tasks efficiently in comparison with males.

Visual Art Project as Motivation Promoter: One of the important implications of the study is that IELTS instructors can maintain the interest of IELTS participants in the reading process and keep them motivated by assigning visual reading projects to do in class or as after-class projects. These artistic tasks can act as continuous learning promoters for the students, which can result in further Reading. Other researchers also confirmed that the visualization tasks do not stop at reading comprehension but promote further learning (de Leur, Van Boxtel & Wilschut, 2020).

Decreased Anxiety: Another implication is that visualization and drawing tasks decreased the IELTS candidates' anxiety and pressure of the IELTS exam since they experienced more fun and excitement during the learning process in the classroom. It was seen that the setting of the classroom changed into a student-centered situation, and integrating art and doing artistic tasks created a pleasant, fun, and entertaining environment for the IELTS learners.

Affective factors like reading motivation have recently attracted the attention of investigators (Akbari et al., 2019; Graham & Weiner, 2012; Zaccoletti et al., 2020). According to previous research (Afflerbach et al., 2013; Gambrell et al., 1996), reading requires motivation. Researchers continue to overwhelmingly concur that motivation is essential for learning a second language (Dörnyei & Csizér, 1998; Laufer & Hulstijn, 2001; Lovett et al., 2010) because they attract

students' attention and interest and encourage inquiry and participation. Visuals are an essential part of learning a second language (Card, 2012). Numerous researches demonstrated the way visual art improves pupils' motivation and L2 learning (Shier, 1990; Meyer, 2005; Eisner, 2009; Hickman, 2010; Card, 2012).

Visual art may foster an environment where students are more eager to ask, take risks, and be willing to make mistakes, two highly important language learning strategies. (O'Malley & Chamot, 1990). The integration of visual arts for language teaching aids elicits learners' emotional reactions (Card, 2012), reduces the affective controls (Card, 2012), and fosters the individual experience, which may improve pupils' attitudes and motivation regarding learning the target language (Eisner, 2009).

The research carried out by Hasby and Iswara (2019) was intended to determine "The Efficiency of "Memories and Drawing" to Students" motivation in reading comprehension." The results indicated that the "Memories and Draw" approach was effective in enhancing students'" motivation in reading comprehension, especially in reading descriptive text. So, it is advised for teachers to implement the Memories and Draw method to increase their students" passion for reading comprehension.

The use of drawing tasks in task-based language teaching to promote reading comprehension was studied by Sukma et al. in 2019. The outcome of the observation indicated that drawing was a very attractive activity for the students. Furthermore, drawing assignments gave students greater opportunities to be honest and creative in their reading comprehension, which sparked intense interest in and engagement with reading and executing activities.

Gidoni and Rajuan (2018) utilized the "drawing assignments" as a creative strategy for students in an EFL classroom, and they evaluated the whole-class discussion, interviews, and anonymous

feedback forms to inform about the attitude of fifth-graders about sketching techniques. The main conclusions indicated that "drawing" enhanced students' "motivation" and "engagement in EFL sessions," as well as "comprehension" and "retention of topic elements." drawing exercises are particularly well suited to EFL learning classes for intellectual and emotional reasons, according to research.

5.2.5. The answer to Research question five

Among the significant results of the research is a medium relationship between the IELTS candidates' artistic task scores and their IELTS reading post-test, which confirms that art plays a significant role in their reading skills improvement and confirms that drawing was a very practical and efficient strategy should be integrated into the IELTS reading preparation classrooms.

According to Gardner's theory of multiple intelligences, visual arts could provide pupils with the chance to be expressive, creative, visible, and critical thinkers, qualities that are not always evident in their major curriculum (Seidler, 2023).

The results show that drawing activity is an efficient strategy to teach IELTS reading comprehension skills because the majority of the IELTS applicants scored more than the average. Furthermore, according to the observation, it became clear that IELTS candidates' attitudes, beliefs, and interests are extremely positive to the implementation of the drawing task as an after-class art project.

The foundation is that drawing activity is not only expertise (Simmons, 2019) or merely a part of the visual arts, but it is a vital part of teaching and learning equally as significant as literacy and proficiency (Mitchell, 2007) (as cited in Rmalho & Silva, 2023). Along with being visually appealing, drawing assignments encourage pupils to read and comprehend texts with more

sincerity and inventiveness. As a result, reading and performing the tasks are motivated and passionately undertaken, according to Sukma et al. (2019).

Numerous researches evaluated the impact of drawing tasks to foster reading comprehension of EFL/ESL learners, as mentioned in Chapter 2, titled "Art-education."

Thiede et al. (2022) investigated the impact of using drawing activity on meta-comprehension precision of scientific texts for 5th-grade students. Becker (2020) carried out a literature-based, interdisciplinary teaching strategy for kindergarten through second-grade students. Rooney (2020) investigated how making drawings affects third-grade students' reading comprehension. In one more study, Janneke van de Pol et al. (2020) implemented drawing and mapping strategies for EFL/ESL students to turn text into visual representations (e.g., creating diagrams, concept maps, or drawings). Sukma (2019) explored the drawing tasks' usage through the application of task-based language education for instructing reading comprehension to 10th-grade undergraduates. McCulloch (2019) carried out arts-integration research for general classrooms elementary education teachers in teaching reading comprehension to EFL learners. Hasby and Iswara (2019) studied the efficiency of "Memories and Draw" for the student's motivation in Reading comprehension." Tucker (2017) focused on the effects of arts-based education on the reading achievement of fifth-grade pupils. Cook (2016) looked at how graphic novels are used in education. Adding visual arts activities to reading courses might affect students' literacy skills. Mathieson (2015) carried out action research to evaluate the impact of using visual art for eighth- to ninth-graders from a suburban elementary school for reading comprehension improvement. Jones (2014) employed portraits as a visual art form to advance students' reading abilities in ESL classes. Zemberova (2014) utilized the arts in EFL classes to advance pupils' literacy and language abilities. Gravalin and Maki (2013) investigated the visual arts' impact on third-grade kids' reading

comprehension and cognitive abilities. Sam and Rajan (2013) investigated how to use "graphic organizers" to improve middle school ESL students' "reading comprehension" abilities. Holdern (2012) conducted a research study in which he suggested using visual skills. Twenty-one juniors in high school and "Visual arts projects" were utilized to evaluate "upper-level reading comprehension skills."

In all the above-mentioned research, the outcome of the observational data and the Reading comprehension tests revealed that visual art and, specifically, drawing tasks were effective strategies in enhancing the reading comprehension skills of EFL/ESL students, resulting in enhancing scores of language learners in reading comprehension assessments and higher motivation and engagement of the students. Art integration was found to be very constructive and effective in promoting EFL/ESL learners' Reading comprehension skills for all grades and levels.

5.3. The Limitations of the study

The drawing task has promising and positive effects and promotes learners' reading comprehension skills. However, it raises some challenges for educators who want to apply this activity as a part of an IELTS instruction program for Reading comprehension. They can be described as follows.

The first challenge that the researcher, as a visual artistic task designer, dealt with was the preparation of drawing and visual tasks for IELTS reading texts in the context of the IELTS test. Drawing task is a particularly demanding task for instructors in terms of time, skill, and expertise required for preparation and designing the tasks. Therefore, especially in the context of IELTS, the researcher, as a task designer, must have a very close contribution to the IELTS instructor and an art expert for consulting and exchanging ideas about designing the most qualified and reliable tasks. The preparation of visual IELTS reading tasks includes topic selection, IELTS candidates'

worksheet forms, and time management. Also, it is required to design these tasks according to the previous definition of visual artistic tasks for reading as a researcher remodeled based on Armstrong's (2009) definitions of visual artistic tasks for reading.

Designing the worksheet format for IELTS candidates should be determined by the IELTS task designer. Although a worksheet that includes columns, graphics, or a template runs the danger of limiting students' originality, it does seem to have a significant impact in better inferencing the main concepts and main ideas of the text and organizing them. In contrast, a blank worksheet (one with no columns or a free design) allows pupils to be as innovative as possible, but there is a chance that they will draw extraneous images that are not relevant to the main ideas and go out of the topic. Therefore, the IELTS task designer must resolve these preparation-related issues before the sketching tasks are employed.

The second and most significant challenge for a task designer is time management because he is required to be able to estimate the amount of time needed by test takers to complete drawing tasks and other visual tasks, taking into account that some IELTS candidates have greater passion and interest in sketching and prefer to spend more time for making drawing tasks and completing visual tasks and paying more attention to the details, they prefer to put more time doing artistic tasks, while others prefer to make drawings in a simple form and they need a shorter time to perform it. The allocation of time to artistic tasks has always been a limiting factor for test designers. As a solution, in the present study, the researcher considers enough time for the IELTS candidates and gives them freedom in the way that they were permitted to do part of the drawing tasks during the time of the class. Also, they can perform other parts, such as after-class drawing assignments, to make candidates feel more convenient and joy in completing the visual artistic tasks and enjoy making drawing tasks and show more creativity.

The third and biggest challenge the researcher faced was that the IELTS reading test has some limitations in nature. The IELTS test takers need to read the text quickly, using skimming and scanning strategies to identify the requested information from the text in a very restricted time. Therefore, the researcher considered this matter and designed two types of artistic tasks to support the skimming and scanning strategy used by the candidates while reading the text, including tasks to be completed in a limited time and tasks to be done in an unlimited time to assist IELTS candidates in improving their skimming and scanning test-taking strategies.

The fourth challenge is associated with the student's attitudes toward performing the tasks, which is typically due to the sophistication or difficulty of the task. Fortunately, in the present study, most of the students were found interested and motivated to do artistic activities. However, in very few cases, males found it boring to spend more time on drawings. In addition, in rare cases, IELTS candidates were uninterested in starting drawing instantly, and they required more time to initiate the task; the reason might be that they were not visual learners and preferred alternative methods of learning in reading and comprehending a text.

For some students, it was difficult to display their paintings to their classmates since they felt not confident enough to show their artistic tasks to others; in that situation, the teacher emphasized to the IELTS candidates that their drawings would be evaluated based on how well they correspond with the text's material and aesthetic aspect of their drawing was not essential factor to be regarded and recommended to use efficient techniques in their paintings like using diagrams and graphs and even making some notes beside their drawings to present better the meaning of the vocabularies and the main idea of the reading text.

One of the important challenges of the IELTS expert was to keep IELTS candidates motivated enough to make the drawing activity an exciting and enjoyable task for the applicants. It's

important to keep them engaged in drawing and sketching both during the time of class and as an after-class art project.

The teacher explains and emphasizes the importance of precision in making drawings and doing visualization tasks by the IELTS candidates. The IELTS expert mainly involves students' imagination in the most appropriate way by providing the necessary guidance and instructions for the correct way of performing and completing the visual reading artistic tasks and making drawings by the IELTS candidates. These instructions are provided by the IELTS instructor both during the time of the class and also for how to perform the art projects as after-class assignments.

Finally, one of the limitations of the research was the scoring procedure of artistic task projects. It was quite difficult and complicated for an art expert to assign a fair and reasonable score to the artistic reading tasks. Since the nature of art is abstract and giving the score in some parts depends on the taste and perception of the artist, however, in the present study, the genre of the text was scientific, and relevance to the topic was considered the main parameter for scoring and the aesthetic aspects of painting was not a priority, but was determining and impressive in getting the higher score.

5.4. Suggestions for Future Research

Art education can be regarded as an efficient and constructive strategy for promoting and improving writing and listening. As can be observed, visualization and drawing of the main ideas and vocabulary were found to be very attractive and instructive for IELTS candidates, and many IELTS candidates demonstrated high interest and motivation in doing artistic tasks and activities, specifically drawing and painting. Therefore, it is suggested to consider Art- Education and, in particular, drawing and Paintings as critical and very constructive methods in teaching other IELTS language skills.

Future studies may also consider and examine the effect of implementing various aesthetic tasks and activities to improve IELTS candidates' language skills. A variety of Artistic tasks and activities can be designed by IELTS experts who are interested in art for teaching IELTS language skills like writing, listening, and speaking to IELTS candidates. Various types of artistic tasks and activities may have different potential to enhance IELTS learners' performance in each area of IELTS language skills, and it may have a very influence in increasing IELTS candidates' motivation and interest toward learning IELTS language skills.

Another less explored area is evaluating the impact of employing artistic tasks and activities on the IELTS candidates' self-esteem. By providing more opportunities for students to participate in collaborative artistic tasks actively, the self-esteem of language learners might be increased, which may result in better achievement in the EFL context.

Based on the outcome of current research, visualization and manipulating aesthetic visual tasks like drawing and painting highly increased the motivation level of IELTS candidates, and IELTS candidates will become more passionate in the reading comprehension process and vocabulary acquisition. Implementation of various artistic tasks might be an effective strategy in enhancing the motivation of IELTS candidates to study other IELTS language skills like writing, listening, and speaking.

Art education as an efficient and constructive educational system can be employed in the context of English language learning for TOEFL candidates as well. A variety of artistic tasks and activities can be designed for teaching and learning TOEFL language skills. TOEFL candidates can also experience a joyful and exciting classroom environment by integrating art and artistic tasks in the TOEFL classrooms.

In Addition, Art education can be regarded as a constructive and alternative method of teaching instead of the traditional method of instruction for language learners, specifically for candidates who are attending language preparation classrooms to prepare themselves for taking different Cambridge exams at all levels, Art education is an encouraging and a joyful method of instruction which create an enjoyable academic setting for language learners to study in an artful and fun and exciting atmosphere which helps them to experience lower stress and anxiety of IELTS exam and enjoy studying language skills in a more joyful and convenient environment.

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Appendix A

IELTS Reading comprehension Pre-test

Reading Passage 1

You should spend about **20 minutes** on Questions **1-13**, which are based on Reading **Passage 1** below.

The risks agriculture faces in developing countries

A

Two things distinguish food production from all other productive activities: first, every single person needs food each day and has a right to it; and second, it is hugely dependent on nature. These two unique aspects, one political, the other natural, make food production highly vulnerable and different from any other business. At the same time, cultural values are highly entrenched in food and agricultural systems worldwide.

B

Farmers everywhere face major risks, including extreme weather, long-term climate change, and price volatility in input and product markets. However, smallholder farmers in developing countries must in addition deal with adverse environments, both natural, in terms of soil quality, rainfall, etc., and human, in terms of infrastructure, financial systems, markets, knowledge and technology. Counter-intuitively, hunger is prevalent among many smallholder farmers in the developing world.

C

Participants in the online debate argued that our biggest challenge is to address the underlying causes of the agricultural system's inability to ensure sufficient food for all, and they identified as drivers of this problem our dependency on fossil fuels and unsupportive government policies.

D

On the question of mitigating the risks farmers face, most essayists called for greater state intervention. In his essay, Kanayo F. Nwanze, President of the international Fund for Agricultural Development, argued that governments can significantly reduce risks for farmers by providing basic services like roads to get produce more efficiently to markets, or water and food storage facilities to reduce losses. Sophia Murphy, senior advisor to the institute for Agriculture and Trade Policy, suggested that the procurement and holding of stocks by governments can also help mitigate wild swings in food prices by alleviating uncertainties about market supply.

E

Shenggen Fan, Director General of the international Food Policy Research institute. held up social safety nets and public welfare programs in Ethiopia, Brazil and Mexico as valuable ways to address poverty among farming families and reduce their vulnerability to agriculture shocks. However, some commentators responded that cash transfers to poor families do not necessarily translate into increased food security, as these programs do not always strengthen food production or raise incomes. Regarding state subsidies for agriculture, Rokeya Kabir, Executive Director of Bangladesh Nari Progati Sangha, commented in her essay that these 'have not compensated for the stranglehold exercised by private traders. In fact, studies show that sixty percent of beneficiaries of subsidies are not poor, but rich landowners and non-farmer traders.

F

Nwanze, Murphy and Fan argued that private risk management tools, like private insurance, commodity futures markets, and rural finance can help small-scale producers mitigate risk and allow for investment in improvements. Kabir warned that financial support schemes often encourage the adoption of high-input agricultural practices, which in the medium term may raise production costs beyond the value of their harvests. Murphy noted that when futures markets becomes excessively financialised they can contribute to short-term price volatility, which increases farmers' food insecurity. Many participants and commentators emphasized that greater transparency in markets is needed to mitigate the impact of volatility, and make evident whether adequate stocks and supplies are available. Others contended that agribusiness companies should be held responsible for paying for negative side effects.

G

Many essayists mentioned climate change and its consequences for small-scale agriculture. Fan explained that in addition to reducing crop yields, climate change increases the magnitude and the frequency of extreme weather events, which increase smallholder vulnerability. The growing unpredictability of weather patterns increases farmers' difficulty in managing weather-related risks. According to this author, one solution would be to develop crop varieties that are more resilient to new climate trends and extreme weather patterns. Accordingly, Pat Mooney, co-founder and executive director of the ETC Group, suggested that. 'if we are to survive climate change, we must adopt policies that let peasants diversify the plant and animal species and varieties/breeds that make up our menus'.

H

Some participating authors and commentators argued in favor of community-based and autonomous risk management strategies through collective action groups, co-operatives or producers' groups. such groups enhance market opportunities for small-scale producers, reduce marketing costs and synchronize buying and selling with seasonal price conditions. According to Murphy, 'collective action offers an important way for farmers to strengthen their political and economic bargaining power, and to reduce their business risks.' One commentator, Giel Ton, warned that collective action does not come as a free good. It takes time, effort and money to organize, build trust and to experiment. Others, like Marcel Vernooij and Marcel Beukeboom, suggested that in order to 'apply what we already know, all stakeholders, including business, government, scientists and civil society, must work together, starting at the beginning of the value chain.

I
Some participants explained that market price volatility is often worsened by the presence of intermediary purchasers who, taking advantage of farmers' vulnerability, dictate prices. One commentator suggested farmers can gain greater control over prices and minimize price volatility by selling directly to consumers. Similarly, Sonali Bisht, founder and advisor to the institute of Himalayan Environmental Research and Education (INHERE), India, wrote that community-supported agriculture, where consumers invest in local farmers by subscription and guarantee producers a fair price, is a risk-sharing model worth more attention. Direct food distribution systems not only encourage small-scale agriculture but also give consumers more control over the food they consume, she wrote.

Questions 1-3

Reading Passage 'I' has nine paragraphs (A-I)

Which paragraph contains the following information?

Write the correct letter, **A-I**, in boxes **1-3** on your answer sheet'

- 1 a reference to characteristics that only apply to food production
- 2 a reference to challenges faced only by farmers in certain parts of the world
- 3 a reference to difficulties in bringing about co-operation between farmers

Questions 4-9

Look at the following statements (Questions 4-9) and the list of people below.

Match each statement with the correct person, **A-G**

Write the correct letter, A-G in boxes 4-9 on your answer sheet, you may use any letter more than once.

- 4 Financial assistance from the government does not always go to the farmers who most need it.
5. Farmers can benefit from collaborating as a group.
- 6 Financial assistance from the government can improve the standard of living of Farmers
- 7 Farmers may be helped if there is financial input by the same individuals who buy from them.
- 8 Governments can help to reduce variation in prices.
9. Improvements to infrastructure can have a major impact on risk for farmers.

List of People

- A** Kanayo F. Nwanze
- B** Sophia Murphy
- C** Shenggen Fan
- D** Rokeya Kabir
- E** Pat Mooney
- F** Giel Ton

Questions 10 and 11

Choose TWO letters, **A-E**

Write the correct letters in boxes **10** and **11** on your answer sheet.

Which TWO problems are mentioned which affect farmers with small farms in developing countries?

- A** lack of demand for locally produced food
- B** lack of irrigation programs
- C** being unable to get insurance
- D** the effects of changing weather patterns
- E** having to sell their goods to intermediary buyers

Questions 12 and 13

Choose **Two** letters, **A-E**

Write the correct letters in boxes **12** and **13** on your answer sheet.

Which Two actions are recommended for improving conditions for farmers?

- A** reducing the size of food stocks
- B** attempting to ensure that prices rise at certain times of the year
- C** organizing co-operation between a wide range of interested parties
- D** encouraging consumers to take a financial stake in farming
- E** making customers aware of the reasons for changing food prices

Reading Passage 2

You should spend about 20 minutes on **questions 14-26**, which are based on Reading Passage 2 below.

Questions 14-20

Reading Passage 2 has seven paragraphs, **A-G**.

Choose the correct heading for each paragraph from the list of headings below.

Write the correct number, **i-viii**, in boxes **14-20** on your answer sheet

List of Headings

- i** Different accounts of the same journey
- ii** Bingham gains support
- iii** A common belief
- iv** The aim of the trip
- v** A dramatic description
- vi** A new route
- vii** Bingham publishes his theory
- viii** Bingham's lack of enthusiasm

- 14** Paragraph **A**
- 15** Paragraph **B**
- 16** Paragraph **C**
- 17** Paragraph **D**
- 18** Paragraph **E**
- 19** Paragraph **F**
- 20** Paragraph **G**

The Lost City

An explorer's encounter with the ruined city of Machu Picchu, the most famous icon of the Inca civilization

A

When the US explorer and academic Hiram Bingham arrived in South America in 1911, he was ready for what was to be the greatest achievement of his life: the exploration of the remote hinterland to the west of Cusco, the old capital of Inca empire in the Andes mountains of Peru. His goal was to locate the remains of a city called Vitcos, the last capital of the Inca civilization. Cusco lies on a high plateau at an elevation of more than 3,000 meters, and Bingham's plan was to descend from this plateau along the valley of the Urubamba River, which takes a circuitous down to the Amazon and passes through an area of dramatic canyons and mountain ranges.

B

When Bingham and his team set off down the Urubamba in late July, they had an advantage over travelers who had preceded them. A track had recently been cut through the valley canyon to enable rubber to be brought up by mules from the Jungle. Almost all previous travelers had left the river at Ollantaytambo and taken a high pass across the mountains to rejoin the river lower down, thereby cutting a substantial corner, but also therefore, never passing through the area around Machu Picchu.

C

On 24 July they were a few days into their descent of the valley. The day began slowly, with Bingham trying to arrange sufficient mules for the next stage of the trek. His companions showed no interest in accompanying him up the nearby hill to see some ruins that a local farmer, Melchor Arteaga, had told them about the night before. The morning was dull and damp, and Bingham also seems to have been less than keen on the prospect of climbing the hill. In his book *Lost City of the Incas*, he relates that he made the ascent without having the least expectation that he would find anything at the top.

D

Bingham writes about the approach in vivid style in his book. First, as he climbs up the hill, he describes the ever-present possibility of deadly snakes, 'capable of making considerable springs when in pursuit of their prey'; not that he sees any. Then there's a sense of mounting discovery as he comes across great sweeps of terraces, then a mausoleum, followed by monumental staircases and, finally, the grand ceremonial buildings of Machu Picchu." It seemed like an unbelievable dream.... the sight held me spellbound...he wrote.

E

We should remember, however that *Lost City of the Incas* is a work of hindsight, not written until 1948, many years after his journey. His journal entries of the time reveal a much more gradual appreciation of his achievement. He spent the afternoon at the ruins noting down the dimensions of some buildings, then descended and rejoined his companions, to whom he seems to have said little about his discovery. At this stage, Bingham didn't realize the extent or the importance of the site, nor did he realize what use he could make of the discovery.

F

One question that has perplexed visitors, historians and archaeologists alike ever since Bingham, is why the site seems to have been abandoned before the Spanish Conquest. There are no references to it by any of Spanish chroniclers- and if they had known of its existence so close to Cusco they would certainly have come in search of gold. An idea which has gained wide acceptance over the past few years is that Machu Picchu was a Moya, a country estate built by Inca emperor to escape the cold winter of Cusco, where the elite could enjoy monumental architecture and spectacular views. Furthermore, the particular architecture of Machu Picchu suggests that it was constructed at the time of the greatest of all the Incas, the emperor Pachacuti (c. 1438-71). By custom, Pachacuti's descendants built other similar estates for their own use, and so Machu Picchu would have been abandoned after his death, some 50 years before the Spanish Conquest.

Questions 21-24

Do the following statements agree with the information given in Reading passage 2?

In boxes 21-24 on your answer sheet, write

- TRUE** if the statement agrees with the information
FALSE if the statement contradicts with the information
NOT GIVEN if there is no information on this

- 21** Bingham went to south America in search of an Inca city.
22 Bingham chose a particular route down the Urubamba valley because it was the Most common route used by travelers.
23 Bingham understood the significance of Macho Picchu as soon as he saw it.
24 Bingham returned to Macho Picchu in order to find evidence to support his theory.

Question 25-26

Complete the sentences below

Choose **One Word Only** from the passage for each answer.

Write your answers in boxes 25-26 on your answer sheet.

- 25** The track that took Bingham down the Urubamba valley had been created the transportation of.....
26 Bingham found out about the ruins of Machu Picchu from a.....in the Urubamba valley.

Reading Passage 3

You should spend about **20 minutes** on **Questions 27-40**, which are based Passage on Reading 3 below.

The Benefits of Being Bilingual

A

According to the latest figures, the majority of the world's population is now bilingual Or multilingual, having grown up speaking two or more languages. In the past, such to be.at a disadvantage compared with their monolingual peers.

Over the past few decades, however, technological advances nave allowed researchers to look more deeply at how bilingualism interacts with and changes the cognitive and neurological systems, thereby identifying several clear benefits of being bilingual.

B

Research shows that when a bilingual person uses one language, the other is active at the same time. when we hear a word, we don't hear the entire word all at once; the sounds arrive in sequential order. Long before the word is finished, the brain language system begins to guess what that word might be. If you hear, 'can', you will likely activate words like," candy", and 'candle' as well, at least during the earlier stages of word recognition. For 'bilingual people, this activation is not limited to a single language; auditory input activities corresponding words regardless of the language to which they belong. Some of the most compelling evidence for this phenomenon, called, 'language co-activation', comes from studying eye movements. A Russian-English bilingual asked to pick up a marker from a set of objects would look more at a stamp than someone who doesn't know Russian, because the Russian word for "stamp", 'marka', sounds like the English word he or she heard, 'marker'. In cases like this, 'Language co-activation' occurs because what the listener hears could map onto words in either language.

C

Having to deal with this persistent linguistic competition can result in difficulties, however. For instance, knowing more than one language can cause speakers to name pictures more slowly, and can increase 'tip of the tongue states'. When you can almost, but not quite, bring a word to mind. As a result, the constant juggling of two languages create a need to control how much a person accesses a language at any given a language time. For this reason, bilingual people often perform on better on tasks that require conflict management. In the classic Stroop Task, people see a word and are asked to name the color of the word's font. When the color and the word match (i.e., the word 'red' printed in red), people correctly name the color more quickly than when the color and the word don't match. (i.e., the word 'red' printed in blue). This occurs because the word itself ('red') and its font color (blue) conflict. Bilingual people often excel at tasks such as this, which tap into the ability to ignore competing perceptual information and focus on the relevant aspects of the input. Bilinguals are also better at switching between two tasks; for example, when bilinguals have to switch from categorizing objects by color (red or green) to categorizing them by shape (circle or triangle), they do so more quickly than monolingual people, reflecting better cognitive control when having to make rapid changes of strategy.

D

It also seems that the neurological roots of the bilingual advantage extend to brain Areas more traditionally associated with sensory processing. When monolingual And bilingual adolescents listen to simple sounds without any intervening background noise, they show highly similar brain stem responses. When researchers play the same sound to both groups in the presence of background noise, however, the bilingual listeners' neural response is considerably larger, reflecting better encoding of the sound's fundamental frequency, a feature of sound closely related to pitch perception.

E

Such improvements in cognitive and sensory processing may help a bilingual Person to process information in the environment, and help explain why bilingual adults acquire third language better than monolingual adults master a second language. This advantage may be rooted in the skill of focusing on information about the new language while reducing interference from the languages they already know.

F

Research also indicates that bilingual experience may help to keep the cognitive mechanisms sharp by recruiting alternate brain networks to compensate for those that become damaged during aging. Older bilinguals enjoy improved memory relative to monolingual people, which can lead to real- world health benefits. In a study of over 200 patients with Alzheimer's disease, a degenerative brain disease, bilingual patients reported showing initial symptoms of the disease an average of five years later than monolingual patients. In a fellow- up study, researchers compared the brain of bilingual and monolingual patients matched on the severity of Alzheimer's symptoms. Surprisingly, the bilinguals' brains and more physical signs of disease than their monolingual counterparts, even though their outward behavior and abilities were the same. If the brain is an engine, bilingualism may help it to go farther on the same amount of fuel.

G

Furthermore, the benefits associated with bilingual experience seem to start very early. In one study, researchers taught seven-month-old babies growing up in mono lingual or bilingual homes that when they heard a tinkling sound, a puppet appeared on one side of screen. Halfway through the study, the puppet began appearing on the opposite side of the screen. In order to get a reward, the infants had to adjust the rule they'd learned; only the bilingual babies were able to successfully learn the new rule. This suggests that for very young children, as well as for older people, navigating a multilingual environment imparts advantages that transfer far beyond language.

Question 27-31

Complete the table below.

Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

Write your answer in boxes **27-31** on your answer sheet.

Test	Findings
Observing the 27 of Russian-English bilingual people when asked to select certain objects.	Bilingual people engage both languages simultaneously: a mechanism known as 28
A test called the 29, focusing on naming colors.	Bilingual people are more able to handle tasks involving a skill called 30
A test involving switching between tasks	When changing strategies, bilingual people have superior 31

Questions 32-36

Do the following statements agree with the claims of the writer in **Reading Passage 3**?

In boxes **32-36** on your answer sheet, write

- Yes** if the statement agrees with the claims of the writer
- NO** if the statement contradicts the claims of the writer
- NOT GIVEN** if it is impossible to say what the writer thinks about this

- 32** Attitudes towards bilingualism have changed in recent years.
- 33** Bilingual people are better than monolingual people at guessing correctly what words are before they are finished.
- 34** Bilingual people consistently name images faster than monolingual people.
- 35** Bilingual people's brains process single sounds more efficiently than monolingual people in all situations.
- 36** Fewer bilingual people than monolingual people suffer from brain disease in old age.

Questions 37-40

Reading Passage 3 has seven paragraphs, **A_G**.

Which paragraph contains the following information?

Write the correct letter, **A-G**, in boxes **37-40** on your answer sheet.

- 37** an example of how bilingual and monolingual people's brains respond differently to a certain type of non-verbal auditory input
- 38** a demonstration of how a bilingual upbringing has benefits even before we learn to speak
- 39** a description of the process by which people identify words that they hear
- 40** reference to some negative consequences of being bilingual

Appendix B:

IELTS Reading Post-test

Reading Passage 1

Flying tortoises

An airborne reintroduction program has helped conservationists take significant steps to protect the endangered Galapagos tortoise.

A

Forests of spiny cacti cover much of the uneven lava plains that separate the interior of the Galapagos Island of Isabela from the Pacific Ocean. With its five distinct volcanoes, the island resembles a lunar landscape. Only the thick vegetation at the skirt of the often cloud-covered peak of Sierra Negra offers respite from the barren terrain below. This inhospitable environment is home to the giant Galapagos tortoise. Sometime after the Galapagos' birth, around five million years ago, the islands were colonized by one or more tortoises from mainland South America. As these ancestral tortoises settled on the individual islands, the different populations adapted to their unique environments, giving rise to at least 14 different subspecies. Island life agreed with them. In the absence of significant predators, they grew to become the largest and longest-living tortoises on the planet, weighing more than 400 kilograms, occasionally exceeding 1.8 meters in length and living for more than a century.

B

Before human arrival, the archipelago's tortoises numbered in the hundreds of thousands. From the 17th century onwards, pirates took a few on board for food, but the arrival of whaling ships in the 1790s saw this exploitation grow exponentially. Relatively immobile and capable of surviving for months without food or water, the tortoises were taken on board these ships to act as food supplies during long ocean passages. Sometimes, their bodies were processed into high grade oil. In total, an estimated 200,000 animals were taken from the archipelago before the 20th century. This historical exploitation was then exacerbated when settlers came to the islands. They hunted the tortoises and destroyed their habitat to clear land for agriculture. They also introduced alien species - ranging from cattle, pigs, goats, rats and dogs to plants and ants - that either prey on the eggs and young tortoises or damage or destroy their habitat.

C

Today, only 11 of the original subspecies survive and of these, several are highly endangered. In 1989, work began on a tortoise-breeding center just outside the town of Puerto Villamil on Isabela, dedicated to protecting the island's tortoise populations. The center's captive-breeding program proved to be extremely successful, and it eventually had to deal with an overpopulation problem.

D

The problem was also a pressing one. Captive-bred tortoises can't be reintroduced into the wild until they're at least five years old and weigh at least 4.5 kilograms, at which point their size and weight - and their hardened shells - are sufficient to protect them from predators. But if people wait too long after that point, the tortoises eventually become too large to transport.

E

For years, repatriation efforts were carried out in small numbers, with the tortoises carried on the backs of men over weeks of long, treacherous hikes along narrow trails. But in November 2010, the environmentalist and Galapagos National Park liaison officer Godfrey Merlin, a visiting private motor yacht captain and a helicopter pilot gathered around a table in a small café in Puerto Ayora on the island of Santa Cruz to work out more ambitious reintroduction. The aim was to use a helicopter to move 300 of the breeding center's tortoises to various locations close to Sierra Negra.

F

This unprecedented effort was made possible by the owners of the 67-metre yacht White Cloud, who provided the Galapagos National Park with free use of their helicopter and its experienced pilot, as well as the logistical support of the yacht, its captain and crew. Originally an air ambulance, the yacht's helicopter has a rear double door and a large internal space that's well suited for cargo, so a custom crate was designed to hold up to 33 tortoises with a total weight of about 150 kilograms. This weight, together with that of the fuel, pilot and four crew, approached the helicopter's maximum payload, and there were times when it was clearly right on the edge of the helicopter's capabilities. During a period of three days, a group of volunteers from the breeding center worked around the clock to prepare the young tortoises for transport. Meanwhile, park wardens, dropped off ahead of time in remote locations, cleared landing sites within the thick brush, cacti and lava rocks.

G

Upon their release, the juvenile tortoises quickly spread out over their ancestral territory investigating their new surroundings and feeding on the vegetation. Eventually, one tiny tortoise came across a fully grown giant who had been lumbering around the island for around a hundred years. The two stood side by side, a powerful symbol of the regeneration of an ancient species.

Questions 8-73

Complete the notes below.

Choose **ONE WORD ONLY** from the passage for each answer

Write your answers in boxes **8-13** on your answer sheet.

The decline of the Galapagos tortoise

- Originally from mainland South America
- Numbers on Galapagos islands increased, due to lack of predators
- 17th century: small numbers taken onto ships used by **8**.....

- 1790s: very large numbers taken onto whaling ships, kept for 9..... and also used to produce **10**
- Hunted by **11**.....on the islands.
- Habitat destruction: for the establishment of agriculture and by various **12**..... not native to the islands, which also fed on baby tortoises and tortoises **13**.....

Reading Passage 2

You should spend about **20 minutes** on **questions 14-26**, which are based on Reading Passage 2.

The Intersection of Health science and Geography

A

While many diseases that affect humans have been eradicated due to improvements in vaccinations and the availability of healthcare, there are still areas around the world where certain health issues are more prevalent. In a world that is far more globalized than ever before, people come into contact with one another through travel and living closer and closer to each other. As a result, super-viruses and other infections resistant to antibiotics are becoming more and more common.

B

Geography can often play a very large role in the health concerns of certain populations. For instance, depending on where you live, you will not have the same health concerns as someone who lives in a different geographical region. Perhaps one of the most obvious examples of this idea is malaria-prone areas, which are usually tropical regions that foster a warm and damp environment in which the mosquitos that can give people this disease can grow. Malaria is much less of a problem in high-altitude deserts, for instance.

C

In some countries, geographical factors influence the health and well-being of the population in very obvious ways. In many large cities, the wind is not strong enough to clear the air of the massive amounts of smog and pollution that cause asthma, lung problems, eyesight issues and more in the people who live there. Part of the problem is, of course, the massive number of cars being driven, in addition to factories that run on coal power. The rapid industrialization of some countries in recent years has also led to the cutting down of forests to allow for the expansion of big cities, which makes it even harder to fight the pollution with the fresh air that is produced by plants.

D

It is in situations like these that the field of health geography comes into its own. It is an increasingly important area of study in a world where diseases like polio are re-emerging, respiratory diseases continue to spread, and malaria-prone areas are still fighting to find a better cure. Health geography is the combination of, on **the** one hand, knowledge regarding geography and methods used to analyze and interpret geographical information, and on the other, the study of health, diseases and healthcare practices around the world. The aim of this hybrid science is to create solutions for common geography-based health problems' While people will always be prone to illness, the study of how geography affects our health could lead to the eradication of certain illnesses, and the prevention of others in the future. By understanding why and how we get sick, we can change the way we treat illness and disease specific to certain geographical locations

E

The geography of disease and health analyses the frequency with which certain diseases appear in different parts of the world, and overlays the data with the geography of the region, to see if there could be a correlation between the two. Health geographers also study factors that could make certain individuals or a population more likely to be taken ill with a specific health concern or disease, as compared with the population of another area. Health geographers in this field are usually trained as healthcare workers, and have an understanding of basic epidemiology as it relates to the spread of diseases among the population.

F

Researchers study the interactions between humans and their environment that could lead to illness (such as asthma in places with high levels of pollution) and work to create a clear way of categorizing illnesses, diseases and epidemics into local and global scales. Health geographers can map the spread of illnesses and attempt to identify the reasons behind an increase or decrease in illnesses, as they work to find a way to halt the further spread or re-emergence of diseases in vulnerable populations.

G

The second subcategory of health geography is the geography of healthcare provision. This group studies the availability (or lack thereof) of healthcare resources to individuals and populations around the world. In both developed and developing nations there is often a very large discrepancy between the options available to people in different social classes, income brackets, and levels of education. Individuals working in the area of the geography of healthcare provision attempt to assess the levels of healthcare in the area (for instance, it may be very difficult for people to get medical attention because there is a mountain between their village and the nearest hospital). These researchers are on the frontline of making recommendations regarding policy to international organizations, local government bodies and others.

H

The field of health geography is often overlooked, but it constitutes a huge area of need in the fields of geography and healthcare. If we can understand how geography affects our health no matter where in the world we are located, we can better treat disease, prevent illness, and keep people safe and well.

Reading passage 2 has eight sections, **A-H**.

Which paragraph contains the following information?

Write the correct letter **A-H**, in boxes **14-19** on your answer sheet.

You may use any letter more than once.

- 14** an acceptance that not all diseases can be totally eliminated
- 15** examples of physical conditions caused by human behavior
- 16** a reference to classifying diseases on the basis of how geographically far they extend
- 17** reasons why the level of access to healthcare can vary within a country
- 18** a description of health geography as a mixture of different academic fields

19 a description of the type of area where a particular illness is rare

Questions 20- 26

Complete the sentences below.

choose **ONE WORD ONLY** from the passage for each answer.

- 20** Certain diseases have disappeared, thanks to better.....and healthcare.
- 21** Because there is more contact between people..... are losing their usefulness.
- 22** Disease-causing..... are most likely to be found in hot, damp regions.
- 23** One cause of pollution is..... that burn a particular fuel,
- 24** The growth of cities often has an impact on nearby.....
- 25**is one disease that is growing after having been eradicated.
- 26** A physical barrier such as a.....can prevent people from reaching a hospital.

Reading Passage 3

You should spend about **20 minutes** on Questions **27-40**, which are based on Reading Passage 3.

Music and the emotions

Neuroscientist Jonah Lehrer considers the emotional power of music

A

Why does music make us fool? On the one hand, music is a purely abstract art form, devoid of language or explicit ideas. And yet, even though music says little, it still manages to touch us deeply. When listening to our favorite songs, our body betrays all the symptoms of emotional arousal. The pupils in our eyes dilate, our pulse and blood pressure rise, the electrical conductance of our skin is lowered, and the cerebellum, a brain region associated with bodily movement, becomes strangely active. Blood is even re-directed to the muscles in our legs. In other words, sound stirs us at our biological roots.

B

A recent paper in Nature Neuroscience by a research team in Montreal, Canada, marks an important step in revealing the precise underpinnings of 'the potent pleasurable stimulus' that is music. Although the study involves plenty of fancy technology, including functional magnetic resonance imaging (fMRI) and ligand-based positron emission

tomography (PET) scanning, the experiment itself was rather straightforward. After screening 217 individuals who responded to advertisements requesting people who experience 'chills' to instrumental music, the scientists narrowed down the subject pool to ten. They then asked the subjects to bring in their playlist of favorite songs-virtually every genre was represented, from techno to tango- and played them the music while their brain activity was monitored. Because the scientists were combining methodologies (PET and fMRI), they were able to obtain an impressively exact and detailed portrait of music in the brain. The first thing they discovered is that music triggers the production of dopamine -a chemical with a key role in setting people's moods by the neurons (nerve cells) in both the dorsal and ventral regions of the brain. As these two regions have long been linked with the experience of pleasure, this finding isn't particularly surprising.

C

What is rather more significant is the finding that the dopamine neurons in the caudate - a region of the brain involved in learning stimulus-response associations, and in anticipating food and other 'reward' stimuli- were at their most active around 15 seconds before the participants' favorite moments in the music. The researchers call this the 'anticipatory phase' and argue that the purpose of this activity is to help us predict the arrival of our favorite part. The question, of course, is what all these dopamine neurons are up to. Why are they so active in the period preceding the acoustic climax? After all, we typically associate surges of dopamine with pleasure, with the processing of actual rewards. And yet, this cluster of cells is most active when the 'chills' have yet to arrive, when the melodic pattern is still unresolved.

D

One way to answer the question is to look at the music and not the neurons. While music often seems (at least to the outsider) like a labyrinth of intricate patterns, it turns out that the most important part of every song or symphony is when the patterns break down, when the sound becomes unpredictable. If the music is too obvious, it is annoyingly boring, like an alarm clock. Numerous studies, after all, have demonstrated that dopamine neurons quickly adapt to predictable rewards. If we know what's going to happen next, then we don't get excited. This is why composers often introduce a key note in the beginning of a song, spend most of the rest of the piece in the studious avoidance of the pattern, and then finally repeat it only at the end. The longer we are denied the pattern we expect, the greater the emotional release when the pattern returns, safe and sound.

E

To demonstrate this psychological principle, the musicologist Leonard Meyer, in his classic book *Emotion and Meaning in Music* (1956), analyzed the 5th movement of Beethoven's String Quartet in C-sharp minor, Op. 131. Meyer wanted to show how music is defined by its flirtation with -but not submission to- our expectations of order. Meyer dissected 50 measures (bars) of the masterpiece, showing how Beethoven begins with the clear statement of a rhythmic and harmonic pattern and then, in an ingenious tonal dance, carefully holds off repeating it. What Beethoven does instead is suggest variations of the pattern. He wants to preserve an element of uncertainty in his music, making our brains beg for the one chord he refuses to give us. Beethoven saves that at chord for the end.

F

According to Meyer, it is the suspenseful tension of music, arising out of our unfulfilled expectations, that is the source of the music's feeling. While earlier theories of music focused on the way a sound can refer to the real world of images and experiences its

'connotative' meaning Meyer argued that the emotions we find in music come from the unfolding events of the music itself. This 'embodied meaning' arises from the patterns the symphony invokes and then ignores. It is this uncertainty that triggers the surge of dopamine in the caudate, as we struggle to figure out what will happen next we can predict some of the notes, but we can't predict them all, and that is what keeps us listening, waiting expectantly for our reward, for the pattern to be completed.

Questions 27-31

Complete the summary below,

Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

Write your answers in boxes **27-31** on your answer sheet.

The Montreal Study

participants, who were recruited for the study through advertisements, had their brain activity monitored while listening to their favorite music. It was noted that the music stimulated the brain's neurons to release a substance called **27**..... in two of the parts of the brain which are associated with feeling **28**.....

Researchers also observed that the neurons in the area of the brain called the were particularly active just before the participants' favorite moments in the music- the period known as the **30**..... Activity in this part of the brain is associated with the expectation of 'reward' stimuli such as **31**

Questions 32-36

Choose the correct letter, **A, B, C** or **D**.

Write the correct letter in boxes 32-36 on your answer sheet.

32 What point does the writer emphasize in the first paragraph?

- A** how dramatically our reactions to music can vary
- B** how intense our physical responses to music can be
- C** how little we know about the way that music affects us
- D** how much music can tell us about how our brains operate

33 What view of the Montreal study does the writer express in the second paragraph?

- A** Its aims were innovative'
- B** The approach was too simplistic.

- C It produced some remarkably precise data.
- D The technology used was unnecessarily complex.

34 What does the writer find interesting about the results of the Montreal study?

- A the timing of participants' neural responses to the music
- B the impact of the music on participants' emotional state
- C the section of participants' brains which was activated by the music
- D the type of music which had the strongest effect on participants' brains

35 Why does the writer refer to Meyer's work on music and emotion?

- A to propose an original theory about the subject
- B to offer support for the findings of the Montreal study
- C to recommend the need for further research into the subject
- D to present a view which opposes that of the Montreal researchers

36 According to Leonard Meyer, what causes the listener's emotional response to music?

- A the way that the music evokes poignant memories in the listener
- B the association of certain musical chords with certain feelings
- C the listener's sympathy with the composer's intentions
- D the internal structure of the musical composition

Questions 37-40

Complete each sentence with the correct ending, **A-F**, below

Write the correct letter, **A-F**, in boxes **37-40** on your answer sheet

- 37** The Montreal researchers discovered that
- 38** Many studies have demonstrated that
- 39** Meyer's analysis of Beethoven's music shows that
- 40** Earlier theories of music suggested that

- A our response to music depends on our initial emotional state.
- B neuron activity decreases if outcomes become predictable.
- C emotive music can bring to mind actual pictures and events.
- D experiences in our past can influence our emotional reaction to music.
- E emotive music delays giving listeners what they expect to hear.
- F neuron activity increases prior to key points in a musical piece.

Appendix C

Motivation Questionnaire

IELTS Candidate Full Name:

Email Address:.....

Student's IELTS score:.....

English Level:

Student's IELTS Reading score:.....

The type of choices: SA (strongly agree) A (Agree) D (Disagree) SD (strongly disagree)
NA (Not decided)

Attitude Toward Art and Application of ART Education in IELTS Reading classrooms

1. Art education offers enjoyable and joyful opportunities for learning that are unavailable in traditional classrooms.

SA Strongly agree	A (Agree)	D (Disagree)	SD (Strongly disagree)	NA
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. The Art education program motivates students to learn in a fun and entertaining way in the IELTS reading classroom.

SA Strongly agree	A (Agree)	D (Disagree)	SD (Strongly disagree)	NA
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Art Education increases IELTS candidates' deep understanding of IELTS reading texts.

SA Strongly agree	A (Agree)	D (Disagree)	SD (Strongly disagree)	NA
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Art Education enhances IELTS candidates' long-lasting learning of vocabulary in IELTS reading.

SA Strongly agree	A (Agree)	D (Disagree)	SD (Strongly disagree)	NA
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Education programs should consider students' ability in art as one of the important factors.

SA Strongly agree	A (Agree)	D (Disagree)	SD (Strongly disagree)	NA
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Appreciation of art by students is as essential as producing art by them.

SA Strongly agree	A (Agree)	D (Disagree)	SD (Strongly disagree)	NA
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Students should be given a grade or assessment in artistic tasks in any other subjects.

SA Strongly agree	A (Agree)	D (Disagree)	SD (Strongly disagree)	NA
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Art and Art Education help students to overcome anxiety and learn in a stress-free IELTS reading class.

SA Strongly agree	A (Agree)	D (Disagree)	SD (Strongly disagree)	NA
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. Art and Art Education increases students' innovation and creativity when doing IELTS reading artistic tasks.

SA Strongly agree	A (Agree)	D (Disagree)	SD (Strongly disagree)	NA
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. What is your attitude regarding using art and art education in the IELTS reading preparation classroom?

SA Strongly agree	A (Agree)	D (Disagree)	SD (Strongly disagree)	NA
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. Students' progress in IELTS reading through art requires a systematic and sequentially organized art education program.

SA Strongly agree	A (Agree)	D (Disagree)	SD (Strongly disagree)	NA
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. An strong art education program is a sign of an effective and professional educational program.

SA Strongly agree	A (Agree)	D (Disagree)	SD (Strongly disagree)	NA
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. The quality of students' art experience and art knowledge will affect their attitude toward art.

SA Strongly agree	A (Agree)	D (Disagree)	SD (Strongly disagree)	NA
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. Art is a critical and inseparable part of a creative method of learning.

SA Strongly agree	A (Agree)	D (Disagree)	SD (Strongly disagree)	NA
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix D

MIDAS Questionnaire

پرسشنامه هوش چندگانه

نام و نام خانوادگی :

رشته تحصیلی:

دانشگاه:

Email address:

ایمیل

آخرین نمره آزمون ریدینگ آیلتس:

آخرین نمره آزمون آیلتس:

زمان در نظر گرفته شده برای پاسخگویی به آزمون هوش چندگانه 30 دقیقه می باشد.

1) آیا دردوران کودکی علاقه شدیدی به موسیقی یا شرکت در کلاس های موسیقی داشته اید؟

1)خیلی کم 2) گاهی اوقات 3) معمولاً 4)اغلب 5) همیشه 6) نمی دانم

2) آیا تا به حال نواختن یک آلت موسیقی را فرا گرفته اید؟

1)خیر 2) کمی 3) نسبتاً 4) به خوبی 5) در حد عالی 6) نمی دانم

3) آیا شما می توانید به طور موزون (ریتمیک) آواز بخوانید؟

1) کمی 2) نسبتاً 3) به خوبی 4) خیلی خوب 5) در حد عالی 6) نمی دانم

4) آیا شما از صدای خوبی جهت همخوانی با دیگران بر خوردار هستید؟

1) کمی 2) نسبتاً 3) به خوبی 4) در حد خیلی خوب 5) در حد عالی 6) نمی دانم

5) به عنوان یک فرد بزرگسال آیا تا بحال نوعی آلت موسیقی نواخته اید، یا اینکه عضوی از یک گروه ارکستر (نوازنده) بوده اید، و یا به همراه یک گروه کر آواز خوانده اید؟

1) هرگز 2) به ندرت 3) گاهی 4) اغلب 5) تقریباً همیشه 6) نمی دانم

6) آیا وقت زیادی را به گوش دادن موسیقی اختصاص می دهید؟

1) به ندرت 2) گاهی 3) اغلب 4) تقریباً همیشه 5) همیشه 6) نمی دانم

7) آیا شما نت موسیقی می نویسید و یا آهنگ می سازید؟

1) هرگز 2) یکی دو دفعه 3) به ندرت 4) گاهی 5) اغلب 6) نمی دانم

8) آیا شما عادت دارید بوسیله کوبیدن انگشتانتان بر روی چیزی ضرب بزنید و یا برای خودتان سوت زده و یا آواز بخوانید؟

- 1) به ندرت 2) گاهی 3) اغلب 4) تقریباً همیشه 5) همیشه 6) نمی دانم

9) آیا شما اغلب اهنگهای مورد علاقه تان را در ذهنتان مرور می کنید؟

- 1) به ندرت 2) گاهی 3) اغلب 4) تقریباً همیشه 5) همیشه 6) نمی دانم

10) آیا شما اغلب علاقه مند به صحبت در مورد موسیقی هستید؟

- 1) هرگز 2) به ندرت 3) گاهی 4) اغلب 5) همیشه 6) نمی دانم

11) آیا شما احساس خوبی نسبت به ریتم دارید؟

- 1) کمی 2) نسبتاً 3) خوب 4) خیلی خوب 5) عالی 6) نمی دانم

12) آیا شما علاقه شدیدی به صدای یکی از آلات موسیقی یا گروههای ارکستر دارید؟

- 1) به ندرت 2) گاهی 3) اغلب 4) تقریباً همیشه 5) همیشه 6) نمی دانم

13) آیا شما فکر می کنید از استعداد خوبی برای موسیقی برخوردار هستید و این استعداد هرگز به طور کامل شکوفا نگردیده است؟

- 1) خیر 2) تا حدودی 3) نسبتاً 4) تا حد خوبی 5) تا حد زیادی 6) نمی دانم

14) آیا شما اغلب همزمان با انجام کارهایتان و یا در حین مطالعه و یا استراحت به موسیقی گوش می کنید؟

- 1) به ندرت 2) گاهی 3) معمولاً 4) تقریباً همیشه 5) همیشه 6) نمی دانم

15) آیا شما در دوران مدرسه معمولاً از کلاس های بدنسازی یا ورزش بیشتر از سایر کلاسهایتان لذت می بردید؟

- 1) نه هرگز 2) کمی 3) تقریباً مثل هم 4) از ورزش بیشتر لذت می بردم 5) از ورزش خیلی بیشتر لذت می بردم 6) نمی دانم

16) در سنین نوجوانی شما هر چند وقت یکبار تمرینات ورزشی و یا بازیهای ورزشی انجام می دادید؟

- 1) به ندرت 2) گاهی 3) اغلب 4) تقریباً همیشه 5) همیشه 6) نمی دانم

17) آیا شما در گروه تئاتر مدرسه تان و یا سایر فعالیت های این چینی شرکت می کردید؟

- 1) هرگز 2) شاید یکبار 3) یکی دو مرتبه 4) اغلب 5) تقریباً همیشه 6) نمی دانم

18) آیا به نظر خودتان یا به نظر افراد دیگر (مثلاً یک مربی) شما یک قهرمان ورزشی خوب موقر و هماهنگ با تیم هستید؟

- 1) نه 2) شاید کمی 3) تقریباً متوسط 4) بهتر از متوسط 5) در حد برتر 6) نمی دانم

19) آیا شما تا حالا در زمینه های ورزشی مانند بولینگ، کاراته، گلف و غیره آموزش داده اید یا اینکه از کمی آموزش گرفته اید؟

- 1) خیر 2) به ندرت 3) گاهی 4) اغلب 5) تقریباً همیشه 6) نمی دانم

20) آیا شما تا بحال برای فعالیت های ورزشی، به تیمی ملحق شده اید؟

- 1) هرگز 2) به ندرت 3) گاهی 4) اغلب 5) تقریباً همیشه 6) نمی دانم

21) اکنون که بزرگسال هستید، آیا اغلب فعالیتهای بدنی و یا تمرینات ورزشی انجام می دهید؟

- 1) به ندرت 2) گاهی 3) اغلب 4) تقریباً همیشه 5) همیشه 6) نمی دانم

22) آیا شما در انجام بازیهای مختلف کارتی موفق هستید؟

- 1) نه خیلی خوب 2) نسبتاً 3) به خوبی 4) خیلی خوب 5) در حد عالی 6) نمی دانم

23) آیا شما در انجام کارهای دستی که به دقت نیاز دارند مانند خیاطی، الگوسازی، گرفتن عکس، و یا تایپ موفق هستید و آیا شما از دست خط خوبی برخوردار می باشید؟

- 1) نه خیلی خوب 2) نسبتاً 3) به خوبی 4) خیلی خوب 5) در حد عالی 6) نمی دانم

24) آیا شما از کارهای دستی مانند مکانیکی، ساختن اشیاء تهیه خوراکیهای فانتزی و یا مجسمه سازی لذت می برید؟

- 1) هرگز یا به ندرت 2) گاهی 3) اغلب 4) تقریباً همیشه 5) همیشه 6) نمی دانم

25) آیا شما می توانید با صورت و بدن خود رفتار و اداری افرادی مثل اعضای خانواده تان، دوستان و یا معلمانتان را تقلید کنید؟

- 1) اصلاً 2) یک کم 3) نسبتاً 4) تا حد خوبی 5) خیلی خوب 6) نمی دانم

26) آیا شما در انجام حرکات موزون مانند ژیمناستیک یا رقص موفق هستید؟

- 1) اصلاً 2) نسبتاً خوب 3) در حد خوبی 4) خیلی خوب 5) در حد عالی 6) نمی دانم

27) آیا شما از طریق توضیحی که دیگران بدهند چیزی را یاد می گیرید و یا اینکه خوتان آن کار را انجام دهید؟

- 1) همیشه با توضیح دیگران بهتر یاد می گیرم 2) گاهی با توضیح دیگران بهتر یاد می گیرم 3) فرقی نمی کند 4) معمولاً با انجام دادن آن بهتر یاد می گیرم 5) همیشه با انجام دادن آن بهتر یاد می گیرم 6) نمی دانم

28) در کودکی، آیا درس ریاضیات را مثلاً جمع و تفریق و ضرب را زود و آسان فرا می گرفتید؟

- 1) اصلاً 2) نسبتاً مشکل بود 3) نسبتاً ساده بود 4) خیلی ساده بود 5) از همه بچه ها سریعتر یاد می گرفتم 6) نمی دانم

29) در دوران مدرسه آیا شما نسبت به ریاضیات علاقه مند یا مهارت ویژه ای داشتید؟

- 1) خیلی کم یا هیچی 2) شاید کمی 3) تا حدودی 4) بیش از حد متوسط 5) خیلی زیاد 6) نمی دانم

30) در مورد ریاضیات پیشرفته مانند جبر و یا حساب دیفرانسیل و انتگرال چطور؟

- 1) هیچی یاد نگرفتم 2) نه خیلی خوب 3) نسبتاً خوب (نمره های متوسط) 4) خوب (نمره های خوب) 5) عالی (نمره های عالی) 6) نمی دانم

31) آیا شما به مطالعه علوم یا حل مسائل مربوط به علوم علاقه مند هستید؟

- 1) خیر 2) کمی 3) در حد متوسط 4) بیش از حد متوسط 5) تا حد زیادی 6) نمی دانم

32) آیا شما شطرنج یا چکرز خوب بازی می کنید؟

- 1) خیر 2) نسبتا خوب 3) خوب 4) خیلی خوب 5) عالی 6) نمی دانم

33) آیا شما در انواع بازیهای کاردتی و یا فکری موفق هستید؟

- 1) اصلا 2) کمی 3) در حد متوسط 4) در حد بهتر از متوسط 5) در حد عالی 6) نمی دانم

34) آیا شما معمولا جدول حل می کنید و یا بازیهای شبیه به جدول را دوست دارید؟

- 1) هرگز یا خیلی به ندرت 2) به ندرت 3) گاهی 4) اغلب 5) همیشه 6) نمی دانم

35) آیا شما از سیستم خوبی برای تراز کردن حسابهای یک دسته چک و یا رسم یک طرح بودجه؛ برخوردار هستید؟

- 1) اصلا 2) نسبتا خوب 3) خوب 4) خیلی خوب 5) یک سیستم عالی 6) نمی دانم

36) آیا شما حافظه خوبی در بخاطر سپردن اعداد مثلا شماره تلفن یا آدرس دارید؟

- 1) نه خیلی خوب 2) نسبتا 3) خوب 4) خیلی خوب 5) عالی 6) نمی دانم

37) شما در محاسبه اعداد در ذهنتان (به طور ذهنی)، چگونه هستید؟

- 1) نمی توانم انجام دهم 2) نه خیلی خوب 3) نسبتا 4) خوب 5) عالی 6) نمی دانم

38) آیا شما از آن افراد کنجاوی هستید که علاقه مند هستید از علت و چگونگی هر چیزی سر در آورند؟

- 1) به ندرت 2) گاهی 3) اغلب 4) تقریبا همیشه 5) همیشه 6) نمی دانم

39) شما در طرح روشهایی برای حل مشکلات طولانی مدت و پیچیده مثلا برنامه ریزی برای زندگیتان چگونه هستید؟

- 1) اصلا خوب نیستم 2) نسبتا خوب 3) خوب 4) بهتر از حد معمول 5) عالی 6) نمی دانم

40) آیا شما نسبت به طبیعت مثلا ماهیها، حیوانات، گیاهان، ستارگان و سیارات کنجاو هستید؟

- 1) به ندرت 2) گاهی 3) اغلب 4) تقریبا همیشه 5) همیشه 6) نمی دانم

41) آیا شما از تهیه کلکسیون اشیاء یا از یافتن هرگونه اطلاعات در مورد موضوع خاصی مانند عتیقه، اسبها، یا مثلا بیس بال لذت می برید؟

- 1) اصلا 2) کمی 3) گاهی 4) اغلب 5) تقریبا همیشه 6) نمی دانم

42) شما نسبت به مشاغل یا پروژه هایی که بکارگیری ریاضیات یا نظم دادن امور در آنها زیاد است، چگونه هستید؟

- 1) اصلا خوب نیستم 2) نسبتا خوب 3) خوب 4) خیلی خوب 5) عالی 6) نمی دانم

43) خارج از محیط مدرسه، آیا شما از کار کردن با اعداد مثلا محاسبه میانگین امتیازات یا بازی بیس بال یا میزان مصرف سوخت در کیلومتر و یا نمودارهای بودجه و غیره لذت می برید؟

- 1) اصلا 2) به ندرت 3) گاهی 4) اغلب 5) تقریبا همیشه 6) نمی دانم

44) آیا شما توانایی خوبی در طراحی فعالیتهای اجتماعی، کارهای تعمیراتی در منزل، و یا تعمیرات مکانیکی دارید؟

- 1) گاهی 2) معمولا 3) اغلب 4) تقریبا همیشه 5) همیشه 6) نمی دانم

45) آیا شما در کودکی، از جعبه های خالی یا قرقره ها چیزی درست می کردید، یا اینکه از آتش بازی، تپله بازی و یا پریدن از روی طناب لذت می بردید؟

- 1) هرگز یا به ندرت 2) به ندرت 3) گاهی 4) اغلب 5) همیشه 6) نمی دانم

46) در نوجوانی، کارهایی از قبیل مکانیکی، آرایش مو، نجاری، پروژه های هنری و مشابه اینها را در چه حدی انجام می دادید؟

- 1) اصلا سر در نمی آوردم 2) نسبتا 3) خوب 4) خیلی خوب 5) عالی 6) نمی دانم

47) توانایی شما در طراحی چیزهایی مانند دکوراسیون اتاق، پروژه های هنری، ساختن وسایل منزل یا دستگاه های دیگر، در چه حد است؟

- 1) اصلا نمی توانم 2) تا حدودی 3) نسبتا خوب 4) خوب 5) عالی 6) نمی دانم

48) آیا شما می توانید با اولین فرمان اتومبیل را کاملا موازی با اتومبیل دیگری پارک نمائید؟

- 1) به ندرت رانندگی می کنم 2) گاهی 3) اغلب 4) تقریبا همیشه 5) همیشه 6) نمی دانم

49) شما در پیدا کردن راهتان در یک آدرس جدید، چگونه هستید؟

- 1) اصلا خوب نیستم 2) نسبتا خوب 3) خوب 4) خیلی خوب 5) عالی 6) نمی دانم

50) شما در استفاده از نقشه یک جاده برای یافتن مسیرتان، چگونه هستید؟

- 1) اصلا خوب نیستم 2) نسبتا خوب 3) خوب 4) خیلی خوب 5) در خواندن نقشه عالی هستم
6) نمی دانم

51) آیا شما در تعمیرات چیزهایی مانند اتومبیل، چراغ، وسایل منزل یا دستگاههای مختلف موفق هستید؟

- 1) اصلا 2) نه خیلی خوب 3) نسبتا خوب 4) خوب 5) عالی 6) نمی دانم

52) شما در سرهم بندی کردن (بستن) چیزهایی مانند اسباب بازی، پازل، یا وسایل برقی چگونه هستید؟

- 1) اصلا نمی توانم 2) برایم مشکل است 3) نسبتا آسان است 4) آسان است 5) خیلی آسان است
6) نمی دانم

53) آیا شما تا به حال از طرح و یا الگوی خودتان برای پروژه هایی مانند خیاطی، قالی بافی، قلاب دوزی، کارهای چوبی و یا غیره استفاده کرده اید؟

- 1) هرگز 2) شاید یکبار 3) به ندرت 4) گاهی 5) اغلب 6) نمی دانم

54) آیا تا به حال چیزی رسم کرده اید یا نقاشی کشیده اید؟

- 1) هرگز یا خیلی به ندرت 2) به ندرت 3) گاهی 4) اغلب 5) تقریبا همیشه 6) نمی دانم

55) آیا شما سلیقه خوبی در طراحی دکوراسیون، معماری یا گل آرایی دارید؟

- 1) نه خیلی خوب 2) نسبتا خوب 3) خوب 4) خیلی خوب 5) عالی 6) نمی دانم

56) آیا وقتی در جاهای ناشناخته (غریبه) قرار بگیرید، حس تشخیص جهت خوبی دارید؟

- 1) اصلا 2) نسبتا خوب 3) خوب 4) خیلی خوب 5) عالی 6) نمی دانم

57) آیا شما بازیهای چون اسب دوانی، پرتاب نیزه، تیراندازی، کتابداری، یا بولینگ را خوب انجام می دهید؟

- 1) اصلا 2) کمی 3) نسبتا 4) بهتر از حد متوسط 5) عالی 6) نمی دانم

58) آیا شما برای مشخص نمودن یک جهت یا توضیح دادن یک ایده از رسم کردن شکل یا طراحی استفاده می کنید؟

- (1) هرگز (2) به ندرت (3) گاهی (4) اغلب (5) همیشه (6) نمی دانم

59) آیا شما خلاق هستید، و دوست دارید وسایل، لباس ها، یا پروژه هایی با طرح منحصر به فرد درست کنید یا تجربه کنید؟

- (1) به ندرت (2) گاهی (3) اغلب (4) تقریباً همیشه (5) همیشه (6) نمی دانم

60) آیا شما از تعریف کردن داستان یا صحبت کردن در مورد فیلم ها یا کتاب های مورد علاقه تان لذت می برید؟

- (1) اصلاً (2) به ندرت (3) گاهی (4) اغلب (5) تقریباً همیشه (6) نمی دانم

61) آیا شما با صداهای موجود در کلمات بازی می کنید مثلاً اینکه کلمات با قافیه یا کلمات بی معنی مثل جلینگ جلینگ بسازید یا مثلاً از اینگونه کلمات در نامگذاری خنده دار بعضی چیزها یا اشخاص استفاده کنید؟

- (1) هرگز (2) به ندرت (3) گاهی (4) اغلب (5) همیشه (6) نمی دانم

62) آیا شما کلمات یا عبارات متنوع (جالب) در صحبت کردن، بکار می برید؟

- (1) خیر (2) به ندرت (3) گاهی (4) اغلب (5) همیشه (6) نمی دانم

63) آیا شما تا بحال یک داستان، شعر، یا ترانه نوشته اید؟

- (1) هرگز (2) شاید یکی دو مرتبه (3) گاهیگاهی (4) اغلب (5) تقریباً همیشه (6) نمی دانم

64) آیا شما در صحبت کردن قدرت متقاعد کردن دیگران را دارید؟

- (1) اصلاً (2) به ندرت (3) گاهی (4) اغلب (5) تقریباً همیشه (6) نمی دانم

65) شما در چانه زدن یا معامله با دیگران چطور هستید؟

- (1) نه خیلی خوب (2) تا حدودی (3) نسبتاً خوب (4) خوب (5) عالی (6) نمی دانم

66) آیا شما می توانید با گفتار تان دیگران را طوری متقاعد کنید که کارها را آنطور که شما می خواهید انجام دهند؟

- 1) اصلا 2) به ندرت 3) گاهی 4) اغلب 5) تقریبا همیشه 6) نمی دانم

67) آیا شما برای جمع صحبت کرده اید و یا سخنرانی عمومی دارید؟

- 1) خیلی به ندرت یا هرگز 2) به ندرت 3) گاهی 4) اغلب 5) تقریبا همیشه 6) نمی دانم

68) شما در اداره کردن دیگران یا نظارت بر آنان چگونه هستید؟

- 1) هرگز چنین کاری نمی کنم یا خیلی خوب نیستم 2) نسبتا خوب 3) خوب 4) خیلی خوب 5) عالی 6) نمی دانم

69) آیا شما به صحبت کردن در مورد اخبار یا موضوعات خانوادگی، مذهبی، ورزشی و غیره علاقه مندید؟

- 1) کمی 2) مقداری علاقه مند 3) علاقه معمولی دارم 4) بیشتر از حد عادی علاقه مند 5) تا حد زیادی 6) نمی دانم

70) آیا شما توانایی آن را دارید تا علی رغم مخالفت دیگران به آسانی طرز فکر یا احساس خود را از بیان نمائید؟

- 1) به ندرت 2) هر چند وقت یکبار 3) بعضی وقتها 4) اغلب 5) همیشه 6) نمی دانم

71) آیا شما از پیدا کردن معنی لغت در دیکشنری، یا بحث کردن با دیگران در مورد طرز بکارگیری صحیح لغات، لذت می برید؟

- 1) هرگز یا به ندرت 2) هر چند وقت یکبار 3) گاهی 4) اغلب 5) بیشتر اوقات 6) نمی دانم

72) آیا شما معمولا آن کسی هستید که از طرف خانواده یا دوستان برای صحبت کردن انتخاب می شوید، به دلیل آنکه سخنور خوبی هستید؟

- 1) هرگز یا خیلی به ندرت 2) به ندرت 3) گاهی 4) همیشه 5) تقریبا همیشه 6) نمی دانم

73) آیا شما می توانید طرز صحبت کردن دیگران را به خوبی تقلید کنید؟

- 1) واقعا خیر 2) تا حدودی 3) نسبتا خوب 4) به خوبی 5) خیلی خوب 6) نمی دانم

74) آیا شما در نوشتن گزارش (برای مدرسه یا محل کارتان) موفق هستید؟

- 1) واقعا نه تا بحال انجام نداده ام 2) نسبتا خوب 3) خوب 4) خیلی خوب 5) عالی 6) نمی دانم

75) آیا شما می توانید یک نامه خوب بنویسید؟

- 1) خیر 2) نسبتا خوب 3) خوب 4) خیلی خوب 5) عالی 6) نمی دانم

76) آیا شما علاقه مند به خواندن (روخوانی) یا صحبت کردن در کلاسهای زبان انگلیسی می باشید؟

- 1) کمی 2) گاهی 3) معمولا 4) اغلب 5) همیشه 6) نمی دانم

77) آیا شما برای کارهایی که می خواهید انجام دهید یادداشت و یا لیست تهیه می کنید تا فراموش نکنید؟

- 1) هرگز یا به ندرت 2) هر چند وقت یکبار 3) گاهی 4) اغلب 5) تقریبا همیشه 6) نمی دانم

78) آیا شما از دامنه لغت وسیعی برخوردار هستید؟

- 1) نه واقعا 2) کمتر از حد معمول 3) در حد معمول 4) بالاتر از حد معمول 5) عالی 6) نمی دانم

79) آیا شما در انتخاب لغت صحیح و مناسب برای صحبت کردن خوب و درست مهارت دارید؟

- 1) اصلا یا به ندرت 2) گاهی 3) معمولا 4) بیشتر اوقات 5) تقریبا همیشه 6) نمی دانم

80) آیا شما ارتباطات دوستانه طولانی مدت با کسی داشته اید؟

- 1) یکی دو مورد 2) بیش از دو مورد 3) خیلی 4) زیاد 5) تعداد زیادی 6) نمی دانم

81) آیا شما توانایی برقراری آرامش در خانه یا محل کار و یا میان دوستانتان را دارید؟

- 1) تا حدود کمی 2) نسبتا 3) تا حد خوبی 4) خیلی خوب 5) در حد عالی 6) نمی دانم

82) آیا شما معمولا رهبری انجام کارها را در مدرسه یا محل کار یا میان دوستانتان به عهده می گیرید؟

- 1) به ندرت 2) دیر به دیر 3) گاهی 4) اغلب 5) تقریبا همیشه 6) نمی دانم

83) در دوران مدرسه، آیا شما معمولا عضو گروه خاصی بودید؟

- 1) به ندرت 2) کم پیش می آمد 3) گاهی 4) بیشتر اوقات 5) تقریبا همیشه 6) نمی دانم

84) آیا شما به راحتی احساسات، تمایلات یا نیازهای دیگران را درک می کنید؟

- 1) گاهی 2) معمولا 3) اغلب 4) تقریبا همیشه 5) همیشه 6) نمی دانم

85) آیا شما معمولا پیشنهاد کمک به دوستانتان، افراد پیر یا بیمار می دهید؟

- 1) گاهی 2) معمولا 3) اغلب 4) خیلی اوقات 5) همیشه 6) نمی دانم

86) آیا دوستان شما یا اعضای خانواده تان معمولا برای در میان گذاشتن مشکلات شخصی خود یا درخواست کمک فکری به شما مراجعه می کنند؟

- 1) به ندرت 2) گاهی 3) معمولا 4) تقریبا همیشه 5) همیشه 6) نمی دانم

87) آیا شما در مورد شخصیت افراد به خوبی قضاوت می کنید (شخصیت های افراد را به خوبی تشخیص می دهید)؟

- 1) به ندرت 2) گاهی 3) معمولا 4) تقریبا همیشه 5) همیشه 6) نمی دانم

88) آیا شما می دانید چگونه به افراد دیگر کمک کنید تا به احساس آرامش و راحتی برسند؟

- 1) به ندرت 2) گاهی 3) معمولا 4) تقریبا همیشه 5) همیشه 6) نمی دانم

89) آیا شما معمولا نصیحت های خوب دوستانتان را می پذیرید؟

- 1) به ندرت 2) گاهی 3) معمولا 4) تقریبا همیشه 5) همیشه 6) نمی دانم

90) آیا شما معمولا با افراد همسن و سال خودتان راحتید؟

- 1) به ندرت 2) گاهی 3) معمولا 4) تقریبا همیشه 5) همیشه 6) نمی دانم

91) آیا شما در درک احساسات همسرتان یا کسی که قرار است با او ازدواج کنید، موفق هستید؟

- 1) به ندرت 2) گاهی 3) معمولاً 4) تقریباً همیشه 5) همیشه 6) نمی دانم

92) آیا دیگران به آسانی می توانند با شما ارتباط برقرار کرده یا با شما آشنا شوند؟

- 1) اصلاً 2) به سختی 3) نسبتاً آسان 4) به آسانی 5) خیلی آسان 6) نمی دانم

93) آیا شما در کنار آمدن با بچه ها مشکل دارید؟

- 1) معمولاً مشکل دارم 2) گاهی مشکل است 3) معمولاً آسان است 4) تقریباً خیلی آسان است 5) همیشه خیلی آسان است 6) نمی دانم

94) آیا شما به تدریس، مربی گری یا شغل، مشاوره علاقه مندید؟

- 1) خیلی کم یا اصلاً 2) کمی علاقه مند 3) تا حدودی علاقه مند 4) علاقه زیادی دارم 5) خیلی زیاد علاقه دارم 6) نمی دانم

95) آیا شما در مشاغلی که با مردم (به عنوان ارباب رجوع) سروکار دارند مانند معاملات، پذیرش ادارات، بازاریاب، پلیس، یا گارسون موفق هستید؟

- 1) خیر 2) نسبتاً خوب 3) خوب 4) خیلی خوب 5) عالی 6) نمی دانم

96) آیا شما به کار کردن در کنار افراد دیگر علاقه مندید یا ترجیح می دهید به تنهایی کار کنید؟

- 1) همیشه کار در تنهایی را ترجیح می دهم 2) معمولاً کار در تنهایی را ترجیح می دهم 3) فرقی نمی کند 4) معمولاً با گروه بودن را ترجیح می دهم 5) همیشه با گروه بودن را ترجیح می دهم 6) نمی دانم

97) آیا شما قادر هستید از طریق شیوه های منحصر به فرد و تخیلی مشکلات بین افراد دیگر را حل نموده و یا به دعاها فیصله دهید؟

- 1) شاید یکی دو بار 2) خیلی به ندرت 3) گاهی 4) اغلب 5) همیشه 6) نمی دانم

98) آیا شما دارای درک واضح و مشخصی نسبت به هویت خود و اینکه چه چیزی از زندگی انتظار دارید هستید؟

- 1) خیلی کم 2) کمی 3) گاهی 4) بیشتر اوقات 5) تقریباً همیشه 6) نمی دانم

99) آیا شما نسبت به انواع احساسات خود آگاهی داشته و قادر به کنترل اخلاق (مرام) خود می باشید؟

- 1) به ندرت 2) گاهی 3) معمولا 4) تقریبا همیشه 5) همیشه 6) نمی دانم

100) آیا شما برای اهداف شخصی خویش مانند درس، شغل یا امور مربوط به خانه، به طور جدی برنامه ریزی و تلاش می کنید؟

- 1) به ندرت 2) گاهی 3) بیشتر مواقع 4) تقریبا همیشه 5) همیشه 6) نمی دانم

101) آیا شما به علاقه خویش آگاه بوده و قادر به تصمیم گیری های مهم در مواردی چون انتخاب کلاس، تعیین شغل یا مسیر زندگیتان می باشید؟

- 1) خیلی به ندرت 2) گاهی 3) معمولا 4) تقریبا همیشه 5) همیشه 6) نمی دانم

102) آیا شما از شغلنتان راضی هستید به دلیل آنکه با مهارتها، علائق و شخصیت شما متناسب است؟

- 1) خیر یا به ندرت 2) گاهی 3) معمولا 4) تقریبا همیشه 5) همیشه 6) نمی دانم

103) آیا شما به نقاط قوت و ضعف خویش واقفید و سعی در بهتر نمودن مهارتهای خویش دارید؟

- 1) به ندرت 2) گاهی 3) معمولا 4) تقریبا همیشه 5) همیشه 6) نمی دانم

104) آیا در هنگام شکست دچار عصبانیت یا دلسردی می شوید؟

- 1) تقریبا همیشه 2) گاهی 3) هر از گاهی 4) به ندرت 5) تقریبا هرگز 6) نمی دانم

105) آیا شما به "پیشرفت شخصیت خود" علاقه مند هستید و برای مثال در کلاس های فراگیری مهارت های جدید شرکت می نمائید یا کتابها و

مجلات "کمک به خویشتن" را مطالعه می کنید؟

- 1) خیر 2) کمی 3) گاهی 4) اغلب 5) تقریبا همیشه 6) نمی دانم

106) آیا شما معمولا قادر به یافتن شیوه های منحصر به فرد و غیرعادی برای حل مشکلات خویش یا دستیابی به اهدافتان هستید؟

- 1) یکی دو مرتبه 2) هر از گاهی 3) بعضی وقتها 4) اغلب 5) همیشه 6) نمی دانم

107) آیا شما تا بحال حیوانات اهلی را پرورش داده اید؟

- 1) هرگز یا به ندرت 2) هر از گاهی 3) گاهی 4) اغلب 5) همیشه 6) نمی دانم

108) آیا برای شما آسان است که از یک حیوان مراقبت نموده یا آن را درک کنید؟

- 1) اصلا 2) شاید کمی 3) نسبتا آسان است 4) تا حدودی آسان است 5) خیلی آسان است 6) نمی دانم

109) آیا شما تا به حال در مقوله آموزش به حیوانات، شکار، یا مطالعه حیات وحش شرکت داشته اید؟

- 1) خیر 2) کمی 3) گاهی 4) خیلی 5) خیلی زیاد 6) نمی دانم

110) آیا شما در کارهای مربوط به پرورش حیوانات اهلی موفق بوده یا تا بحال به اینکه یک دامپزشک یا طبیعت شناس باشید، اندیشیده اید؟

- 1) اصلا 2) کمی 3) تا حدودی 4) خیلی 5) خیلی زیاد 6) نمی دانم

111) آیا شما تفاوت میان حیوانات از نظر شخصیت، خصوصیات یا عادات آنها را، تشخیص می دهید؟

- 1) اصلا 2) کمی 3) تا حدودی به آسانی 4) نسبتا آسان 5) خیلی آسان 6) نمی دانم

112) آیا شما نژاد یا گونه حیوانات اهلی را تشخیص می دهید؟

- 1) اصلا 2) کمی 3) تا حدودی 4) نسبتا خوب 5) خیلی خوب 6) نمی دانم

113) آیا شما استعداد خوبی در مشاهده و یادگیری طبیعت مثلا نوع ابرها، تغییرات جوی، و یا زندگی گیاهان و حیوانات دارید؟

- 1) اصلا 2) کمی 3) تا حدودی 4) خیلی 5) خیلی زیاد 6) نمی دانم

114) آیا شما در پرورش گیاهان و یا به عمل آوردن یک باغچه موفق هستید؟

- 1) اصلا 2) کمی 3) تا حدودی 4) خیلی 5) خیلی خوب 6) نمی دانم

115) آیا گیاهان را می شناسید یا قادر به تشخیص تفاوت های انواع گیاهان هستید؟

- 1) اصلا 2) کمی 3) تا حدودی 4) بیشتر اوقات 5) همیشه 6) نمی دانم

116) آیا سیستم های مولد انرژی طبیعی مانند مواد شیمیایی، برق، موتورها، فیزیک یا زمین شناسی، برای شما جذابیت دارند؟

- 1) خیر 2) کمی 3) تا حدودی 4) خیلی 5) خیلی زیاد 6) نمی دانم

117) آیا مراقبت از طبیعت برای شما مهم است و کارهایی مانند بازیافت مواد، اردو زدن در طبیعت، گردش و پیاده روی، یا تماشای پرندگان، را انجام می دهید؟

- 1) خیر 2) کمی 3) تا حدودی 4) خیلی 5) خیلی زیاد 6) نمی دانم

118) آیا شما از طبیعت عکس می گیرید و یا در مورد آن داستان می نویسید و کارهای هنری دیگری در این رابطه انجام می دهید؟

- 1) خیر 2) کمی 3) تا حدودی 4) خیلی 5) خیلی زیاد 6) نمی دانم

119) آیا گذراندن وقت در طبیعت بخش مهمی از زندگی شما را تشکیل می دهد؟

- 1) واقعا خیر 2) کمی 3) تا حدودی 4) خیلی 5) خیلی زیاد 6) نمی دانم

Appendix E

Visual Artistic tasks for IELTS Reading Comprehension



ARTISTIC TASKS

FOR

IELTS READING COMPREHENSION

Cork

A

Cork the thick bark of the cork oak tree is a remarkable material. It is tough, elastic, buoyant and fire-resistant, and suitable for a wide range of purposes. It has also been used for millennia; the ancient Egyptians sealed their sarcophagi (stone coffins) with cork, while the ancient Greeks and Romans used it for anything from beehives to sandals.

B

And the cork itself is an extraordinary tree. Its bark grows up to 20 cm in thickness, insulating the tree like a coat wrapped around the trunk and branches and keeping the inside at a constant 20 C all year round. Developed most probably as a defense against forest fires. The bark of the cork oak has a particular cellular structure with about 40 million cells per cubic centimeter that technology has never succeeded in replicating. The cells are filled with air, which is why cork is so buoyant. It also has an elasticity that means you can squash it and watch it spring back to its original size and shape when you release the pressure.

C

Cork oaks grow in a number of Mediterranean countries, including Portugal, Spain, Italy, Greece and Morocco. They flourish in warm, sunny climates where there is a minimum of 400 millimeters of rain per year, and not more than 800 millimeters. Like grape vines the trees thrive in poor soil, putting down deep roots in search of moisture and nutrients. Portugal's Alentejo region meets all of these requirements. which explains why, by the early 20th century, this region had become the world's largest producer of cork, and why today it accounts for roughly half of all cork production around the world.

D

Most cork forests are family-owned. Many of family businesses and indeed many of the trees themselves, are around 200 years old. Cork production is, above all, an exercise in patience. From the planting of a cork sapling to the first harvest takes 25 years, and a gap approximately a decade must separate harvests from an individual tree. And for top-quality cork. It's necessary to wait a further 15 or 20 years. You even have to wait for the right kind of summer s day to harvest cork. If the bark is stripped on a day when it's too cold- or when the air is damp- the tree will be damaged.

E

Cork harvesting is a very specialized profession. No mechanical means of stripping cork has been invented. So the job is done by teams of highly skilled workers. First, they make vertical cuts down the bark using small sharp axes, then lever it a way in pieces as large as they can manage. The most skillful cork-strippers prize away a semi- circular husk that runs the length of the trunk from just above ground level to the first branches. It is then dried on the ground for about four months, before being taken to factories, where it is boiled to kill any insects that might remain in the cork. Over %60 of cork then goes on to be made into traditional bottle stoppers, with most of remainder being used in the construction trade, Corkboard and Cork tiles are ideal for thermal and acoustic insulation, while granules of cork are used in the manufacture of concrete.

F

Recent years have seen the end of the virtual monopoly of cork as the material for bottle stoppers, due to concerns about the effect it may have on the contents of the bottle. This is caused by a chemical compound called 2,4,6 - trichloroanisole (TCA), which forms through the interaction of plant phenols, chlorine and mold. The tiniest concentrations- as little as three or four parts to a trillion- can spoil the taste of the product contained in the bottle. The result has been a gradual yet steady move first towards plastic stoppers and more recently, to aluminum screw caps. These substitutes are cheaper to manufacture and, in the case of screw caps, more convenient for the user.

G

The classic cork stopper does have several advantages, however Firstly, its traditional image is more in keeping with that of the type of high-quality goods with which it has long been associated. Secondly and very importantly cork is a sustainable product that can be recycled without difficulty. Moreover, cork forests are a resource which support local biodiversity, and prevent desertification in the regions where they are planted. So, given the current concerns about environmental issues, the future of this ancient material once again looks promising.

Task 1:

Close your eyes and picture whatever you have read. Try to visualize the whole passage and every paragraph of the text and then sketch the related themes on the paper. In drawing pictures, you can draw exactly the things or the related themes, which helps you to comprehend the reading passage better.

The Task Aim: Visualize the students' mental blackboard on the paper. The purpose of the task is to help students to enhance the power of imagination and visualization of the reading passage. The time for visualization and sketching is free because the task aims to empower IELTS candidates' visualization ability.

Note:

1. you can include in this picture any spelling words, math formulas, history facts, or other data.
2. You can use shapes, colors, and funny and comic things in your picture.
3. you are permitted to apply animation, cartoons, and fictional images in your painting.
4. you can use any signals and markers to highlight something or to mark something to remember in your picture.
5. recommended that you make some notes at the bottom of your picture about the related the topic or the theme or summary of every paragraph beside the pictures.
6. Try to use a variety of bright colors and funny and comic pictures to make your picture more joyful and attractive.
7. you have no limitation in time for drawing your paintings.



Visualize & picture





Paragraph A

A

Cork the thick bark of the cork oak tree is a remarkable material. It is tough, elastic, buoyant and fire-resistant, and suitable for a wide range of purposes. It has also been used for millennia; the ancient Egyptians sealed their sarcophagi (stone coffins) with cork, while the ancient Greeks and Romans used it for anything from beehives to sandals.

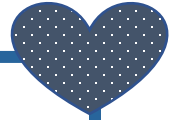
Visualize & picture A

Paragraph B

B

And the cork itself is an extraordinary tree. Its bark grows up to 20 cm in thickness, insulating the tree like a coat wrapped around the trunk and branches and keeping the inside at a constant 20 C all year round. Developed most probably as a defense against forest fires. The bark of the cork oak has a particular cellular structure with about 40 million cells per cubic centimeter that technology has never succeeded in replicating. The cells are filled with air, which is why cork is so buoyant. It also has an elasticity that means you can squash it and watch it spring back to its original size and shape when you release the pressure.

Visualize & picture B



B.

Paragraph C

C

Cork oaks grow in a number of Mediterranean countries, including Portugal, Spain, Italy, Greece and Morocco. They flourish in warm, sunny climates where there is a minimum of 400 millimeters of rain per year, and not more than 800 millimeters. Like grape vines the trees thrive in poor soil, putting down deep roots in search of moisture and nutrients. Portugal's Alentejo region meets all of these requirements. which explains why, by the early 20th century, this region had become the world's largest producer of cork, and why today it accounts for roughly half of all cork production around the world.



Visualize & picture C

Paragraph D



D

Most cork forests are family-owned. Many of family businesses and indeed many of the trees themselves, are around 200 years old. Cork production is, above all, an exercise in patience. From the planting of a cork sapling to the first harvest takes 25 years, and a gap approximately a decade must separate harvests from an individual tree. And for top-quality cork. It's necessary to wait a further 15 or 20 years. You even have to wait for the right kind of summer s day to harvest cork. If the bark is stripped on a day when it's too cold- or when the air is damp- the tree will be

Visualize & picture D



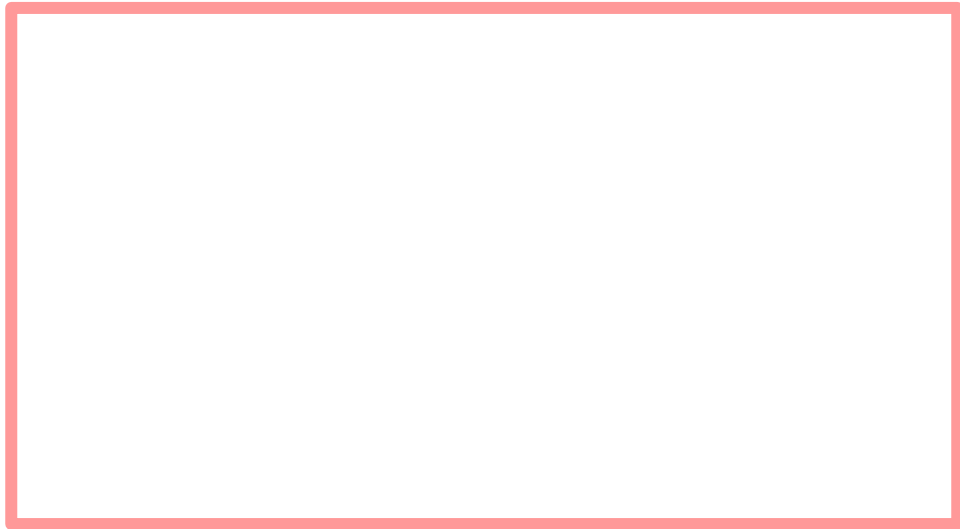
Paragraph E



E

Cork harvesting is a very specialized profession. No mechanical means of stripping cork has been invented. So the job is done by teams of highly skilled workers. First, they make vertical cuts down the bark using small sharp axes, then lever it a way in pieces as large as they can manage. The most skillful cork-strippers prize away a semi- circular husk that runs the length of the trunk from just above ground level to the first branches. It is then dried on the ground for about four months, before being taken to factories, where it is boiled to kill any insects that might remain in the cork. Over %60 of cork then goes on to be made into traditional bottle stoppers, with most of remainder being used in the construction trade, Corkboard and Cork tiles are ideal for thermal and acoustic insulation, while granules of cork are used in the manufacture of concrete.

Visualize & picture E



Paragraph F

F

Recent years have seen the end of the virtual monopoly of cork as the material for bottle stoppers, due to concerns about the effect it may have on the contents of the bottle. This is caused by a chemical compound called 2,4,6 -trichloroanisole (TCA), which forms through the interaction of plant phenols, chlorine and mold. The tiniest concentrations- as little as three or four parts to a trillion- can spoil the

taste of the product contained in the bottle. The result has been a gradual yet steady move first towards plastic stoppers and more recently, to aluminum screw caps. These subtitles are cheaper to manufacture and, in the case of screw capes, more convenient for the user.



Visualize & picture F



Paragraph G



G

The classic cork stopper does have several advantages, however Firstly, its traditional image is more in keeping with that of the type of high quality goods with which it has long been associated. Secondly and very importantly cork is a sustainable product that can be recycled without difficulty. Moreover, cork forests are a resource which support local biodiversity, and prevent desertification in the regions where they are planted. So, given the current concerns about environmental issues, the future of this ancient material once again looks promising.

Visualize & picture G



Task 2: support for scanning strategy

There are some sentences written on the paper separately in several boxes.

1. Write the correct answers in green boxes
2. Write the false answers in pink boxes
3. Write “not given” information answers in blue boxes

Task Aim: Use various bright colors to answer the kind of test formats popular in the IELTS reading test called a “true, false, not given” test to make the answer more pleasant to the test takers.

Do the following statements agree with the information in Reading Passage titled “Cork.”

True if the statement agrees with the information

False if the statement contradicts the information

Not Given if there is no information on this

Reading passage titled “Cork”:

1. The Cork oak has the thickest bark of any living tree
2. Scientists have developed a synthetic cork with the same cellular structure as natural cork.
3. Individual cork oak trees must be left for 25 years between the first and second harvest.
4. Cork bark should be stripped in dry atmospheric conditions.
5. The only way to remove the bark from cork oak trees is by hand.



True



False




Not Given



_____ 

_____ 

_____ 

_____ 

_____ 

_____ 



Task 3: Vocabulary Task

Read the whole passage and try to find the unknown vocabulary. Underline each word, and then draw a picture related to the meaning of the word to remember. This picture could be just related to the concept of the word, not exactly the picture of the word itself.

Draw some pictures of known and unknown vocabulary found in text one titled “Cork” in the following designed pages and write down the vocabulary below every picture in the box.

Task Aim: This task helps students to learn a variety of vocabulary using pictures. Drawing for learning vocabulary helps readers to remember the words permanently and helps for learning the words. The time for doing the task is unlimited.





Unknown Vocabulary

- 1.....
- 2.....
- 3.....
- 4.....
- 5.....
- 6.....
- 7.....
- 8.....
- 9.....
- 10.....
- 11.....
- 12.....
- 13.....
- 14.....

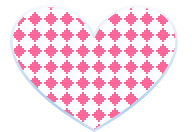
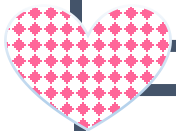
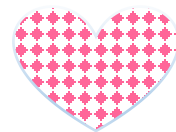
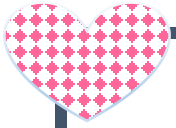


Known vocabulary

- 1.....
- 2.....
- 3.....
- 4.....
- 5.....
- 6.....
- 7.....
- 8.....
- 9.....
- 10.....
- 11.....
- 12.....
- 13.....
- 14.....

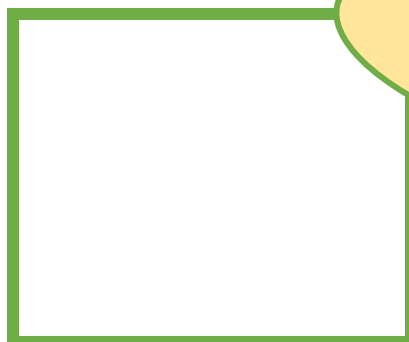
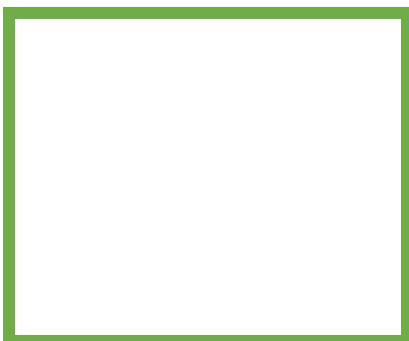
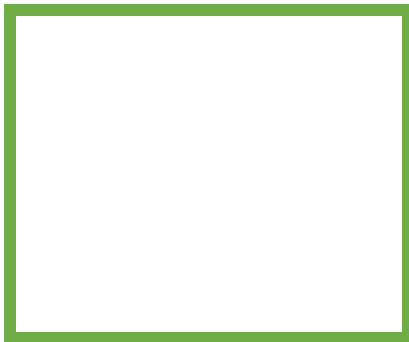
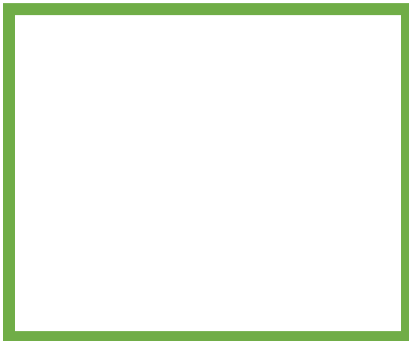
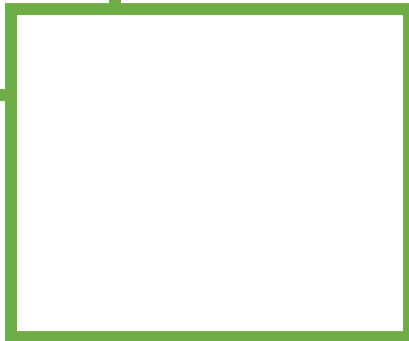
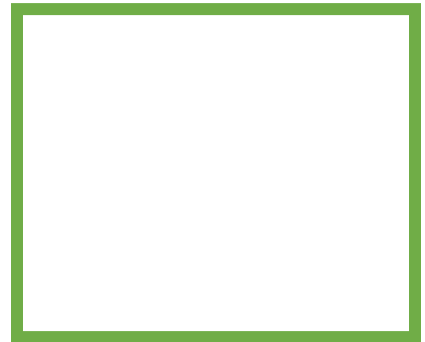
Now: Draw some pictures for both known and unknown vocabulary which you have selected in passage 1, “Cork,” and write down the related vocabulary below every picture you draw in the box

Unknown Vocabulary





Known Vocabulary



Collecting as A Hobby

A

Collecting must be one of the most varied of human activities and it is one that many of us psychologists find fascinating. Many forms of collecting dignified with a technical name: an arctophilist collects teddy bears, a philatelist collects postage stamps, and a deltiologist collects postcards, amassing hundreds or even thousands of postcards, chocolate wrappers or whatever, takes time, energy and money that could surely be put much more productively to use. And yet there are millions of collectors around the world. Why do they do it?

B

There are the people who collect because they want to make money- this could be called an instrumental reason for collecting; that is, collecting as a means to an end. They'll look for, say, antiques that they can buy cheaply and expect to be able to sell at a profit. But there may be a well psychological element too- buying cheap and selling dear can give the collector a sense of triumph. And as selling online is so easy, more and more people are joining in.

C

Many collectors collect to develop their social life, attending meetings of a group of collectors and exchanging information on items. This is a variant on joining a bridge club or a gym, and similarly brings them into contact with like-minded people.

D

Another motive for collecting is the desire to find something special, or a particular example of the collected item, such as a rare early recording by a particular singer.

E

Some may spend their whole lives in a hunt for this. Psychologically this can give a purpose to a life that otherwise feels aimless. There is a danger, though, that if the individual is ever lucky enough to find what they're looking for, rather than celebrating their success, they may feel empty, now that the goal that drove them on has gone.

F

If you think about collecting postage stamps, another potential reason for it –or perhaps, a result of collecting opens a window to other countries, and to the plants, animals, or famous people shown on their stamps. Similarly, in the 19th century, many collectors amassed fossils, animals and plants from around the globe, and their collections provided a vast amount of information about the natural world. Without those collections, our understanding would be greatly inferior to what it is.

G

In the past and nowadays, too, though to a lesser extent a popular form of collecting, particularly among boys, and men, was trainspotting. This might involve trying to see every locomotive of a particular type, using published data that identifies each one, and ticking off each engine as it is seen. Train spotters exchange information, these days often by mobile phone, so they can work out where to go to, to see a particular engine. As by-product, many practitioners of the hobby become very knowledgeable about railway operations, or the technical specifications of different engine types.

H

Similarly, many people who collect dolls may go beyond simply enlarging their collections, and develop an interest in the way that dolls are made, or the materials that are used. These have changed over the centuries from the wood that was standard in 16th century Europe, though the wax and porcelain of later centuries, to the plastics of today's dolls. Or collectors might be inspired to study how dolls reflect notions of what children, like or ought to like.

I

Not all collectors are interested in learning from their hobby, though, so what we might call a psychological reason for collecting is a need for a sense of control, perhaps as a way of dealing with insecurity. Stamps collectors, for instance arrange their stamps in albums, usually very neatly, organizing their collection according to certain commonplace principles perhaps by country in alphabetical order or ground or grouping stamps by what they depict people, birds, maps, and so on.

J

One reason conscious or not, for what someone chooses to collect is to show the collector's individualism. Someone who decides to collect something unexpected as dog collars, for instance, may be conveying their belief that they must be interesting themselves. And believe it or not, there is at least one dog collar museum in existence, and it grew out of a personal collection.

K

Of course, all hobbies give pleasure, but the common factor in collecting is usually passion; pleasure is putting it far too mildly. More than most other hobbies collecting can be totally engrossing, and can give a strong sense of personal fulfilment. To non-collect

What is the purpose of gaining knowledge?

A

“I would found institution where any person can find instruction in any subject.” That was the founder s motto for Cornell University, and it seems an apt characterization of the different university, also in the USA, where I currently teach philosophy. A student can prepare for a career in resort management, engineering, interior design, accounting, music, law enforcement, you name it. But what would the founder of these two institutions have thought of a course called ‘Arson for Profit? I kid you not: we have it on the books. Any undergraduates who have met the academic requirements can sign up for the course in our program in ‘fire science’.

B

Naturally, the course is intended for prospective arson investigators, who can learn all the tricks of trade for detecting whether a fire was deliberately set, discovering who did it, and establishing a chain of evidence for effective prosecution in a court of law. But wouldn’t this also be the perfect course for prospective arsonists to sign up for? My point is not to criticize academic programs in fire science: they are highly welcome part of the increasing professionalization of this and many other occupations. However, it’s not unknown for a fire fighter to torch a building. This example suggests how dishonest and illegal behavior, with the help of higher education, can creep into every aspect of public and business life.

C

I realized this a new when I was invited to speak before a class in marketing, which is another of our degree programs. The regular instructor is a colleague who appreciates the kind of ethical perspective. I can bring as a philosopher. There are endless ways I could have approached this assignment, but I took my cue from the title of the course. Principle of Marketing ‘. It made me think to ask the students. ‘Is marketing principled?’ After all, a subject matter can have principles in the sense of being codified, having rules, as with football or chess, without being principled in the sense of being ethical. Many of the students immediately assumed that the answer to my question about marketing principles was obvious: no. Just look at the ways in which everything under the sun has been marketed; obviously it need not be done in *principled (ethical)* fashion.

D

Is that obvious? I made the suggestion, which may sound downright crazy in light of the evidence, that perhaps marketing is *by definition* principled. My inspiration for this judgment is the philosopher Immanuel Kant, who argued that anybody of knowledge consists of an end (or purpose) and a means.

E

Let us apply both the terms ‘means’ and ‘end’ to marketing. The students have signed up for a course in order to learn how to learn how to market effectively. But to what end? There seem to be two main attitudes toward that question. One is that the answer is obvious: the purpose of marketing expertise is to sell things and to make money. The other attitude is that the *purpose* of marketing is irrelevant. Each person comes to the program and course with his or her own plans, and these need not even concern the acquisition of marketing expertise as such. My proposal, which I believe would also be Kant s, is that neither of this attitudes captures the significance of the end to the means for marketing. A field of knowledge or a professional endeavor is defined by both the means and the end; hence both deserve scrutiny. Student need to study both how to achieve X, and also what X is.

F

It is at this point that ‘Arson for Profit’ becomes supremely relevant. That course is presumably all about means: how to detect and prosecute activity. It is therefore assumed that the *end* is good in an ethical sense. When I ask fire science students to articulate the end, or purpose, of their field, they eventually generalize to something like, ‘The safety and welfare of society,’ which seems right. As we have seen, someone could use the very same knowledge of means to achieve a much less noble end, such as personal profit via destructive, dangerous, reckless activity. But we would not call that firefighting. We have a separate word for it: *arson*. Similarly, if you employed the ‘principles of marketing’ in an unprincipled way, *you would not be doing marketing*. We have another term for it *fraud*. Kant gives the example of a doctor and a prisoner, who use the identical knowledge to achieve their divergent ends. We would say that one is practicing medicine, the other, murder.

Task 5: Skimming task (Time Limited)

First, use a variety of colored markers and colored pens and pencils to mark all the topic sentences and key points in every paragraph.

Second:

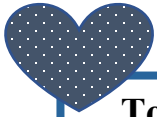
1. Write the topic sentence of every paragraph on blue colored table
2. Write some notes about the main idea of every paragraph on green colored table
3. Write all the keywords in the pink-colored table

Apply this instruction skimming task for passage 3 “what is the purpose of gaining language?”

Task Aim: This task is used to enhance the skimming skill of students. The purpose of the task is to use a variety of colors for students to make skimming the text much easier and more pleasant.

Write all of them in the following Tables below:





Topic sentence A

1.
.....

Main idea



A......
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.....
.....
.....
.....



Key words
.....
.....
.....



Topic sentence B

2.
.....

Main idea



B......
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.....
.....
.....
.....
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Key words
.....
.....
.....

Topic sentence C

3.
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Main idea

C.....
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Key words
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.....
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Topic sentence D

4.
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Main idea

D.....
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Key words
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Topic sentence E

5.
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Main idea



E.....
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Key words

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Topic sentence F

6.
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Main idea



F.....
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Key words

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.....

Task 4. Support for Skimming (Unlimited Time)

Try to draw pictures of the key points, main idea, central theme, or core concept of the reading passage. Try to draw rapidly to convey the central ideas as much as possible. There are two types of designed drawing pages, and selecting where you want to make your pictures in the given boxes is optional. Task four can be considered a supporting task for skimming, which can be done in an unlimited time by IELTS candidates.

Task Definition: The idea Sketching strategy involves asking students to draw the key point, main idea, central theme, or core concept being taught. It may be helpful to play the game Pictionary since students get used to the notion of making quick drawings to prepare them for this kind of drawing.

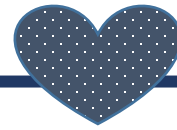
Task Aim: Rapid drawing to convey central ideas to emphasize a concept or to give the student the opportunity to explore an idea in greater depth.





Main ideas

- 1.....
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- 2.....
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- 3.....
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- 4.....
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- 5.....
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- 6.....
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- 7.....
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- 8.....
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- 9.....
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- 10.....
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- 11.....

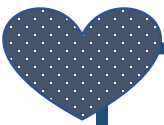


Key words

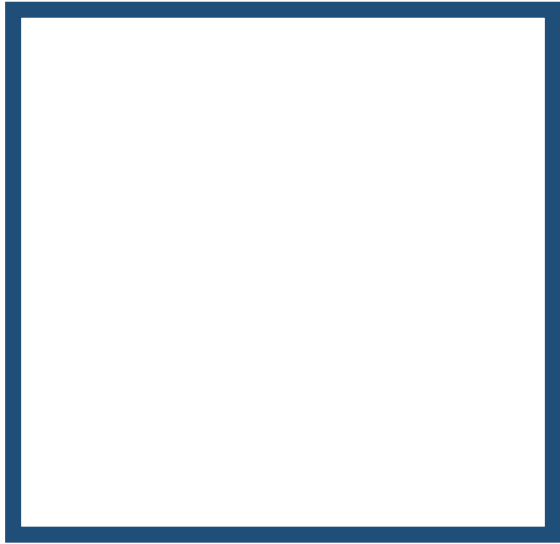
- 1.....
- 2.....
- 3.....
- 4.....
- 5.....
- 6.....
- 7.....
- 8.....
- 7.....
- 8.....
- 9.....
- 10.....
- 11.....
- 12.....
- 13.....
- 14.....
- 15.....
- 16.....
- 17.....
- 18.....

Main ideas pictures





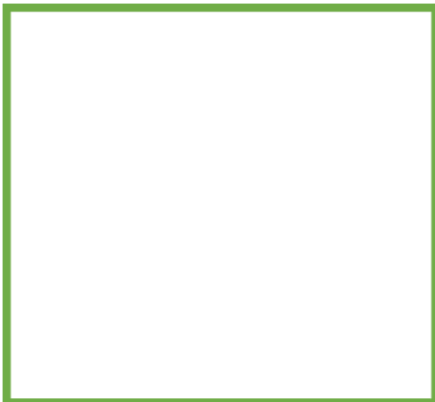
Key Words Pictures

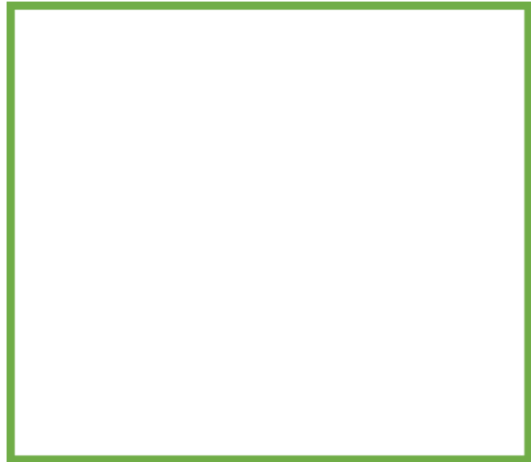


Task 6

Read the whole passage and think of some key points and the main concept and link them to an image; you should find this image or images through the internet and copy and paste these images into the given boxes. Then make some notes related to the main concept and the key points at the bottom of every picture.

Task Aim: “Picture metaphor” is thinking of the key points of the main concept and linking them to a visual image. Picture metaphor expresses the concept in a visual image. Picture metaphor establishes connections between what student already knows and what is being presented.







IELTS Candidate Name:

English Level:

Email Address:.....

Previous IELTS score.....

The last IELTS reading Score:.....

Art Specialist Name:.....

Art specialist score out of 10:.....

IELTS expert Name:.....

IELTS expert score out of 10:.....



Number of completed tasks:.....

Total Number:.....

Annexes

Findings of Artistic-Tasks Performances

In this study, visual artistic reading tasks were designed by the researcher considering the test formats and reading strategies like skimming and scanning, which mostly use by IELTS candidates. IELTS, candidates are permitted to do drawings tasks for 30 minutes in the class and 60 minutes for doing their art projects after class.

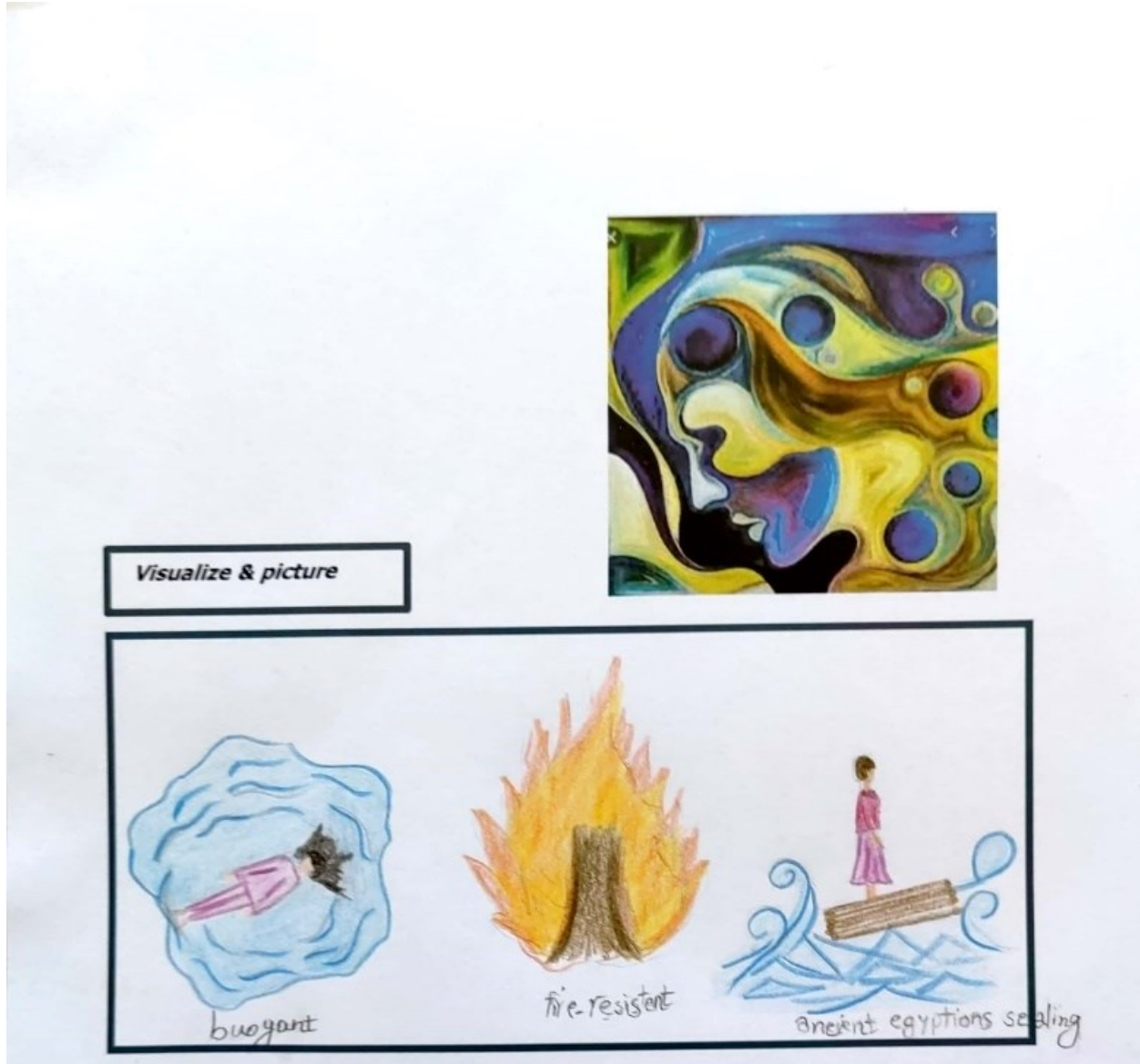
The findings indicate that IELTS candidates' engagement in the visual artistic reading tasks has been influential in promoting IELTS reading skills. The first designed task emphasizes the visualization of the whole passage and every paragraph separately and sketching the main idea or related themes, which assists readers in comprehending the text better. The pupils were instructed to visualize the mental blackboard on the paper. Thus, in doing this activity, learners can include in their pictures any spelling words, history facts, math formulas, and other data for completing their paintings. The readers were encouraged to use various colors using colored markers and pencils. They were recommended to use funny and comic things in their paintings whenever possible to make their drawings turn into an entertaining and joyful activity. They have the freedom to use their imagination to draw animation, cartoons, and fictional images in their paintings. The IELTS instructor asked them to make some notes at the bottom of their pictures related to the main topic or the theme. They were recommended to write a summary of every paragraph beside the pictures. This can support learners to be attached to the main concepts of the text when making drawings. They were permitted to use any signals and markers to highlight something in the text, sketch it, or remember it in the related painting. This task is considered to be unlimited in terms of the time for the task performance because the main goal of the task is to encourage IELTS candidates to read and visualize the text using their imagination ability freely and make their

drawings in a pleasant and relaxing setting with no limitation in time to help students to understand the meanings deeply and retain their knowledge of the reading text in their mind and have long-lasting learning.

Three passages are selected from Cambridge IELTS book 12, and the topic of the first passage is “Cork,” which is included in the Appendices. Student A, after reading the passage titled “Cork,” sketched her mental images of the primary topic of the whole text in the following picture:

Task 1: visualization and drawing the main idea of the whole text & every paragraph

In the first task, students are asked to sketch the main ideas of the whole text in one image. The IELTS candidate tried to sketch three conceptions related to the main idea of the whole passage, and she/he has indicated two features of the “Cork,” such as buoyant and fire resistant, in the picture in a beautiful way. In addition, she sketched a picture of ancient Egyptians sealed by their boats in her painting. It can be seen that drawing could be an effective strategy for learning two keywords and forming a mental image of the whole text in the reader’s mind.



In the second part of task one, IELTS students are asked to sketch the main idea of every paragraph or the main concepts related to the main idea of the paragraph.

The IELTS candidate, in paragraph A, indicated the ghost and the main idea of the paragraph by drawing an artistic and beautiful picture that refers to “Cork,” and the “Stone coffins” were sealed by the cork.

For the paragraph B, the IELTS student has made the following pictures in which she has employed diagrams and numbers skillfully and she/he also has made some notes beside the images to present the related concepts and meanings in a more expressive and qualified way. As it can be seen in the picture linked to the paragraph B the IELTS candidate sketched a diagram to assist her to memorize the numbers of the thickness of the cork on the surface of oak tree and she/he indicated the degree in which the Cork around the oak tree trunk is able to keep temperature inside the tree during a year. And she/he used numbers to present the information. She also added a comic picture which showed the concept of elasticity of the Cork artistically which makes her painting more exciting and entertaining.

Paragraph A

A

Cork the thick bark of the cork oak tree is a remarkable material. It is tough, elastic, buoyant and fire-resistant, and suitable for a wide range of purposes. It has also been used for millennia; the ancient Egyptians sealed their sarcophagi (stone coffins) with cork, while the ancient Greeks and Romans used it for anything from beehives to sandals.

Visualize & picture A

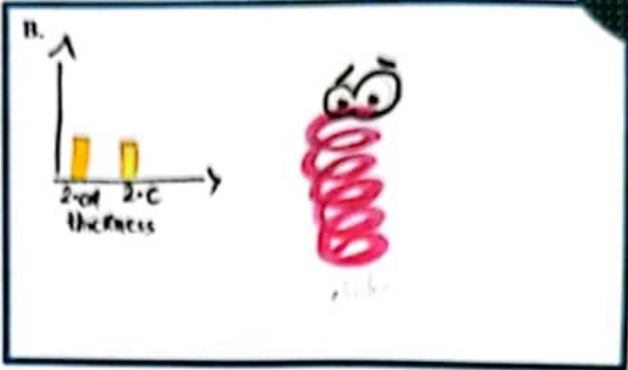


Paragraph B

B

And the cork itself is an extraordinary tree. Its bark grows up to 10 cm in thickness, insulating the tree like a coat wrapped around the trunk and branches and keeping the inside at a constant 10 C all year round. Developed most probably as a defense against forest fires. The bark of the cork oak has a particular cellular structure with about 40 million cells per cubic centimeter that technology has never succeeded in replicating. The cells are filled with air, which is why cork is so buoyant. It also has an elasticity that means you can squash it and watch it spring back to its original size and shape when you release the pressure.

Visualize & picture B



Paragraph C

C
 Cork oaks grow in a number of Mediterranean countries, including Portugal, Spain, Italy, Greece and Morocco. They flourish in warm, sunny climates where there is a minimum of 100 millimeters of rain per year, and not more than 1000 millimeters. Like grape vines the trees thrive in poor soil, putting down deep roots in search of moisture and nutrients. Portugal's Alentejo region meets all of these requirements, which explains why, by the early 10th century, this region had become the world's largest producer of cork, and why today it accounts for roughly half of all cork production around the world.

Visualize & picture C



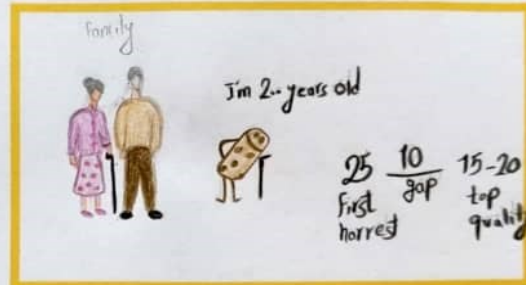
Paragraph D

D

Most cork forests are family-owned. Many of family businesses and indeed many of the trees themselves, are around 100 years old. Cork production is, above all, an exercise in patience. From the planting of a cork sapling to the first harvest takes 10 years, and a gap approximately a decade must separate harvests from an individual tree. And for top-quality cork. It's necessary to wait a further 10 or 15 years. You even have to wait for the right kind of summer's day to harvest cork. If the bark is stripped on a day when it's too cold- or when the air is damp- the tree will be



Visualize & picture D



Paragraph E

E

Cork harvesting is a very specialized profession. No mechanical means of stripping cork has been invented. So the job is done by teams of highly skilled workers. First, they make vertical cuts down the bark using small sharp axes, then lever it away in pieces as large as they can manage. The most skillful cork-strippers prize away a semi-circular husk that runs the length of the trunk from just above ground level to the first branches. It is then dried on the ground for about four months, before being taken to factories, where it is boiled to kill any insects that might remain in the cork. Over 70% of cork then goes on to be made into traditional bottle stoppers, with most of remainder being used in the construction trade. Corkboard and Cork tiles are ideal for thermal and acoustic insulation, while granules of cork are used in the manufacture of concrete.



Visualize & picture E



In paragraph C, IELTS candidates tried to show the Mediterranean weather, which is sunny and warm, and the tree's Cork oaks best flourish in this climate. She also included the number of minimum and maximum rain rates in millimeters per year in the Mediterranean countries in the diagram. She sketched a picture of a grape and the soil to refer to the grapevine trees, which can grow in poor soil with low moisture, like oak trees.

To visualize paragraph D, the IELTS learner employed numbers and formulas to remember the information better, and she sketched a comic shape which made her painting more attractive and interesting, especially when it was shared with other students. This comic picture refers to the fact that, sometimes, Cork Oak trees have 200 years old.

The idea of cork manufacturing as a family business is also depicted in a picture of a family. The figures illustrate that it takes 25 years from the planting of a cork seedling to the first harvest and that there must be a ten-year interval between harvests from different trees. Also, waiting another 15 or 20 years to make premium cork is essential, as noted in the remarks next to the image.

The picture related to the paragraph E, indicates how the IELTS candidates used numbers and shapes and sketched a circle to show the process of producing the product also she included the given time and the percentage and some given formation in the text beside the pictures.

In the picture she pictures of a skilled worker with a small sharp axe in his hand which indicated that how the first process of cutting down the bark and Cork is done manually by highly skilled workers or CORK strippers without any mechanical equipment. She pictures the second step of the process in the picture which is drying the pieces of corks on the ground under the sun and which takes about 4 months. And in the last pictures she refers to the percentage of cork which is about %60 used for making traditional bottle stoppers.




Task 2: Support for Scanning

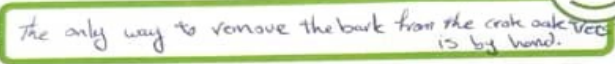

Task 2 is designed for practicing the scanning strategy of IELTS candidates when reading the text. The task is time limited because scanning the text and finding the necessary information to answer the True/False/ Not given test format is required to do in a specific time. In this task, some sentences were selected, and their source of information was in the passage entitled “Cork.” The IELTS candidates were asked to:


1. Write the correct answers in green boxes
 2. Write the false answers in pink boxes
 3. Write “not given” information answers in blue boxes
1. The Cork oak has the thickest bark of any living tree
 2. Scientists have developed a synthetic cork with the same cellular structure as natural cork.
 3. Individual cork oak trees must be left for 25 years between the first and second harvest.
 4. Cork bark should be stripped in dry atmospheric conditions.
 5. The only way to remove the bark from cork oak trees is by hand.

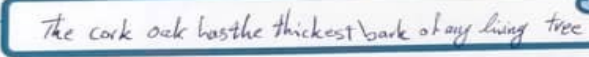
The Task Aim is to use various colored boxes to make it easier and more convenient to answer.

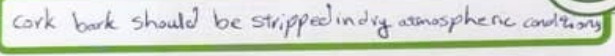

The “True/ False/ Not given” reading test makes providing the answer more pleasant to the takers.

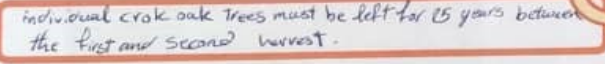
True  **False**  **Not Given** 

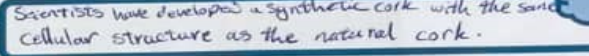
 The only way to remove the bark from the cork oak tree is by hand. 



 The cork oak has the thickest bark of any living tree

 cork bark should be stripped in dry atmospheric conditions 

 individual cork oak trees must be left for 25 years between the first and second harvest.

 Scientists have developed a synthetic cork with the same cellular structure as the natural cork.



Task 3: drawing for vocabulary learning

Task 3 focused on vocabulary learning using visualization and drawing tasks. The IELTS candidates were asked to read the whole passage and select and underline some known and unknown words and then draw a picture for it. This image could be a picture of the word itself or a concept related to the meaning of the word. They recommended writing down the meaning of the selected word under the image in the given boxes. In this part, IELTS candidates made some drawings of the vocabularies included in the in-text one titled “Cork.”

The task aim is to facilitate the process of vocabulary learning using the painting technique and turn it into a joyful and exciting activity that results in memorizing and long-lasting vocabulary learning. The time for completing the task is unlimited, and IELTS candidates can continue painting after class in their free time as a hobby or entertainment.



Unknown Vocabulary

1. buoyant.....
2. beehives.....
3. flourish.....
4. Sapling.....
5. lever.....
6. husk.....
7. phenol.....
8. biodiversity.....
9. chlorise.....
10. individual.....
11. desertification.....
- 12.....
- 13.....
- 14.....



Known vocabulary

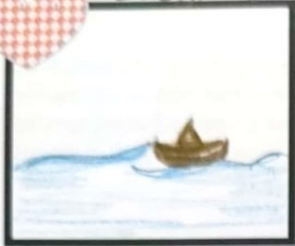
1. cork.....
2. bark.....
3. Defense.....
4. elasticity.....
5. Sail.....
6. moisture.....
7. factories.....
8. region.....
9. ancient.....
10. plastic.....
11. vertical.....
12. axe.....
- 13.....
- 14.....

Now: Draw some pictures for both known and unknown vocabulary that you found in the passage 'Cork' in the following designed pages and write down the vocabulary below every picture in the box.

Unknown Vocabulary



buoyant



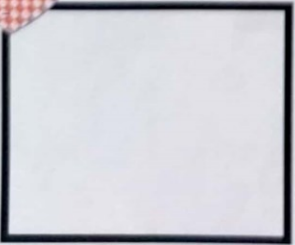
lever



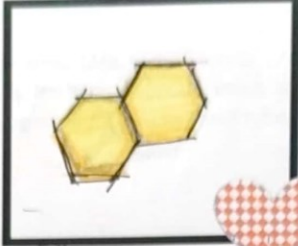
flourish



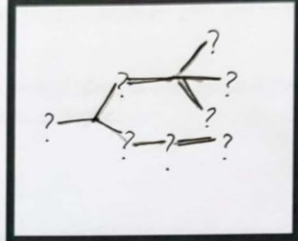
individual



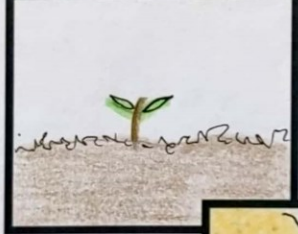
beehive



phenol



sapling



husk



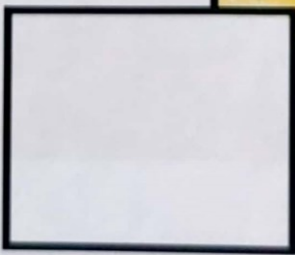
biodiversity



chlorine



desertification





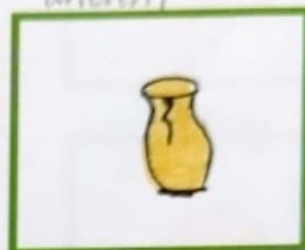
Known Vocabulary

region



ancient

cork



soil



moisture



Defense



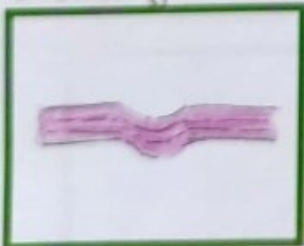
bark



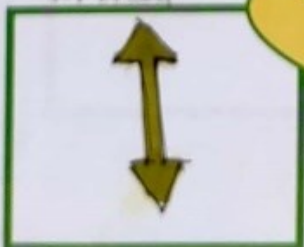
factories



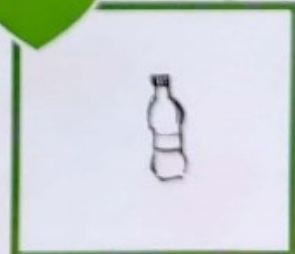
elasticity



vertical



Plastic



Task 3: Repeated Vocabulary Task 3

Read the whole passage and try to find the vocabulary which is unknown to you, underline each word and then draw a picture related to the meaning of the word to remember. This picture could be just related to the concept of the word not exactly the picture of the word itself.

Task Aim: This task helps students to learn variety of vocabulary using pictures. Drawing the pictures for learning vocabulary helps readers to remember the words permanently and helps for deep learning of the words.



Unknown Vocabulary


1. prosecution.....
2. presumably.....
3. ethical.....
4. uphold.....
5. noble.....
6. divergent.....
7. eradicator.....
8. requisition.....
9. hence.....
10. scrutiny.....
11. consists.....
12. assumed.....
13. supremely.....
- 14.....



Known vocabulary


1. institution.....
2. institution.....
3. university.....
4. law.....
5. Arson.....
6. profit.....
7. investigation.....
8. chain.....
9. court.....
10. philosopher.....
11. obvious.....
12. reckless.....
- 13.....
- 14.....

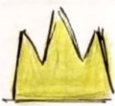
Unknown Vocabulary


Prosecution


Presumably

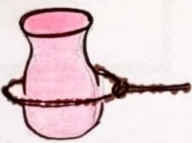

ethical



welfare


noble


divergent


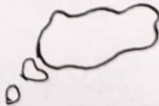
endeavor



acquisition


hence


scrutiny


consist


assumed


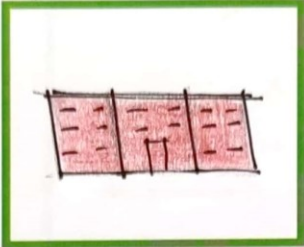
supremely




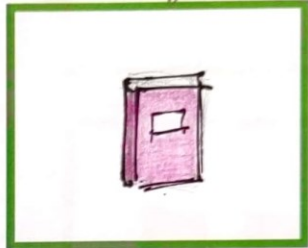


Known vocabulary

institution



university



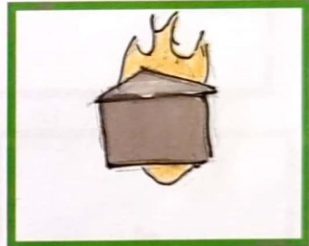
investigation



law



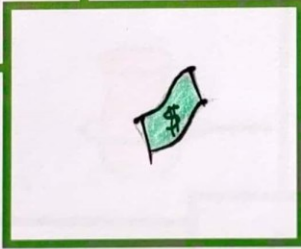
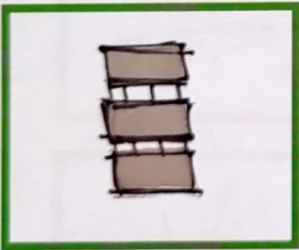
profit



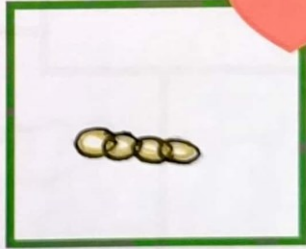
Arson



instruction



chain



philosopher



Court



reckless

obvious



During the time considered to the IELTS candidates for doing the visual reading artistic tasks in the classroom, they were permitted to talk and communicate with other students. It was seen that the IELTS candidates consulted and shared their ideas about their guessing of the meaning of the new vocabulary or unknown words and communicated and talked with other students about their conceptions of the meanings of the text in pair and within groups.

In drawing the selected words, the participants were permitted to sketch exactly the picture of the word or the concept related to or close to the word' meaning in an artistic way. IELTS candidates expressed that when they draw these pictures and symbols, they recall the vocabulary easier. It was obvious that drawing had a long-term effect on memory and retention of content, and this result is completely associated with the other researchers' achievements.

Task 4: Support for Skimming (Time limited)

In this task, IELTS candidates were asked to use a variety of colored markers and colored pens and pencils to mark all the topic sentences or the main idea and the keywords of every paragraph in passage three titled 'what is the purpose of gaining language?'.
Then, the pupils were instructed to:

1. Write a topic sentence for every paragraph on blue colored table
2. Write some notes about the main idea of every paragraph on green colored table
3. Write all the keywords in the pink-colored table

The Task Aim is to enhance the skimming skill of students. The purpose of the task is to use various colors and colored tables for students to make skimming the text much easier and more pleasant.

This task is very similar to the type of questions in the IELTS exam in that test takers during the exam find and underline the main idea in the text. This task made the process more pleasant

by using colored markers and colored boxes designed for that to make doing this task a fun and entertaining activity since using colors is always interesting and attractive. The IELTS candidates also were asked to highlight the topic sentence and the keywords included in the topic sentence and also make some notes about the main idea to assist them in understanding the concept on a deeper level. It seems that using these colored boxes would be entertaining and interesting to break the routine form of the test format.

What is the purpose of gaining knowledge?

A

"I would found institution where any person can find instruction in any subject." That was the founder's motto for Cornell University, and it seems an apt characterization of the different university, also in the USA, where I currently teach philosophy. A student can prepare for a career in resort management, engineering, interior design, accounting, music, law enforcement, you name it. But what would the founder of these two institutions have thought of a course called 'Arson for Profit? I kid you not: we have it on the books. Any undergraduates who have met the academic requirements can sign up for the course in our program in 'fire science'.

B

Naturally, the course is intended for prospective arson investigators, who can learn all the tricks of trade for detecting whether a fire was deliberately set, discovering who did it, and establishing a chain of evidence for effective prosecution in a court of law. But wouldn't this also be the perfect course for prospective arsonists to sign up for? My point is not to criticize academic programs in fire science: they are highly welcome part of the increasing professionalization of this and many other occupations. However, it's not unknown for a fire fighter to torch a building. This example suggests how dishonest and illegal behavior, with the help of higher education, can creep into every aspect of public and business life.

C

I realized this a new when I was invited to speak before a class in marketing, which is another of our degree programs. The regular instructor is a colleague who appreciates the kind of ethical perspective. I can bring as a philosopher. There are endless ways I could have approached this assignment, but I took my cue from the title of the course. Principle of Marketing'. It made me think to ask the students. 'Is marketing principled?' After all, a subject matter can have principles in the sense of being codified, having rules, as with football or chess, without being principled in the sense of being ethical. Many of the students immediately assumed that the answer to my question about marketing principles was obvious: no. Just look at the ways in which everything under the sun has been marketed; obviously it need not be done in principled (ethical) fashion.

D

Is that obvious? I made the suggestion, which may sound downright crazy in light of the evidence, that perhaps marketing is *by definition* principled. My inspiration for this judgment is the philosopher Immanuel Kant, who argued that anybody of knowledge consists of an end (or purpose) and a means.

E

Let us apply both the terms 'means' and 'end' to marketing. The students have signed up for a course in order to learn how to learn how to market effectively. But to what end? There seem to be two main attitudes toward that question. One is that the answer is obvious: the purpose of marketing expertise is to sell things and to make money. The other attitude is that the purpose of marketing is irrelevant. Each person comes to the program and course with his or her own plans, and these need not even concern the acquisition of marketing expertise as such. My proposal, which I believe would also be Kant's, is that neither of these attitudes captures the significance of the end to the means for marketing. A field of knowledge or a professional endeavor is defined by both the means and the end; hence both deserve scrutiny. Student need to study both how to achieve X, and also what X is.

F

It is at this point that 'Arson for Profit' becomes supremely relevant. That course is presumably all about means: how to detect and prosecute activity. It is therefore assumed that the end is good in an ethical sense. When I ask fire science students to articulate the end, or purpose, of their field, they eventually generalize to something like, 'The safety and welfare of society,' which seems right. As we have seen, someone could use the very same knowledge of means to achieve a much less noble end, such as personal profit via destructive, dangerous, reckless activity. But we would not call that firefighting. We have a separate word for it: *arson*. Similarly, if you employed the 'principles of marketing' in an unprincipled way, you would not be doing marketing. We have another term for it *fraud*. Kant gives the example of a doctor and a prisoner, who use the identical knowledge to achieve their divergent ends. We would say that one is practicing medicine, the other, murder.





Topic sentence A

1. I have found institutions where my person can find institutions in any subject...

Main idea

A institutions founder motto is to have all the subjects but the university's best thought a course called Arson for habit...



Key words

institutions...
Arson...
course...



Topic sentence B

1. The course is intended for prospective arson investigators...

Main idea

B dishonest and illegal behavior with the help of high schoolers can exp into every aspect of public and business life...



Key words

investigators...
life...
comparisons...



Task 5: Support for skimming (Unlimited time)

In task 5, the major details, main idea, and central theme, as well as the core concept of the reading passage, have been asked to be illustrated by the IELTS test takers. Try to draw rapidly to convey the central ideas as much as possible.

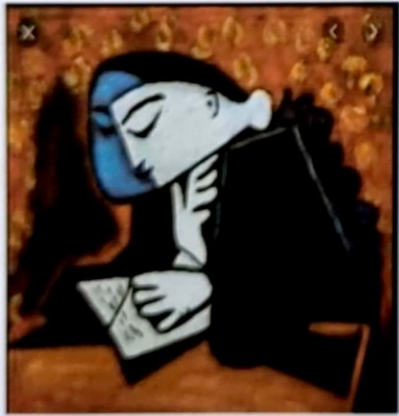
The notion of the key point, main idea, central subject, or fundamental concept being taught is drawn by the readers as a part of the sketching method. Pictionary is a game that kids may play used to sketching quickly, which may assist in preparing them for this style of drawing.

Rapid sketching is the task objective to underline a topic, convey key concepts, or provide the student the chance to go deeper into a notion.

In this task, the researcher tried to encourage IELTS candidates to make drawings and paintings of the main idea and the keywords they found in the text. In fact, visualizing and drawing strategies assist readers in understanding the main ideas of the text and comprehending the essential word meanings on a deeper level and also help them better understand the text and retention of content in the future.

Playing Pictionary with pupils may help them practice drawing quickly to convey the important concepts for this type of drawing. This will benefit them when they take the IELTS exam. This technique can be used to assess a student's comprehension of a subject, to emphasize a concept, or to provide students with plenty of opportunities to explore a concept in more detail. After the sketching exercise, it's crucial to examine the connections between the drawings and the topic.

Main ideas pictures





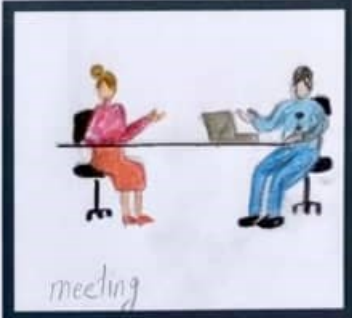
Key Words Pictures



make money



albums



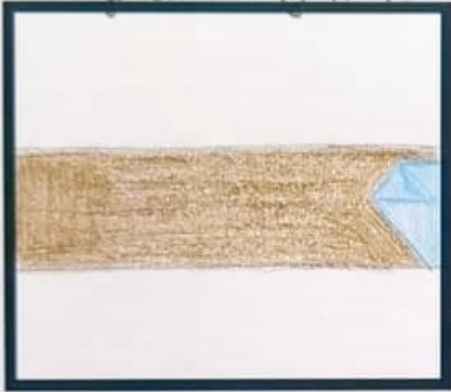
meeting



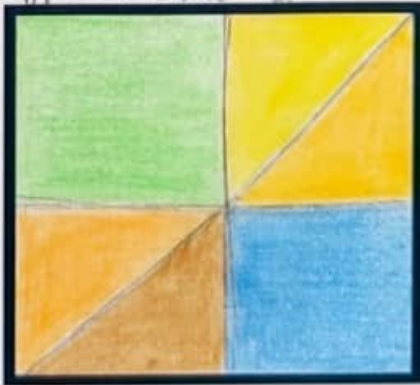
globe

Main ideas pictures

Finding something rare



Types of collecting



Task 6: Picture Metaphor

In task 6, “**picture metaphor**,” the pupils were asked to read the whole text and think of some key points and the main concept and link them to an image; They can find this image or images through the internet and copy and paste these images into the given boxes. Then make some notes related to the main concept and the key points at the bottom of every picture.

The task Aim of the “**Picture metaphor**” is to think of the key points of the main concept and link them to a visual image. The topic is expressed via a picture metaphor. Picture metaphor creates links between what the pupil already understands and the information being given.

In this task, the reader recognizes two main concepts as the main concept or the key points after reading the whole passage. The reader then, through searching the internet, selects two pictures which think are more relevant to the concepts.

The first main concept the reader inferred from the given passage is "Learning how to market differently," and the reader selects a picture of a man who reads books to learn about the marketing process. He chooses this image because it's the first mental image that comes to his mind and assists him in remembering the concept of learning. The second main concept that the reader comprehends from the passage is "Arson for profits a perfect course for arsonists," and the reader tries to relate it to the relevant image, which helps him to learn and memorize the concept better in his mind.

Using of photo elicitation has been increased because of many identified advantages (Lapenta, 2012).

One major benefit is that it allows for diverse and maybe richer perspectives than conventional interviews (Harper, 2002). According to Harper (2002), this is a result of the visual areas of the brain becoming active, and as a result, a higher degree of awareness is evoked.

(Gillies et al., 2005) claimed that Visual representations of emotions and experiences are easier to understand. Pictures "express a language of emotions and meaning," according to Vila (2013). Information obtained by picture elicitation is both qualitatively distinct and comprehensive (Mahruf and Shohel, 2012).

Photo elicitation also has the potential to be more powerful. In contrast to interviews, where the course of the conversation is set, picture elicitation gives participants more control as they select and justify their visual cues (Lapenta, 2012; Richard and Lahman, 2015; Bates et al., 2019). It's important to value student input: "Universities should place emphasis on what students want to say in their own words and integrate such feedback into their priorities." (Grebennikov & Shah, 2013). The possibility is raised by photo elicitation.

The third benefit of photo elicitation is that it makes candidates more interested and appealing (Frith and Harcourt, 2007; Lapenta, 2012). With a focus on making participants feel at ease and less like objects under study, it helps establish trust (Banks, 2008; Mahruf & Shohel, 2012).

In one recent research carried out by Paction & Kahu (2020), the photo-elicitation methodology, they requested that students pick four pictures to reflect their first year attending the university. The information and selected photos, as well as the learners' descriptions of selected pictures, have been analyzed in terms of theme. The emphasis was on the many metaphors they used to illustrate the three aspects of their experiences—life, school, and learning.

The students compared their experience to a rollercoaster and said they struggled to keep up with the fast speed of the courses. They identified themselves as information consumers who are only passive. The research made new recommendations for instructors and helped them recognize problems that could be interfering with students' first-year involvement. Knowing the

metaphors that guide their thinking and looking for fresh metaphors that may reveal alternative and more beneficial approaches to completing the first-year high school courses might be beneficial for both students and faculty.

Task 4

Read the whole passage and think of some key points and the main concept and link them to an image, you should find this image or images through the internet and copy and paste these images on the given boxes. Then make some note related to the main concept and the key points in bottom of every picture.

Task Aim: "Picture metaphor" is thinking of the key points of the main concept and link them to a visual image. Picture metaphor expresses the concept in a visual image. Picture metaphor establish connections between what student already knows and what is being presented.



learning how to market effectively



Arson for profit, a perfect course for arsonists