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Using Inquiry-Based Learning to Enhance Primary Stage Students' 21st Century EFL Literacy

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Abstract

The study aimed to examine the effect of using inquiry-based learning on enhancing 4th primary stage students' 21st century EFL literacy. The study begins with a review of the literature and previous studies about inquiry-based learning and 21st century EFL literacy. The researcher prepared a list of specifications of the 21st century EFL literacy components and performance indicators to guide the researcher to design study instruments. The researcher also designed a pre/post 21st century EFL literacy test and a rubric. The researcher developed the proposed program. Then, she nominated a random group of participants n=30 4th primary stage students at Manaret Heliopolis International School, Nasr City, Cairo, Egypt to participate in the study and its activities. Their ages ranged between 9 and 10 years old. The participants were submitted to a pre and post-test, and results were analyzed using the T-test and the effect size factor. Then, the scores were analyzed qualitatively and quantitatively, describing students' performance while conducting the study program and the pre/post-test. The results showed that inquiry-based learning effectively enhanced 4th primary stage students' 21st century EFL literacy.

Keywords: *Inquiry-based learning, 21st century EFL literacy*

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Chapter One

Background and Problem

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1.1 Introduction

Language is a channel to communicate, share and express meanings, feelings, ideas, and experiences. Thus, the importance of enhancing students' 21st century EFL literacy is crucial as it focuses on developing each student's ability to understand and use language, both spoken and written, as an integral part of learning in all areas.

Contemporary definitions of 21st century EFL literacy include more than basic reading and writing; conversely, negotiation, analysis, and raising awareness are as critical as understanding or creating a message. Consequently, 21st century EFL literacy cannot be only the ability to read and write; in contrast, it develops through interaction with others. This enhancement highlights the impact of integrating EFL literacy components with high-order thinking to deepen students' understanding and make learning a meaningful process. Moreover, learning as a social process constructed through actively interacting with others and the environment enhances students' confidence to communicate and share ideas, which is the key to life-long learning.

In this respect, EFL literacy cannot be dealt with as a simple linguistic code or even as a set of competencies; however, it should be a global language that people use to express their own identities and communicate easily with the world (Crystal, 2006). As a consequence of this new perspective, Fandino (2013) asserts that learners “need to become not only literate but also able to use that literacy within their information environment to succeed now and in the future.” In this context, 21st century EFL literacy implies being able to read deeply for meaning in multimedia content, handle appropriate software tools to process information, use practical and technical skills to communicate knowledge with multimedia, and know the ethical use of the information highway” (P.201). Therefore, integrating 21st century skills into ELT and ELL became crucial because of its enormous importance on students' working and academic life (Varis, 2007).

Due to the importance of implementing information and media literacy in EFL literacy, Webber (2013) emphasizes that using technology enables students to deepen their understandings and construct meaning by providing easy access to various expressive modes while being engaged in reading and writing activities. Moreover, Pytash, Ferdig, Kist and Kratcoski (2013) agree that using technology enables us to bring multiple texts into the classroom to enhance students' critical thinking, which

creates opportunities for them to move past being passive readers and engage in critical conversations that will help them enrich their knowledge and make new connections, but also it will deepen their learning experiences. Ultimately, Karchmer-Klein and Shinas (2012) state that teachers who have concerns about the role of technology in the classroom “must set aside those concerns and replace them with the knowledge that, when taught well, new literacies can support and extend students’ abilities to read and write for real purposes” (p. 293).

To support previous claims, Kustini et al. (2018) accentuate the dramatic expansions of Information and Communication Technologies (ICTs) nowadays. Its vast impact has altered the patterns of people’s learning, working, socializing, and interacting. These substantial changes have had an enormous influence on the nature of students’ learning and thinking as they are quickly able to access various information and acquire knowledge from their networked digital devices in just one short touch. Therefore, they suggest that multimodal-based instruction is beneficial to develop students’ language skills, motivation, and engagement in learning and enhance their critical awareness capabilities.

By way of illustration, Huang (2017; as cited in Kustini et al. 2018) highlights the importance of critical multimodal literacy pedagogy implementation in English language curriculums supporting the claim that multimodal practices could improve students’ critical literacy awareness through comprehending, interpreting texts, and taking a critical stance towards them. This proves that multimodal-based instruction which focuses on images, sounds, and words can help students improve their critical thinking skills.

Furthermore, Gerlott and Gronlund (2013) examined the impact of using ICT (Information and Communication Technologies) on improving 1st-grade students' writing skills through using the "Integrated Write to Learn" method (iWTR). They confirmed that students’ reading and writing skills improved considerably. They noticed that students in the test group wrote longer texts with better structure, clearer content, and more elaborate language. Besides, iWTR provides learners with an authentic opportunity to collaborate and receive constructive feedback from their peers.

Consequently, Crowther, Hamilton & Tett (2001) emphasize that literacy, in general, is bounded by the context in which it is used, and this gives rise to a plural view of literacy. This illustrates that learning occurs at home, work, school, leisure, and community contexts. Through these varied contexts, students can combine both their educational experiences with their real-life experiences. This will enhance their

EFL literacy skills and compensate for low levels of education through learning beyond formal contexts. In this perspective, a study conducted by Goldenberg and Friedlander (2016) in Rwanda emphasized that school only does not have a sufficient impact on students' learning. On the other hand, involving families and communities creates more significant numbers of readers who read fluently and comprehend. Moreover, Smith (1996) suggests that students exposed to various print contexts will demonstrate higher literacy proficiency than those exposed to the school curriculum only.

To boost students' motivation and maintain a rich learning environment, great attention has been given to authentic learning to promote EFL literacy in the 21st century by practicing and experiencing it in several varied contexts, according to Purcell-Gates et al. (2007) has “real-world relevance.” Thus, Pearce (2016, p. 1) defines authentic learning as “learning designed to connect what students are taught in school to real-world issues, problems, and applications; learning experiences should mirror the complexities and ambiguities of real life. Students work towards producing discourse, products, and performances that have value or meaning beyond success in school.”

Accordingly, the implementation of media information literacy (MIL) in ELL and ELT in the 21st century doesn't only emphasize that the use of media products of the English-speaking countries (which are available through television, radio, social media applications, etc.) into EFL classrooms can introduce students to authentic language use. On the other hand, introducing media information literacy critically require teachers to engage students in various activities that enable them to question what they hear, watch, read and learn (Arikan, 2002). That is why authentic learning, according to Revington (2015), “is real-life learning. It is a style of learning that encourages students to create a tangible, useful product to be shared with their world.” Based on the former perspective, students will not memorize content and demonstrate understanding through a multiple-choice test. However, under the umbrella of authentic learning, they will be actively participating “in identifying questions and problems, brainstorming solutions, and responding and adapting to failure until they are successful in addressing a need or creating a final product” (Brooke, 2019).

Though authentic learning can take myriad shapes and can vary in its approach, more than anything else, authentic learning makes students more engaged in the learning process because it makes learning more relevant and meaningful to them. That is why questions like ‘Why are we learning this?’ or ‘When am I going to use this in real life?’ will not be heard again in the classroom. Furthermore, Wornyo, Klu

and Motlhaka (2018) conclude that students' ability to acquire academic literacy skills is improved through authentic learning tasks and activities that enable them to perform authentic tasks like academic presentations and seminars.

It is crystal clear that students nowadays need to be taught differently; they are more likely to have ownership of their learning and challenge their abilities to grow. Therefore, traditional teaching has no place; as educators know, equipping students with critical thinking, creativity, communication, and collaboration is the way to prepare students to be international citizens, be challenged in their careers, and question everything around them. Thus, the need for such learning that arouses students' needs and questions over teachers' provided curriculum is crucial (Saqlain, 2016).

Due to the importance of 21st century EFL literacy, the researcher investigates a different alternative to enhance 4th primary stage students required 21st century EFL literacy components through utilizing inquiry-based learning. Because it emphasizes students' roles in the learning process, students are encouraged to explore the material, ask questions, and share ideas. Consequently, the researcher highlights the importance of comprehension and implementation of high-order thinking skills to enable students to have meaningful learning experiences. This clarifies Goertz's (2015) definition of inquiry-based learning as a "student-directed, interest-driven approach to new knowledge." Generally, it is an innate style of learning that takes place in natural learning contexts where students collaborate to discover new concepts and make sense of what goes on around them.

In this respect, inquiry-based learning uses different approaches to learning, including small-group discussion, differentiated instruction, visible thinking, and guided learning. Instead of memorizing facts and material, students learn by doing. This allows them to build knowledge through exploration, experience, and discussion (Guido, 2017). In this context, Aulia, Poedjiastoeli, and Agustini (2017) confirm that using a guided inquiry model in teaching 11th-grade students has helped them improve their science literacy, construct deep conceptual understandings, and obtain positive attitudes towards learning as well.

Not surprisingly, questions are at the heart of inquiry-based learning. They do not only drive inquiry; however, they provide evidence of students' understanding. The more questions tend to be open, reflective, complex, and arguable, the more they reflect the deepness of the concepts obtained by students (Allen & Hill, 2016). Therefore, fostering a culture of inquiry will enable students to become observers and thinkers. This will deepen students' critical thinking skills and arouse their curiosity.

This spots light on students' demands in the 21st century, as knowledge became accessible at their fingertips; they face a flood of information that requires a critical mindset to question and evaluate (Scheer, 2015). In this respect, inquiry-based learning enables students to “use relevant questions to evaluate and analyze media messages and to reflect on the media they create” (Rogow, 2011, p.18). This effectively engages discussions and allows students to consider their opinions as they take in new information and hear others' perspectives. To approach this level, teachers should model media analysis by using questions to lead deep readings. Furthermore, inquiry-based learning can promote students' information literacy by providing opportunities to analyze, reflect and evaluate information through asking questions and investigate real-life problems. This certainly will enhance students' attitudes towards learning, develop self-directed learning, and improve their knowledge (Hmutra, 2016).

In this context, Davies (2019) affirms that using inquiry-based learning in EFL/ESL classrooms is highly effective, as it gives students the chance to fill in the gaps in their knowledge and spend quality time through discussions and collaboration. Actually, it works on constructing meaning and reflecting on what they have learned and how they have learned as well. This provides an excellent benefit for students, enabling them to raise their self-awareness, be more autonomous, and enhance their linguistic skills. At the same time, they are actively engaged in various collaborative activities that will undoubtedly boost their speaking fluency, reading comprehension, and written production.

Therefore, inquiry-based learning enables students to express themselves freely and construct their knowledge in and outside school borders through having the freedom to share ideas and ask questions. This contributes to enhancing students' speaking performance and their writing performance as well. Thus, when students are given time to think silently, to jot down their ideas, to be exposed to various reading texts, and to make their thinking visible through thinking deeply using different thinking routines, this helps students generate ideas, enrich vocabulary, organize thoughts, and build a writing habit which creates positive attitudes towards learning in general and EFL literacy in specific.

1.2 Context of the problem

As for English language teaching and learning in Egypt, it is noticed that teachers tackle language as chunks, not as a whole unit. That is why they still complain about their students' performance and their inability to fit into the required academic level based on the standards specified for each grade level.

A study conducted by Huang (2014) on early years teachers regarding their beliefs about the whole language approach and how it can affect EFL literacy learning concludes that most EFL teachers neither prefer the whole language approach nor the traditional skill-based approach, and they prefer to blend both of them.

These changes shed people's attention on a new up-rising term called "Balanced Literacy," which was first introduced in the 1990s when teaching the English language was either the whole language or phonics instruction (Jordan, 2017). Compared to instructional literacy that includes phonics, phonemic awareness, fluency, vocabulary, comprehension, oral language, and writing, balanced literacy came to find a better balance by mixing the two extremes. However, as the years have passed, it has come to mean much more than just finding a good blend between whole language and phonics-based instruction.

In this context, balanced literacy includes balancing these three essential components when teaching reading and writing: Teacher models (I do) through using read aloud, word study, and shared reading and writing strategies; teacher supports learners as they practice it (we do) through using guided reading and writing, strategy lessons and conferencing one-on-one with learners; and learners work independently (you do) through independent reading and writing workshops (HPISD, 2017). Conclusively, the teacher's role is to decide where to go next, when to intervene and when not to; when to draw children's attention to specific features of the text; and how to model and explain strategies in ways that can enable children to make their connections.

New challenges emerged during the COVID-19 pandemic, especially after the transition to online learning. This urged many educators and researchers to question current teaching practices and what students need to cope with their world nowadays successfully. Mayhoob (2020) points out that EFL learners faced many challenges due to the lack of digital literacy, including how to deal effectively with digital tools and how to use them to collaborate with other students and their teachers to practice the English language. Besides, Islam (2016; as cited in Hossain, 2021) assures the substantial importance of enhancing the ICT skills of the EFL learners and the creations of a society enriched with information availability. In addition, Hossain (2021) highlights the challenges faced by teachers while delivering their EFL lessons online regards how to assess students' online and how to enhance students' linguistic components to make sense of what they read and hear in the target language and deliver their ideas clearly through different oral and written tasks.

That is why helping students be self-regulated will require enhancing their thinking skills to adopt different strategies that can improve their 21st century EFL literacy. Thus, the need to use different strategies that enable students to think, generate questions, create, collaborate, and communicate with each other is crucial. This illustrates the need for teachers whose mindsets are changed to fit with the current updated educational trends. Therefore, Deppeler & Ainsow (2016) confirm that schools worldwide are facing a lot of demands to raise performance standards, narrow students' performance gaps, and provide challenges for the gifted at the same time. Thus, to meet schools' needs in the 21st-century, teachers must develop the capacity to match the current requirements. Therefore, it is essential to conduct more studies on improving new literacies, including information literacy, media literacy, and multimodal instruction using inquiry-based learning as a way that can scaffold students to go beyond the text they read or write and reflect on their new experiences through getting engaged in myriad inquiry activities of different inquiry levels like; open inquiry, guided inquiry, and structured inquiry.

In support of the form perspective, a study conducted on English Department students at Ain Shams University to enhance their critical thinking using a blended program based on the Community of Inquiry, Zedan (2017) highlights that student teachers have no idea about critical thinking. They always complain about the shortage of time, lack of materials, and training programs that focus on critical thinking. Besides, Wahdan (2020) illustrates that most university English instructors at Al-Azhar University need professional development regards how to assess students for learning and set real-life situations where students can apply and reflect on their learning. Besides, how to use inquiry-based learning strategies effectively so they can improve students' performance and English language proficiency.

Furthermore, AbuRezeq (2018) illustrates that Al-Azhar University students' writing performance is almost poor due to ordinary teaching techniques, and concludes that using inquiry-based learning helped them to improve their writing performance and to show positive reflections towards learning, as it made them able to generate deeper questions, develop ideas, interpret, analyze and criticize the content they deal with. Similarly, El Ramly (2018) emphasizes that before utilizing inquiry-based learning to improve second preparatory stage students' writing performance, they state that writing was boring for them as they depend mainly on memorizing sentences. Also, teachers do not give them concrete instruction on improving their writing skills regarding organization, content, mechanics, conventions, and style.

In addition, Hussein (2020) affirms that preparatory stage students lack essential critical literacy components due to the exam-oriented education system applied in the Egyptian context. In this context, she agrees that students nowadays are digital natives surrounded by a massive amount of information. Therefore, a dramatic alternation is needed in EFL teaching and learning to support students' demands in the 21st century by allowing them to question, interpret, analyze, and evaluate the information they read, hear, and watch in various authentic contexts by communicating their ideas and constructing meaning collaboratively.

In conclusion, there are numerous studies investigated inquiry-based learning to test its effect on enhancing reading, writing, and thinking skills. However, just a few studies have attempted to examine the effect of using inquiry-based learning on enhancing 21st century EFL literacy components, especially in upper elementary grades with its broader scope, which emphasizes the integration of new literacies (information literacy, media literacy, and multimodal instruction) into EFL literacy curriculums to make learning meaningful and more life-based. Thus, this study will focus on investigating using inquiry-based learning to enhance 4th primary stage students' 21st century EFL literacy components.

1.3 Pilot study

The researcher designed a semi-structured interview, a diagnostic general English language test and a semi-structured survey for fourth primary stage students. Besides, another semi-structured survey for teachers checking their awareness and practices of implementing 21st-century components into students' EFL literacy and their online learning experiences during COVID-19 were conducted to illustrate students' and teachers' attitudes, challenges, areas of weakness as well as comparing students' general level to grade four common core state standards learning outcomes (Appendix G).

First, the researcher surveyed 35 English language teachers, and they were asked the following questions:

- 1- What is the most common academic problem that you face while teaching to upper primary stage students?
- 2- What is the most problematic area of your performance that needs development?
- 3- While conducting your session, what do you find hectic?

- 4- According to your understanding, what is meant by EFL literacy, and what is its relation to the 21st century?
- 5- What activities do you use to enhance EFL literacy?
- 6- What kind of assessment strategies do you use to assess EFL literacy?
- 7- To what extent are you satisfied with the content you teach? If your answer is less than 4, what do you think you can add to modify your teaching content?
- 8- After delivering the entire content online, what teaching strategies and skills do you need professional development at?
- 9- List some of the challenges you faced while teaching online.

Survey results showed that 66% of language teachers' most academic problem while teaching to upper primary stage students is that they cannot express their thoughts through writing. Also, 41% of teachers stated that they need professional development to help them enhance students' thinking skills, while 31% mentioned that they need professional development in teaching writing. Moreover, 34% stated that they need help to scaffold weak students. Besides, when teachers answered the open-ended questions about EFL literacy, some of their answers show sufficient knowledge about the term. In contrast, most of their choices of the challenges they face and the areas they need development at showed that they still need to enhance their abilities to help students go beyond EFL literacy, in its traditional concept, as enhancing students' reading and writing skills. Furthermore, 16% of teachers confirmed that they need intensive training to implement 21st-century skills in students' EFL curriculums.

Moreover, the majority of teachers illustrated that after delivering their lessons online, they still need professional development in:

- 1- How to deliver multi-modal content and help students have multi-modal production (including all modes audio, video, text, movement, gestures sound, etc.);
- 2- How to improve students' information literacy (To be able to understand, analyze, connect and evaluate the information they read online/offline);
- 3- How to help students collaborate with their friends in Zoom sessions.

Besides, they listed that they faced the following challenges while delivering online sessions:

- 1- Poor students' ICT skills and technical problems that hinder students from communicating effectively with their teachers and other students.
- 2- Students' demotivation.

- 3- Assessing students online, as most students are not committed to submitting their work online. Besides, finding assessments online is a challenging task.
- 4- Students cannot deal comprehensively with online resources, which indicates that they lack the research essential skills for having self-regulated and lifelong learning.

Furthermore, the researcher interviewed n= 30 4th primary stage students at Manaret Heliopolis International School, and they stated the following:

1-80% of the participants confirmed that they have difficulties to do the following:

- The ability to figure out the meaning from context
- Comprehension, including the ability to fully understand the text
- Fluency, including speed to finish reading a given text
- Accuracy, including the ability to write correctly

2- When they were asked if they like reading and writing on electronic devices, 80% stated that they enjoy reading on their tablets, while 20% only find it enjoyable to write on the computer.

3-When students were asked if they like an adult to help them while reading and writing, 70% of participants' answers showed that they are not independent learners and need an adult, either a teacher or their parents, to read and write for them.

In addition, during students' online learning experience period, they noticed that they need to improve their research skills, their general ICT skills (like using Word, PPT, Paint, Video maker), in addition to enhancing their ability to understand, analyze and connect the information they read online/offline. The researcher also summed up the challenges students faced while learning online, as follows:

- 1- Sessions were boring, as they lack the interactive features to engage students.
- 2- Technical problems hindered effective communication between students and teachers.
- 3- Online assessments were challenging and hard to access due to students' limited ICT skills.
- 4- They face difficulties deciding which resources to use while searching online, knowing if the information they get was accurate or not, and how to do research tasks independently and keep themselves safe online.

Added to the previous findings, students' general linguistic components in the English language were below the expected grade four common core state standards

learning outcomes as found in their English language diagnostic test results. This proved that students had weaknesses in their EFL literacy in general as well.

1.4 Statement of the problem

There is a noticeable weakness in 4th primary stage students' abilities to comprehend reading texts, to deal critically with awareness with what they generally view (reading text/ videos/ posts) either offline or online and to communicate their understanding in various contexts using a variety of media and modalities. That is why the researcher suggested a program based on inquiry-based learning to enhance 4th primary stage students' 21st century EFL literacy required components, as a step to move beyond basic literacy (reading and writing) and prepare students to be successful digital citizens in the current era.

1.5 Study questions

In order to solve this problem, the researcher attempted to answer the following main question:

“What is the effect of using inquiry-based learning on enhancing 4th primary stage students' 21st century EFL literacy?”

This main question elicits the answer of the following sub-questions:

- 1- What are the required 21st century EFL literacy components?
- 2- What are the inquiry-based learning program components?
- 3- What is the effect of the suggested program based on inquiry-based learning in enhancing 4th primary stage students' 21st century EFL literacy based on grade-level Common Core State Standards (CCSS)?

1.6 Aim of the study

The research aims to enhance 4th primary stage students' 21st century EFL literacy components by using inquiry-based learning to deepen their understanding of what they read and write, elevate their abilities to think critically and highlight the importance of collaborative learning by exploiting various learning and teaching strategies.

1.7 Significance of the study

1- For Learners: The study emphasizes the importance of dealing with language as a whole, not divided into chunks, in addition to the importance of using inquiry as a way to make students construct their knowledge and create their own learning experiences.

2- For instructors: They can use the suggested model and activities to improve the learners' 21st century EFL literacy components.

3- For Curricula Developers: They can put the research results into consideration when they design activities or curricula for pupils.

4-For researchers: This study opens the doors for researchers to look for, develop and adopt up-to-date strategies that assist the learning process.

1.8 Hypotheses of the Study

The current study attempted to validate the following hypotheses:

1- There is a statistically significant difference between the mean scores of the study group on the pre- and post-applications of the 21st century EFL literacy as sub-components in favor of the post-test scores.

2- There is a statistically significant difference between the mean scores of the study group on the pre- and post-applications of the 21st century EFL literacy as a total score in favor of the post-test scores.

1.9 Delimitations of the study

This study will be delimited to:

- 1.A group of 4th primary stage students (n=30) at Manaret Heliopolis International School.
- 2.The second semester of the academic year (2020-2021).
- 3.Some 21st century EFL literacy components which are necessary and appropriate for fourth primary stage students, including information literacy, media literacy and multimodality.
- 4.An inquiry-based learning program that includes generating questions, differentiated instruction, thinking routines, and collaborative learning.

1.10 Definition of terms

1.10.1 21st century EFL Literacy

According to Crowley (2015), integrating 21st-century skills into EFL literacy emphasizes “the ability to combine the subject you’re learning, with the skills and awareness that needed to apply knowledge of the subject successfully in various new authentic contexts.” In the light of the previous claim, he sums up that EFL literate students in the 21st century should be able to:

- Analyze, synthesize and evaluate materials written in English
- Develop a “voice” on a topic and express it in English
- Research materials and solve problems that are presented in English
- Be creative in English and take communicative risks in pursuit of fluency
- Collaborate in diverse international teams, and communicate in English
- Respect global cultures and sensitivities
- Use software to express themselves in English
- Navigate digital content that is presented in English
- Have the self-discipline to study English independently and “learn how to learn.”

In the present study, 21st century EFL literacy refers to the students’ ability to go beyond reading and writing by comprehending and dealing critically with awareness with what they view (reading text, videos, posts, etc.) either offline or online. Besides, being able to communicate their understanding in various contexts using a variety of media and modalities. Therefore, implementing new literacies like information literacy, digital literacy, media literacy, web literacy, and multimodality in the EFL curriculums has become crucial nowadays.

1.10.2 Inquiry-based learning

According to Kidman (2019), inquiry-based learning “emphasizes students’ role in the learning process questioning an idea or topic in an active way, rather than sitting and listening to a teacher. In general, the aim of the inquiry-based approach is to help students make meaning of what they are learning and to understand how a concept works in a real-world context.”

In this study, inquiry-based learning is used to enable students to question the texts they are going to deal with and arouse their curiosity to construct meaning by giving them a chance to explore different authentic materials and share ideas with their peers.

1.10.3 Common Core Standards

California Department of Education (2010) assures that the Common Core State Standards are “a set of high-quality academic standards in mathematics and English language arts/literacy (ELA). These learning goals outline what a student should learn and do at the end of each grade. They were created to ensure that all students graduate from high school with the skills and knowledge necessary to succeed in college, career, and life, regardless of where they live” (P.2).

In this study, these standards are used as a guideline for the researcher to determine the required English Language literacy components for 4th primary stage students.

The remainder of this dissertation will be organized as follows:

Chapter Two: Review of Literature and Previous Studies.

Chapter Three: Methodology.

Chapter Four: Analysis and Discussion of Results.

Chapter Five: Summary, Conclusions, and Recommendations.

Chapter Two

Review of Literature and Related studies

Chapter Two

Review of Literature and Related studies

This chapter presented a theoretical overview of the literature and related studies, and it was divided into three main parts. Part one discussed 21st century EFL literacy, including the development of the term over decades, especially after the Coronavirus pandemic, its core components, how they could be assessed, and previous K-12 programs applied in different countries implementing 21st-century skills in their EFL literacy programs. Then, part two covered inquiry-based learning, a rationale for using inquiry-based learning in K-12 stages, and its main effective strategies. At last, part three focused on expected learning outcomes and challenges of using inquiry-based learning to enhance 4th primary stage students' 21st century EFL literacy based on previous studies in English language teaching and learning.

2.1 21st century EFL literacy

Previously, EFL literacy was considered as the ability to read and write print texts; this idea has been expanded to incorporate 'multiliteracies or 'new literacies,' which include print, digital, visual, audio, gestural, and spatial ways of communication, in both English and other languages (Cope & Kalantzis, 2009). In this respect, Leu, Kinzer, Coiro, and Cammack (2004; as cited in Webber, 2013) defined "new literacies" or "multi-literacies" as "skills, strategies, and dispositions necessary to successfully adapt to the changing technologies that influence all aspects of our personal and professional lives. These literacies allow us to use technology to identify questions, evaluate and synthesize that information, and communicate to others".

Based on the above assumptions, The National Council of Teachers of English (NCTE, 2013) illustrated that active, successful global participants in the 21st century must be able to:

- Manage, analyze, and synthesize multiple kinds of information
- Design and share information for global communities
- Build intentional cross-cultural connections and relationships with others
- Develop proficiency and fluency with the tools of technology
- Create, critique, analyze, and evaluate multimedia texts
- Attend to the ethical responsibilities required by complex environments

This is also echoed in the Common Core Standards (2010), which illustrated that student from KG to grade12 must “employ technology thoughtfully to enhance their reading, writing, speaking, listening and language use” (p.7) to be ready for career and college. This asserted that students must have varied opportunities to develop their literacy practices and ICT skills to be not only consumers, but producers of multimedia texts. Therefore, students must acquire and develop skills that will enable them to read, write, and critically think about multimedia texts.

Consequently, this period witnessed a dramatic technological change in Information and Communication Technologies (ICTs), which reshaped EFL literacy in the 21st century. For this reason, educators should carry out the responsibility of integrating new digital contexts in students’ curriculums through making use of available digital tools to ensure that education provided is relevant and meets the demands of today’s society (Giron-Garcia, 2015) and “enable teachers and students to access specialized materials well beyond textbooks, in multiple formats and in ways that can bridge time and space” (Schleicher, 2020). Moreover, integrating technology would enable students to build communities of learners that make learning more social and more fun, assist teachers in sharing and enriching their teaching resources and practices, and also collaborate to grow professionally, as well as help system leaders and governments develop and share best practice around curriculum design, policy, and pedagogy.

Because of this, the emerging of Coronavirus stressed the crucial importance of mastering 21st-century skills and being digitally literate to succeed in today’s world, whereas the ones who were not ready for such change have been eliminated and lost their jobs. Besides, the vast transformation that took place has affected schools as they shifted from providing face-to-face education with slight support of digital tools to entirely using online platforms to keep social distance and provide their content (Anderson, 2020).

By way of illustration, a case study conducted by Basilaia and Kavadze (2020) in Georgia on a private school with 950 students after the Coronavirus pandemic and the transition to online education had shown the following results:

- Online education was statistically successful, and students were engaged in the learning process.
- Students became more autonomous, and they made use of their teachers’ provided feedback as they spent a considerable period of time checking assignments and doing researches.
- During this period, skills gained by teachers can be used to solve other issues like missed classes or other similar cases after the pandemic ends.

- Traditional standardized tests to assess students became no longer applicable to this period of time, and they were shifted to be either open book exams and/or research papers.
- The quality of online education provided still needs study as time was not sufficient, and the main goal was to save the education process and keep it in any possible format.

Similarly, after applying online education in an International School in Italy, some more findings have been noticed, such as:

- Being forced to transmit lessons online had allowed learners to participate actively and do more learning about basic skills and knowledge at home, left class time to work on higher-level skills such as analysis and evaluation.
- Using software like Microsoft Teams allowed teachers to see students during the writing process, and this allowed more real-time for feedback.

This proved that “students will take ownership over their learning, understanding more about how they learn, what they like, and what support they need. They will personalize their learning, even if the systems around them will not” (Anderson, 2020).

Therefore, Schleicher (2020) confirmed that “real change often takes place in deep crisis, and this moment holds the possibility that we will not return to the status quo when things return to normal.” That is why in this age of accelerations, attention should be given to “what makes us first-class humans, how we complement, not substitute, the artificial intelligence we have created in our computers, and how we build a culture that facilitates learning, unlearning and re-learning throughout life” (p.5).

2.1.1 21st Century EFL literacy needs

Based on the above claims, it became crystal clear that implementing critical thinking, problem-solving, and cross-disciplinary approaches in curriculum design to all K-12 students is a crucial need in the 21st century to empower young generations to fit in this rapidly evolving labor market in the future. That is why according to Arsi (2019), success in the 21st century required “more than the ability to turn on a computer or use a smartphone. It requires creativity, innovation, communication, critical thinking, digital citizenship, and information fluency” (P. 335).

2.1.1.1 Basic EFL Literacy and 21st Century EFL Literacy

However, a great attention was given to advanced literacy, Reardon et al. (2012; as cited in Fossum, 2013) highlighted the importance of basic literacy and explained that literacy in its basic form consisted of "word -reading skills and knowledge-based literacy competencies" (p.18). Word-reading skills include letter recognition, beginning sounds, ending sounds, sight words, comprehension, and words in context, while knowledge-based competencies include evaluation, making connections, understanding writing style, critically evaluating nonfiction, comparing and contrasting, and evaluating complex syntax and vocabulary.

Because of the rising demands that asserted the curial need to enhance upper elementary students' 21st century EFL literacy, Fossum (2013) stated that low literacy levels had become an increasing problem as only one-third of students in the US schools are reading proficiently at each grade level. That is why the researcher applied a balanced literacy program that comprised of reading, phonemic awareness, phonics, literacy strategies, vocabulary, comprehension, literature, content-area study, oral language, writing, and spelling, in addition to integrating digital literacy into students' curriculum because it would give them "the ability to communicate with an ever-expanding community to discuss issues, gather information, and seek help" (Brown et al., 2005; as cited in Fossum, 2013, p. 14).

Thus, the researcher made a good illustration of his point of view by highlighting the importance of weaving literacy basic components with 21st-century requirements throughout the curriculum because it would help to build students' background knowledge that is essential for developing knowledge-based literacy skills as well as fostering the development of their creativity, collaboration, critical thinking and communication skills that they need to succeed in society (Partnership for 21st Century Skills, 2009).

This case illustrated that 21st-century literacies are way beyond just "capturing skills and mindsets related to the immediate technologies, but are also related to the larger and tacit shifts associated with digital technologies and global networking—shifts in social structures, culture, capital and labor" (Shamburg, 2009, p.8). Therefore, Shamburg (2009) illustrated the most essential key ideas that educators should bear in mind while designing K-12 students' curriculums, as the following:

- **Participation.** In order to shift students' mindsets from being passive consumers into active creators, educators should empower them to identify

appropriate venues for diverse media and content through creating content for real purposes and real audiences.

- **Appropriation.** Students needed to practice the foundation skills of good research papers through synthesizing others' work effectively and ethically.
- **Mediums.** Students needed to know how to identify, choose, innovate, and capitalize on different mediums such as audio, video, text and different technologies like podcasting, online video, blogging.
- **Ethical Behavior.** In this changing world, students should not be blocked out; however, educators must develop techniques to guide them in developing their own ethical compasses and responsible behaviors through identifying ethical boundaries and existing abuses of new media.
- **Personal interests.** Schools needed to combine between their goals and the experiences and goals of the students as well as matching them with skills needed for today's world. That is why raising the ability to identify, hone and connect personal interests to communities and organizations is a path to a fulfilling life. In this respect, Oliveira and Angus (2010; as cited in Para, 2013) asserted that English language classroom demands an extended understanding of literacy which as a result of implementing diverse technology and multimedia has adopted a flexible and changing nature to respond to the new interests and demands that students are expected to face.

Based on the above key ideas, Shamburg (2009) designed a sample of 17 stand-alone units for (K-12) educators using podcasting as a powerful tool for teaching 21st century EFL literacy that would not only develop students' technological skills and engage them to participate actively in their societies but also would connect them to the world around. For this reason, people's increasingly reading and writing abilities in collaborative online social networks outside the school must be conceptualized, practiced, and discussed as part of what makes a student functionally literate in the 21st century (Pytash et al., 2013).

2.1.2 21st Century EFL Literacy Components

21st century EFL literacy is about "reading for learning to understand, interpret, create and communicate knowledge, using written materials associated with varying situations in continuously changing contexts." Consequently, literacy today stresses on improving "curiosity and self-direction, managing non-linear information structures, building one's mental representation and synthesis of information through hypertext on the Internet, dealing with ambiguity, developing an inquiring mindset,

and interpreting and resolving conflicting pieces of information” (Schleicher, 2012, p.34). In this context, a major shift has been made to focus on information literacy, media literacy and multimodality in ELT/ELL.

2.1.2.1 Multimodality and Multimodal Composition

Besides, integrating technology in EFL learning and teaching has played a vital role in bringing out multiplatform books, which integrates digital formats like videos, podcasts, pictures, and music in traditional print texts. These books are meant to help students become active, engaged, and motivated as well as the combination of these digital components fostered students’ comprehension and creativity. Thus, due to the changes in communication modes in recent years, EFL educators should work on developing students’ multimodal communicative competence through focusing on developing students’ abilities in visual literacy when images co-occur with spoken and written modes. In this line of thought, Heberie (2010; as cited in Parra, 2013) defined multimodal communicative competence as “the knowledge and use of language concerning the visual, gestural, audio and spatial dimensions of communication, including computer mediated-communication.”

In this context, preparing EFL students to get familiar with new technological tools and semiotic forms could offer them opportunities to develop both standard language proficiency and 21st-century literacy, as multimodal practices like instant messaging, social networks, and digital storytelling should be used to learn English so that students could not only represent themselves but also communicate in online spaces by mixing text, image, and sound (Black, 2009). Furthermore, the Common Core State Standards have given great emphasis on writing instruction through giving opportunities to write a variety of genres, including digital writing and multimodal composition and by shedding the light on multimodal compositions that incorporate various modes, such as images, videos, music, and sounds to create one coherent text; Paytash, et. al. (2013) stated that the interaction between modes in this type of composition is significant for communication.

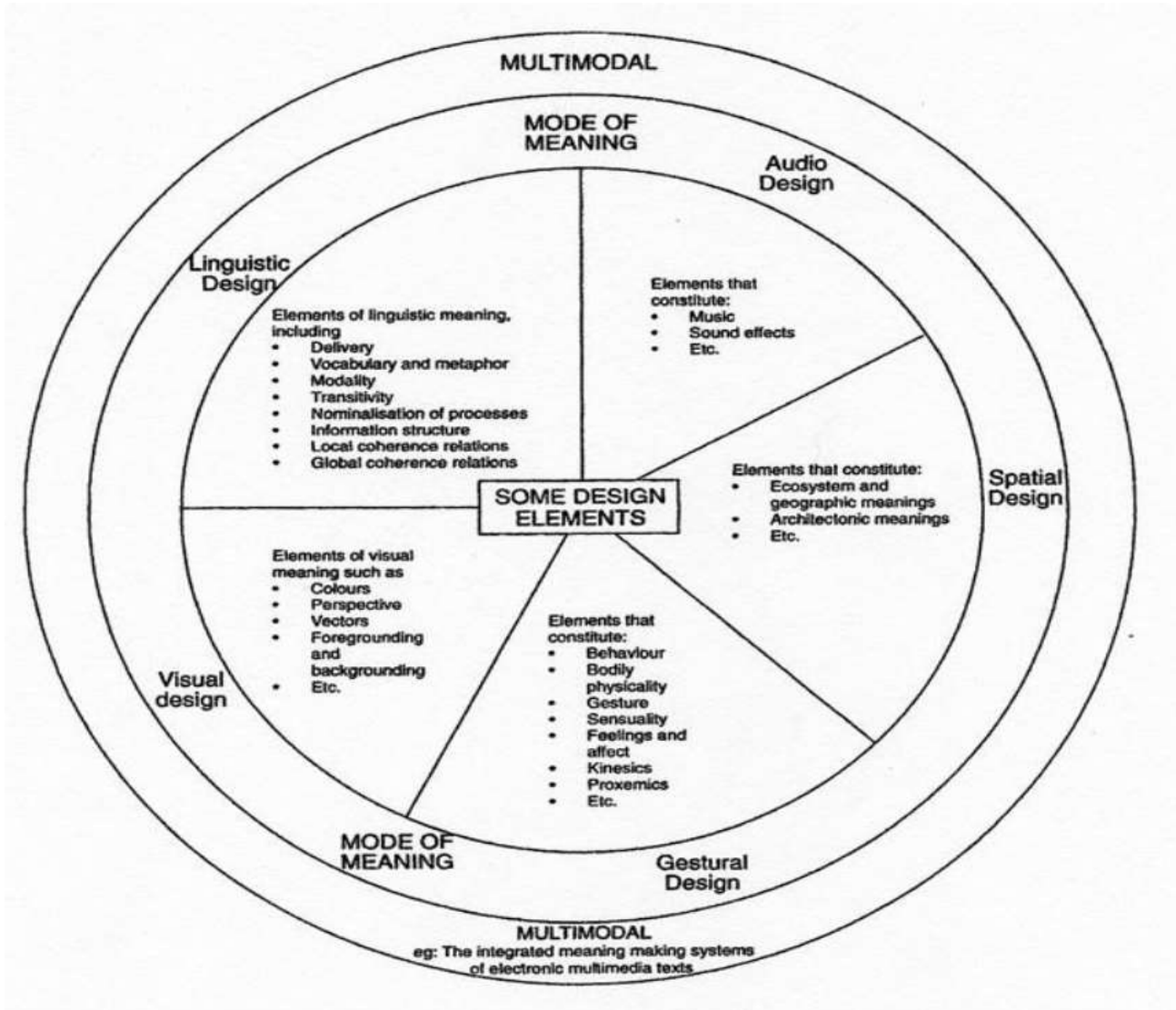
By way of illustration, multimodality does not necessarily include use of technology; however, there are three types of multimodal texts: paper-based, live, and digital. For example, paper-based multimodal texts include picture books, text books, graphic novels, comics, and posters. Live multimodal texts, on the other hand, include combinations of different modes such as gestural, spatial, audio, and oral language that can be conveyed through oral storytelling and/or live performance while digital multimodal texts include film, animation, slide shows, e-posters, digital stories,

podcasts, and web pages that may include hyperlinks to external pronunciation guides or translations.

In general, multimodal texts support EFL students to understand and communicate complex ideas through expressing and developing ideas by learning how different resources can be used to construct meaning regards the nature of the events, the objects and participants involved, and the setting and circumstances in which they occur – who, what, where and when, and to express actions and ideas. Also, they assist students in interacting and relating information while collaborating with others through learning how to build and maintain relationships between viewer, reader, and listener while reading a multimodal text. Students also learn how to express knowledge, skills, feelings, attitudes and opinions, credibility, and power through different modes. Moreover, multimodal texts can support students' text structure and organization through learning how different modes are used to structure a text in a particular way to create cohesive and coherent texts with varying levels of complexity. For example, students learn how the image-maker guides the viewer through the text through the deliberate choices of visual design at the level of the whole text and components within the text. In examining how the image or text is organized, students learn how visual design choices can prioritize some meanings and background others (Painter, Martin, & Unsworth, 2013; as cited in Victoria State Government, 2020).

In support of the points discussed previously, a case study was undertaken by Ganapathy (2016) on 15 students in a private school in Penang, Malaysia, to investigate the effect and students' perspectives of using multimodal approaches in ESL teaching and learning on enhancing meaning-making of 21st-century literacy texts. Consequently, in order to promote students' autonomy in learning, motivate them to learn, and match their various learning styles, a conceptual framework was designed that took into account six major modes to describe and explain patterns of meaning that encompass Linguistic Design, Visual Design, Audio Design, Gestural Design, Spatial Design, and the Multimodal Design.

Figure 1. Multiliteracies Framework (Ganapathy, 2016)



The figure above illustrated that globalization and the rapid development of technology have shed light on means of meaning-making through focusing on integrating various modes into one coherent text as this had a positive impact on students' learning through the use of visual and verbal multimodal learning. In other words, students perform better when learning takes place in accordance with their learning styles and preferences (Jewitt, 2008).

Ganapathy (2016) revealed that applying MMA (Multimodal Approach) in EFL teaching and learning to enhance students' meaning-making abilities with the supplement of ICT as a tool promoted teaching and learning experiences that are multimodal without being restricted to one mode of design. Moreover, the multiple

modes of 21st century multimodal texts fostered students' more profound understanding of the content because it engages them to develop their higher-order thinking skills such as synthesis and analysis during constructing meaning (Sharp, 2016). Thereby, this case study affirmed that students' perception of MMA lessons in an EFL classroom was described as highly engaging, self-directed, and learner-centered and promoted meaning-making with minimal guidance from the teachers.

As explained earlier, Coiro (2011) supported the use of multimodal texts online to reinforce students' deep understanding of online reading comprehension texts as information on the Internet presented via more than one element such as hyperlinks, images, animation, audio, and video. In this context, a study was conducted on (N= 109) 7th-grade students to investigate the extent to which online reading comprehension could enhance their reading proficiency versus offline reading comprehension, and it had shown the following findings:

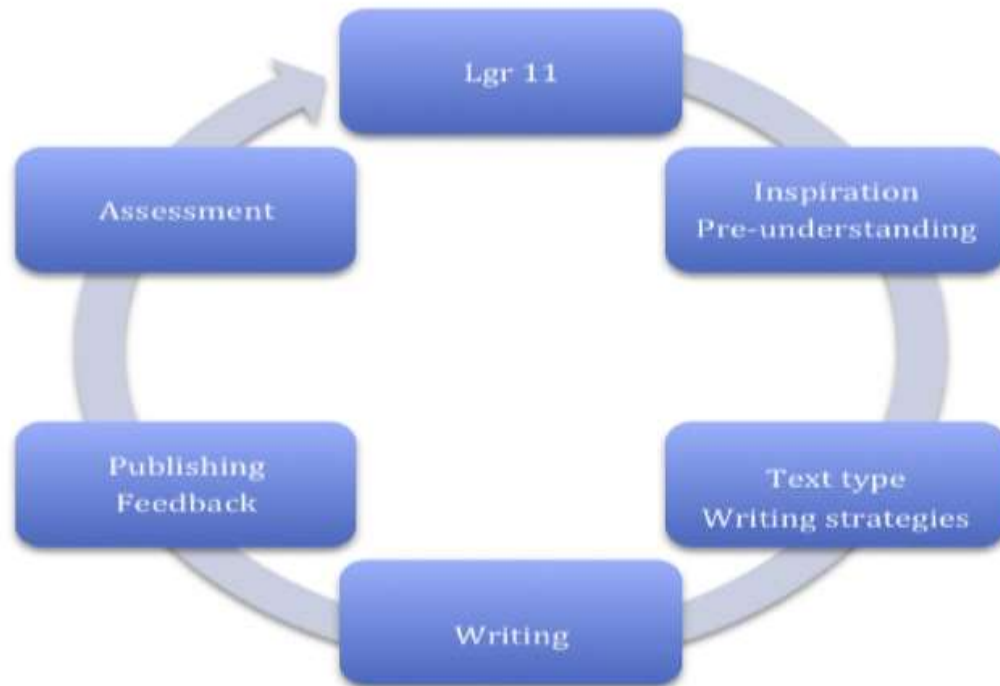
- First, the implementation of new technologies challenged students' abilities to comprehend informational texts online as illustrated by the RAND Reading Study Group (RRSG, 2002) that "electronic texts that incorporate hyperlinks and hypermedia . . . require skills and abilities beyond those required for the comprehension of conventional, linear print" (p. 14).
- Furthermore, online texts often contain hidden social, economic, and political agendas that require higher degrees of critical evaluation skills than typically found in offline text comprehension, such as accessing search engines, generating reasonable search terms, understanding website addresses, navigating multilevel websites, and using new information and communication tools (Coiro, 2011). For instance, online informational texts introduce infinite numbers of intertextual connections and intercultural negotiations that prompt new complexities for readers trying to synthesize and communicate information. Thus, emerging concepts like information literacy, digital literacy, and Internet inquiry have framed online reading comprehension as a "web-based inquiry process involving skills and strategies for locating, evaluating, synthesizing, and communicating information with the Internet. Accordingly, many dimensions of online reading may require new comprehension skills and strategies over and above those required when reading printed books" (Coiro & Dobler, 2007).
- Second, there was an interaction between prior knowledge and online reading comprehension as it had been noticed that students with higher levels of online reading comprehension skills were able to compensate for lower levels of topic-

specific prior knowledge when they were asked to locate, critically evaluate, synthesize, and communicate information using the Internet. On the other hand, reading offline texts required higher levels of prior knowledge to facilitate comprehension. In this case, Coiro (2011) confirmed that “the Internet might introduce new possibilities for low-knowledge readers to quickly locate information to which they might not otherwise have access”.

- Third, findings from this study suggested that offline reading comprehension can inform, but not complete, our understanding of online reading comprehension. In essence, these findings may serve to cautiously validate the notion that reading skills and strategies beyond those measured by traditional reading are required to read proficiently on the Internet. Therefore, Moje (2009) recommended giving attention to new literacies, but in ways that “resist the dichotomy of old and new and instead situate literate practices on more of a continuum” (p. 359). Consequently, as educators seek to define the new literacies of online reading comprehension, they might give attention to scaffolding and expanding traditional conceptions of offline reading comprehension in ways that assist in genuine appreciation of the complexities of those aspects of Internet reading.

Similarly, another study conducted by Genlott & Gronlund (2013) on (n=87) 1st-grade students in Sweden highlighted the impact of “information society” as it implies “a huge rise in informational activities due to the internet and other ICT related activities. Thus, more people in the world need enhanced literacy skills to be able to find, select, interpret, analyze, and produce information” (p.98). Therefore, in this study, the ICT-supported iWTR (Integrating Writing to Learn) method enhances students’ ESL literacy by letting children use computers and other ICT tools to write texts and subsequently discuss and refine them together with other children and teachers. Moreover, postponing practicing motor skills like handwriting to 2nd grade make students focus on one main process at a time. Additionally, applying iWTR method in ESL instruction enable students to improve their reading proficiency considerably and writing fluency as they can write longer texts with better structure, clearer content, and a more elaborate language.

Figure 2. The iWTR method. Lgr 11 is the Swedish National curriculum (Genlott & Gronlund, 2013).



As shown in the figure above, lessons are carried out through six steps: First, teachers align chosen content and skills with the Swedish National curriculum (Lgr 11). Second, they provide examples of different writing genres in order to create a preunderstanding among the students. Third, before writing, teachers give students the required knowledge concerning how that particular text genre is written. For example, what kind of words are suitable to use, who is the receiver of the text, etc. Fourth, students start writing while getting linguistic support from their teachers and feedback from their peers and teachers. Fifth, students' written texts are either written and published directly on the class website or written in a document shared with teachers and peers because it is to make sure the students know that they are writing for real receivers and that they will get written feedback directly after publishing their texts. Sixth, formative assessments are conducted by teachers to test the effectiveness of this technique. In this respect, it is not essential while teaching children to write to insist on spelling every word correctly and composing perfect paragraphs as this can be done quickly with the help of different ICT tools; however, teachers should work on letting them produce complex ideas and use their higher-order thinking skills.

In this context, NCTE (2009) suggested two main challenges that curriculum designers and educators should take into consideration while teaching and learning EFL/ESL literacy in the 21st century:

- **Developing new models of composing.** Educators should not neglect the role of writing for the public because “the public is perhaps the most important audience today, and it is an audience that people have written for throughout history. If this is so, we need to find a place for it both in our models of writing and in our teaching of writing” (p.7).
- **Creating new models of teaching.** Because of the implementation of technology into students’ lives, they are exposed to a wide range of information and various resources. That is why in the 21st-century world, students need to learn how to “distinguish between rich resources and the online collection of surface facts, misinformation, and inexcusable lies that masquerade as the truth. It will be hard for our students to be thoughtful citizens without this ability to discern the useful from the irrelevant” (p.8).

2.1.2.2 Information Literacy

As indicated previously, Coffman (2017) expounded on the crucial need to implement information literacy into students’ curriculum as it is a problem-solving approach that involves thinking skills derived from the traditional literacies of reading, research, and writing. It also encompasses inquiry through asking questions, seeking answers, finding relevant and appropriate information, forming opinions, and evaluating a variety of resources to ensure that informed decisions are made. Thus, being information literate requires students to develop essential skills to pool knowledge in order to solve complex challenges, negotiate between diverse communities and follow threads of information and material that may include various digital modes like videos, images, written work, and online resources. In other words, Gorman (2003; Campbell, 2004) confirms in his work on sustainable development and information literacy, “it is better to focus on teaching people how to utilize the information they can readily and regularly access, whether it is in a printed pamphlet from a government department, a radio programme, a newspaper – whatever is locally available” (p.4).

Therefore, Nolan (2012) asserted that digital and information literate global learners in the 21st century should be able to:

- Identify the need to locate information to solve problems and produce ideas;
- Formulate higher order questions;

- Synthesize prior knowledge with new information;
- Locate various information that includes varying views and reference sources;
- Develop strategies to identify practical and applicable search terms to narrow search results for better accuracy of information received;
- Critically use new information to solve complex problems that may or may not have clearly defined solutions.

Based on the requirements listed above, Ameli and Ahoeei (2018) illustrated the Internet information literacy abilities needed in the 21st century, such as the ability to access, ability to assess, ability to investigate, ability to create, ability to understand, and ability to produce. Additionally, a list of abilities like critical and creative abilities, including the ability to read critically, creative production, and critical perception, are highly required in the current era as well. In this respect, researchers emphasized that basic Internet skills on their own would not be beneficial enough to prepare a digitally literate student who is aware of using technology in an efficient and integrated way. That is why Internet information literacy works on raising students' awareness of what they read and helps them to question the content and be productive, not only passive receivers of others' opinions.

Due to the complex nature of 21st century EFL literacy components, the researchers assured that they could not attain information literacy skills in isolation; however, fundamentals of generic skills, like problem solving, teamwork and collaboration, communication, and critical thinking, especially in achieving higher-order literacy standards should be included. Therefore, three research methods are used, including students' speech outlines as they work as an organizing guideline for students' thoughts and elaborate their understandings of the topic they are going to present. Also, in order to accomplish these outlines, they should do lots of reading and research. Thus, speech outlines are considered to be the essential tool to investigate students' information literacy abilities. Moreover, Open-ended questionnaires are used, including three categories: the students' background information, their views on English language learning, and their practices in completing the speech outline for Public Speaking. At last, teachers' feedback on the students' progress in writing speech outlines provides more authentic evidence of their information literacy and language proficiency.

Similarly, Syaifullah et al. (2018) reported that students at schools in Indonesia were not able to develop their own information literacy by themselves when they depended mainly on textbooks and their teachers as sources of information. On the

other hand, in the age of information, explicit teaching is needed as “one of the attempts to construct literate students and environment and support life-long learning. Across countries, the development of information literacy is considered important for students since they need it for their life at school, from primary to tertiary level of education, for their private and working lives” (p.95). For this reason, a scientific approach in teaching and learning information literacy in EFL classrooms is adopted, comprising five basic steps: observing, questioning, experimenting (collecting information), associating (reasoning), and communicating.

Following the scientific approach in teaching information, literacy requires EFL teachers to apply the constructivist learning models such as Inquiry-based Learning, Discovery Learning, Project-based Learning, and Problem-based Learning in order to help their students be information literate. It is also important to implement different approaches and models to design and provide more practical information literacy education and encourage students to improve their learning outcomes. Thus, constructivist approaches such as Inquiry learning and Problem-based learning enhance students' ability to use the information and actively collaborate with others to gather and use information to inform complex problems. Also, inquiry-based learning provides an excellent context to develop students' information literacy knowledge and skills.

In conclusion, in the 21st-century, information literacy and technology are integrated into students' curriculums to function comfortably in their academic lives and everyday tasks; information literacy grants many advantages to an individual and the community in general. Additionally, an information-literate person can use information literacy to become knowledgeable and informed. Information literacy abilities allow students to think critically when dealing with information from a variety of texts and sources. Correspondingly, students will be able to extend their abilities and knowledge beyond the text and construct new knowledge. Through this practice, students will become more self-directed and take better control over their education (Nizam, Musa, & Wahi, 2010).

Therefore, Buckingham and Litzler (2019) spotlighted enhancing students' curriculums to prepare them to live in the 21st century successfully. That is why the researchers investigated four EFL random textbooks used in the fourth grade of the primary level of education used in Madrid to examine if they took the more traditional approach to literacy or a broader one that involved the consideration of genre characteristics and work at the next level. Moreover, they referred to countries like Australia and Canada and how they used a text-based focus for language education to allow students to analyze and reconstruct texts from integrating different disciplines

and work with other techniques. The idea is moving from learning to read toward reading to learn. In this context, the researchers illustrated the difference between literacy features in both the narrow and broad sense.

Table1. Comparison of literacy features. (Adapted from Fernández & Halbach, 2009; Buckingham & Litzler, 2019)

	Literacy in a narrow sense	Literacy in a broad sense
Preliminary aspects	Work focuses on letters The mechanical part is important - neat handwriting	Work focuses on sounds The mechanical phase is just a "preliminary"
Reading	Work is on pedagogical texts	Pedagogical texts are complemented with text from various genres: poetry, tales, etc.
	Work on the text is aimed at extracting information, normally through closed questions	The text is worked on in relation with the topic of the unit; it is used as a starting point for other activities (e.g. writing a poem)
	The text is not worked on at the level of textual comprehension, solely on language issues	An efferent and aesthetic response is looked for
Writing	Focus is on the text	Focus is on the student / reader
	Accuracy is valued	The content of the writing is valued
	Students write to answer questions	Students write to communicate
	Focus is on vocabulary (at the word level)	The text is related to students' own experience
	Focus is on the product	Focus is on the process
Beyond reading and writing	Correct models are imitated	Creativity is fostered
	Closely linked to "language"	Interdisciplinary character: developed through other subjects too
	Literacy is worked on in the first years of schooling	Literacy is a skill developed throughout life
	Concept of "multiliteracies" is not generally known	Concept of "multiliteracies" is known and practiced

As clarified in the table above, adopting the constructivist approach in students' literacy curriculums with their broad sense will enable them to construct meaning and build their life-long learning habits. Also, focusing on writing as a process, making language practice relevant to students, and fostering students' prior knowledge will make learning more meaningful and authentic in order to arm them with the tools to produce coherent texts while performing communicative tasks (Gilmore 2015; Meyer et al., 2015; Mickan, 2017; Buckingham & Litzler, 2019).

In this context, Tran & Aytac (2019) gave prominence to varied teaching scaffolding strategies that could be used to improve English language students' information literacy through making use of their background knowledge such as KWL charts, visual aids, realia, cooperative learning, word wall, story reenactment, and flipped classrooms. Besides the use of the above-mentioned teaching strategies, librarians could guide students through each step of the process with the model of the finished product in hand. This could be a great use of the above-mentioned scaffolding strategies.

In support of the idea above, librarians should collaborate with the EFL teacher or the classroom teacher. This should include planning and sharing strategies about information literacy instruction and more specific tactics. Therefore, any chance to give English language students exposure to the curriculum beforehand will increase their ability to understand the content they are supposed to study. This would enhance the effectiveness of face-to-face time by exposing students to the resources for an extended period of time.

Furthermore, Maybee and Flierl (2016) illuminated that informed learning, an approach to information literacy, could enhance pre-university students’ motivation to learn and make them more autonomous. To clarify, informed learning “suggests that using the information in the context of learning in the classroom is more likely to prepare students to successfully engage with information in other learning contexts, such as their future work, personal, and civic lives” (p. 699). That is why in order to enhance students’ motivation using informed learning, three basic principles should be taken into consideration: (1) teachers should start learning from students’ prior knowledge, (2) students must be equipped with the essential ICT skills needed to access information related to subject content, (3) and they should be able to deal with the information used efficiently and went beyond what they already know as well.

Therefore, to internalize students’ motivation and allow them to have ownership of their own learning, teachers should give great attention to build students’ activities to satisfy the following psychological needs: autonomy, competence and relatedness, as shown in the table below.

Table 2. Relating self-determination theory to informed learning
(Maybee and Flierl, 2016)

Informed learning	Self-determination theory		
	Autonomy	Relatedness	Competency
Subject content learning	Student perceives choices in what they learn	Student feels connected to the subject content and/or peers/instructor	Student feels capable of learning subject content
Engagement with information, e.g., academic, disciplinary, or professional information practices	Student perceives options in how they use information to learn	Student feels connected to students, instructor, and/or subject material through intentional engagement with information	Student feels capable of using information in the way needed to learn

Thus, relating self-determination theory to an informed learning approach will not only help students to be encouraged to collaborate and share their thoughts but also will enable them to feel volitional about how and what they learn.

2.1.2.3 Media Literacy

There is a dramatic increase in accessing information at a rate of 30% every year, and based on recent studies done in the US on media use at work, it has been found that 39% of the work time is spent on media. Moreover, a study carried on Taiwanese university students illustrates that most of them spent over two hours a day using various types of media to gain information, suggesting that using the media has become an everyday experience for Taiwanese students. That is why media literacy becomes a crucial educational asset in the 21st century. (Potter, 2008, Yang & Chen, 2009; as cited in Yeh, 2010).

Media literacy, according to Potter (2008; Yeh, 2010), is “a set of perspectives that we actively use to expose ourselves to the media to interpret the meaning of the messages we encounter” (p. 2). Additionally, Potter explained various stages that people go through from childhood to adulthood to be fully media literate: Acquiring Fundamentals, Language Acquisition, Narrative Acquisition, Developing Skepticism, Intensive Development, Experiential Exploring, Critical Appreciation, and Social Responsibility, as shown in the table below.

Table 3. Stages & Characteristics of Media Literacy (Adapted from Potter 2008; Yeh, 2010)

Stage	Characteristics
Acquiring Fundamentals	● Learning that there are human beings
Language Acquisition	● Recognize shapes, form, size, color, and movement
Narrative Acquisition	● Recognize speech sounds and attach meaning to them
	● Recognize certain characters in visual media and follow their movement
	● Develop understanding of differences between fiction and nonfiction, between ads and entertainment, between real and make-believe
	● Understand how to connect plot elements

Developing	●	Discount claims made in ads
Skepticism	●	Sharpen differences between likes and dislikes for shows and characters
Intensive	●	Strong motivation to seek out information on certain topics
Development	●	Developing a detailed set of information on particular topics (sports, politics, etc.)
	●	High awareness of utility of information and quick facility in processing information judged to be useful
Experiential	●	Seeking out different forms of content and narrative
Exploring	●	Focus on searching for surprises and new emotional, moral, and aesthetic reactions
Critical	●	Accepting messages on their own terms then evaluating them within that sphere
Appreciation	●	Developing broad and detailed understanding of the historical, economic, political, and artistic contexts of message systems
	●	Ability to make subtle comparisons and contrasts among different message elements
	●	Ability to construct a summary judgment about the overall strengths and weaknesses of a message
Social	●	Taking a moral stand that certain messages are more constructive for society than others
Responsibility	●	Recognizing that one's own individual decisions affect society
	●	Recognizing that there are some actions an individual can take to make a constructive impact on society

Yeh (2010) pointed out that when people got exposure to various messages on different kinds of media and got the meaning out of those messages did not mean that they became fully media literate. However, above this stage, there are other stages that require higher-level skills. For instance, in the Experiential Exploring stage, people begin to seek out different types of messages on a wide range of topics. In the Critical Appreciation stage, they look for cognitive, emotional, and moral messages and evaluate and judge specific messages mentioning their points of strength and weakness. Finally, in the Social Responsibility stage, people develop an awareness of how their actions and decisions may have an impact on society.

As students of all ages typically have intense exposure to numerous media messages, it appears excusable that educators reply to this growing development and facilitate students using media messages for their own advantage. Nevertheless, review of literature indicated three views of using media in the classroom: teaching

through media, with media, and about media. At first, teaching through media, as clarified by Hobbs (2005, p.865), is “the use of TV or film as a teaching tool” and other forms like PowerPoint, Internet, newspapers, and books while teaching with media includes the skills and knowledge required to use and interpret media. This view stressed the importance of integrating media literacy into the school curriculum and treating media texts as a valuable teaching resource. In other words, media literacy should be used to support traditional literacy, math education, science education, and social studies curricula. This will enable teachers to create an authentic learning environment and provide meaningful and relevant tasks for students.

In this context, media literacy should involve not only teaching through and with media but also teaching about media. In this view, media literacy focused more on reflection, analysis, and evaluation, not only of the specific media texts but also of “the social, economic, political, and historical contexts in which messages are created, disseminated, and used by audiences” (Hobbs, 2005, p. 866). The main goal of media literacy education, in this respect, is to strengthen students’ critical thinking skills and to equip them with proper tools to understand, analyze, and evaluate messages within the media so they will build sensible selections in today’s message-saturated world. Applying this strategy to teaching media literacy in the EFL classroom enable students to construct meaning instead of receiving information passively, to synthesize novel ideas with their prior knowledge into an organized and coherent whole, and to understand the targeted issues more thoroughly so that they can participate actively and share knowledge while working collaboratively in groups.

In support of the previous claims, Wade (2014) highlighted some basic principles that should be taken into consideration while integrating media literacy into students’ EFL curriculum, like the following:

- Materials presented ought to reflect debatable, various, trendy and crucial ideas and problems in society that are engaging to students’ desires and interests;
- They ought to be focused on language areas as well as media literacy skills;
- The linguistic items (particular grammar structures, language functions, or informal expressions), speech delivery (speech rate, clarity of speech, and accent), and density of language (the quantity of language spoken throughout a specific sequence) ought to be a vital issue to consider while choosing mass media materials for classroom viewing and interpretation;
- The study materials should be versatile, informative, and inspiring to students to ensure more significant engagement.

Despite the essential need for media literacy in our modern life and the necessity of integrating it into education, the Egyptian education system does not pay sufficient attention to this issue. That is why El-Seidy (2005; as cited in El-Henawy, 2019) investigated the effect of implementing a unit focusing on media influence on developing media awareness of 35 pupils in a preparatory stage in El-Menofia. Results showed a tremendous increase in students' knowledge and skills of comprehending and analyzing media. It was recommended that media education should be implemented into the Egyptian education system as an optional course in the primary and preparatory stages.

In this context, Shangerffam and Mamipour (2011) highlighted the importance of integrating media literacy into language education because media literacy stimulated individuals' cognitive and critical thinking skills. Since "cognition and language development are closely related" (p.119), this, in return, would work on providing students with extra language input that would strengthen their comprehension. Moreover, Buckingham (2003) illustrated that when students were asked to reflect on their media experiences in educational settings, they seemed to be more motivated to master linguistic knowledge. Thus, he referred to it as "a process whereby students out-of-school cultures are gradually recognized as valid and worthy of consideration in the school curriculum" (p. 9). Furthermore, the implementation of media literacy in the English language classroom allowed educators to evaluate better their learners' skills such as comprehension, vocabulary building, and speaking. Therefore, adopting media literacy in the English language curriculum fostered students' "participation and engagement as it allows them to use their familiar media contents in order to express themselves as active, autonomous and responsible agents" (Hattani, 2016, p.109).

In a similar vein, EFL teachers pointed up that focusing on teaching explicitly about media advantages and disadvantages was not leading to promote students' critical thinking abilities; however, Xu (2016) recommended that media literacy education curriculum should be developed to match students' interests and experiences beyond the textbook. Students needed to recognize the significance of the media messages and critically explore the implicit aspects before the explicit ones. On the other hand, teachers spotlighted that lack of media resources and technological requirements, including computers, data projectors, TV monitors, among other devices, stand as obstacles to implement media literacy in students' EFL curriculum successfully. Thus, educators stressed on building a strong bond between home and school in order to give birth to media literate students. This clarified that "students' media access usually

starts at home; therefore, media literacy should be based on critically addressing their learners' out-of-school media experiences" (Hattani, 2016, p.113).

2.1.2.4 21st Century EFL Literacy Assessment

Since the requirements of EFL literacy teaching and learning in the 21st century have changed dramatically, assessment strategies should be enhanced to meet these changes as well. That is why "What is learned, and how it is taught and assessed must be transformed to respond to the social and economic needs of students and society as we face the challenges of the 21st century" (OECD, 2010). Thus, Arsi (2019) illustrated that exams in the 21st century should respond to the demands of the information and innovation age and make use of technology to allow students to be literate in new media and harness their power.

In this respect, Pellegrino et al. (2001; cited in Pellegrino & Hilton, 2012) listed three pillars that assessment in the 21st century rests on: how students represent their knowledge and develop their competencies of a subject domain; authentic situations and tasks in which students' performance is observed; and reflective methods and strategies adopted to help students draw inferences on their obtained knowledge. To be more specific, Binkley et al. (2010: 6-7) recommended that the 21st century standards and assessments should:

- Fully specify the 21st knowledge and skills students are expected to obtain and apply.
- Be largely performance-based by asking students to apply content knowledge through criticizing, solving problems, and analyzing tasks in novel situations.
- Add value for teaching and learning by enhancing students' learning through designing assessment tasks that can enable students to organize and deepen their understanding through explanation and the use of multiple representations.
- Make students' thinking visible by providing a window into students' understandings and conceptual strategies.
- Be fair by enabling all students to show what they know and provide accommodations for students who otherwise would have difficulty accessing and responding to test items.
- Provide productive and usable feedback for all students.

The National Research Council (US) Board on Science Education (2010; as cited in Arsi, 2019) suggested strategies of assessment that could be used to enhance 21st-century learning; namely structured interviews, situational judgment tests, role plays,

group exercises, in-basket exercises, work samples, and performance standards/appraisal.

- **Structured interviews.** A set of questions used to assess students' interpersonal and communication skills.
- **Situational judgment tests.** Students are asked to choose the best response for that scenario or to rank the responses in order of most appropriate to least appropriate.
- **Role plays.** Students are provided with written information about a realistic situation. After a period of time to prepare for the role play, they present their responses to the situation.
- **Group exercises.** Students work in groups to address a problem or respond to a situation, making it possible to assess their communication and interpersonal skills, such as negotiation, persuasion, and teamwork.
- **In-basket exercises.** An activity that can assess how well students perform job related tasks within a certain period of time.
- **Work samples.** Students perform tasks or work activities that mirror the tasks teachers perform as a sample for students to follow.
- **Performance standards/appraisal.** A performance-based assessment is a summative strategy to assess students' knowledge as well as their ability to apply knowledge in a "real-world" situation.

Moreover, due to the dramatic progress in the technological field and the integration of technology in EFL learning and teaching, Gibson and Webb (2013) confirmed that applying new technologies can facilitate both formative and summative assessment. Nowadays, students can be assessed through simulations, e-portfolios, or interactive games. Formative assessment can be conducted by online peer assessment, feedback, self-assessment, and "semi-automatic systems". That is why contemporary curriculum design includes multiple characteristics such as implementing 21st Century skills, using digital tools, collaborating with others overseas, performance tasks, etc.

In this context, Mitra (2020) suggested that examination of its traditional concept would not work in the 21st century because it was not authentic and did not reflect students' nature in age of information and the Internet. In fact, students should solve their exams the same way they solve their real-life problems. For example, he assured that students could solve any standardized test even if it assessed them about content, they had not heard about it before. In this point, he clarified that if teachers gave

students time to collaborate, share ideas and look for answers, they would be able to answer it on their own.

Additionally, Ouboumerrad (2016) revealed that assessing 21st century components implemented in EFL curriculums might not be more difficult than expected because measuring collaboration, teamwork, or critical thinking need updated tests to assess them. That is why performance assessments can always be an alternative to standardized tests as it is considered a subjective and time-consuming option. Therefore, there are other alternative types of assessments, such as journal, e-portfolio, projects, self-assessment, and peer-assessment that teachers can make use of to get more information about students' abilities to apply the knowledge they have learned into other contexts using various digital tools.

In a similar vein, Reynolds, Tavares and Notari (2017) presented varied assessment tools gathered from different case studies to assess EFL literacy in the 21st century in the primary stage through reflecting the learning outcomes of the following five key components: reading literacy, information literacy, media literacy, collaboration and information technology literacy, as illustrated below:

- **Reading literacy.** The development of students' reading literacy is always connected to the improvement of their information literacy as well. That is why any improvement of students' comprehension levels through reading results in a great shift regards their abilities to reflect, analyze and evaluate the information they read. In this context, traditional reading assessments that include short responses, open-ended comprehension questions and/or book reports will not be suitable in the 21st century. Therefore, Wu et al. (2014; as cited in Reynolds, Tavares and Notari, 2017) used motivate-scaffold-monitor framework to assess grade three students' reading literacy in a primary school in Hong Kong and this was done through asking students through a game called "Reading Battle" to answer questions require information retrieval, making inferences, interpretation and synthesizing ideas, and evaluation. This online gamification system sped up teachers' abilities to provide immediate feedback as well as motivating students through the use of e-badges to participate actively and challenge themselves. Moreover, interviews with parents revealed that after reading books of varied difficulty levels, students could write compositions with better organization and had since then performed better in the school's writing assessments.

- **Collaboration.** Notari and Baumgartner (2010; Reynolds, Tavares and Notari, 2017) conducted self- assessment questionnaires on Swiss university students to assess the degree of their collaboration both at the beginning and end of the project. The prequestionnaire consisted of 16 sentences that assess each student social skills including information exchange, empathy, initiative, leadership and assertiveness while in the post-questionnaire, students evaluated their own level of satisfaction and quality of cooperation as in the pre-questionnaire using the same scale (1-4). Teachers highlighted that using questionnaire to assess students' collaboration strengthened their abilities to cooperate, foster prosocial behaviors and boost their leadership skills. Consequently, Fullan (2013) stressed on integrating learning activities with technology in the 21st century by giving sufficient attention to communication and collaboration in language learning which highlight the demanding requirements not to be able to communicate effectively either orally or in writing while working in teams but also through using a variety of digital tools.
- **Information literacy and Information Technology Literacy.** A study was done to assess the effect of combining collaborative teaching and inquiry-based learning on the development of information literacy and information technology literacy of primary four students at a school in Hong Kong over a six-month period. After this period, students and parents were interviewed to articulate the difficulties they encountered and the students' enhancement in their information literacy and information technology skills. In this interview, parents were asked about their children's improvement regards their abilities to locate information, and competency in computer-related skills like the use of PowerPoint and Chinese word processing. Moreover, students were asked the same questions in a questionnaire conducted in class by their teachers. After the project, students considered themselves more familiar with all the aspects of information literacy and information technology skills in focus. It was also noticed that as the accessibility of searching tools and computer software increased, greater improvement was realized in students' familiarity with the use of the digital tools (Chu et al., 2008; Chu, 2009; Reynolds, Tavares and Notari, 2017).
- **Media Literacy.** A project was conducted by Chu, Lau, Chu, Lee, & Chan (2014; Reynolds, Tavares and Notari, 2017) on primary four students to investigate their media use and media awareness at four schools in Hong. In this project, teachers and students were given questionnaires on media

awareness and media use patterns to be completed, as shown in the figure below.

Figure 3. Questionnaire on media awareness and media use patterns (Chu et al., 2010).

Questionnaire on media awareness and media use patterns

1. Please list three Chinese newspapers from Hong Kong:
 - i. _____
 - ii. _____
 - iii. _____
2. Which of the above newspapers do you read most often? _____
Why? _____
3. Please list two free TV stations in Hong Kong:
 - i. _____
 - ii. _____
4. Which of the above TV stations do you watch more often? _____
Why? _____
5. Please list one paid TV service: _____
6. Does your family have a subscription to paid TV service at home? Yes/No
If yes, which one?
7. Please list two radio stations:

8. Which radio channel from the above radio stations do you listen to more often?
Why? _____
9. Do you surf the Internet? Yes/No
If yes, how many hours do you spend online every day? _____
10. When you get connected to the Internet, which website will you first visit?

11. Do you agree with the following statements? (1 for strongly disagree, 5 for strongly agree)
 - i. Generally speaking, news in the newspapers is reliable.
 - ii. Generally speaking, news on TV is reliable.
 - iii. Generally speaking, news from the radio is reliable.
 - iv. Generally speaking, information on the Internet is reliable.
 - v. I think it is important to read about the news every day.
 - vi. I like knowing about the latest news.
 - vii. I know how to distinguish true from unreliable news.

Results showed that students selected which newspaper to read based on its content. However, a lot of students provided no answer to the question asking for their choice of radio channel because the popularity of the Internet may account for students' lack of familiarity with radio channels since the Internet offers an alternative to radio programs (e.g., podcasts), and also substitutes radio channels to a certain extent. Moreover, when students were asked to comment on the reliability of the media, they considered the television to be the most reliable form of media, followed by the radio, newspapers and the Internet. This suggested that traditional media is still considered as important sources of information. The study concluded that the students were autonomous in deciding on their choice of media, and did not rely merely on the new media, thereby demonstrating a considerable level of media literacy. Results of the study also illustrated that teachers did not seem to fully understand their students' perspectives towards media use. Thus, findings pointed the need for teachers to

deepen their own understanding of students' media consumption habits in order to create an effective, tailored media education curriculum for their students.

2.1.2.5 The Common Core State Standards in the 21st century and P21 Framework

The Common Core Standards (CCSS) tended to give students opportunities to get exposed to knowledge and skills required for students to be “college and career ready” by the end of K-12 education; however, they fail to support the new literacy demands in the 21st century. Moreover, most of the reading texts students are exposed to are online; therefore, in order to guarantee students' success in the age of digital information and communication, they must be equipped with the skills and strategies needed.

In support of the above claim, Drew (2013) clarified that the CCSS “acknowledges the changing nature of literacy to include nonprint texts in new media forms. However, the standards themselves do not adequately address the changing nature of literacy and the Internet as a central text” (p.323). That is why there is no mention of online reading at all in all CCSS standards, and this provides evidence of why CCSS do not in particular mention skills like gathering, comprehending, evaluating, synthesizing, and reporting on information and ideas online and offline. Thus, students' in-school literacy learning experiences will not reflect what is supposed to be required from them to participate actively in the global society outside school.

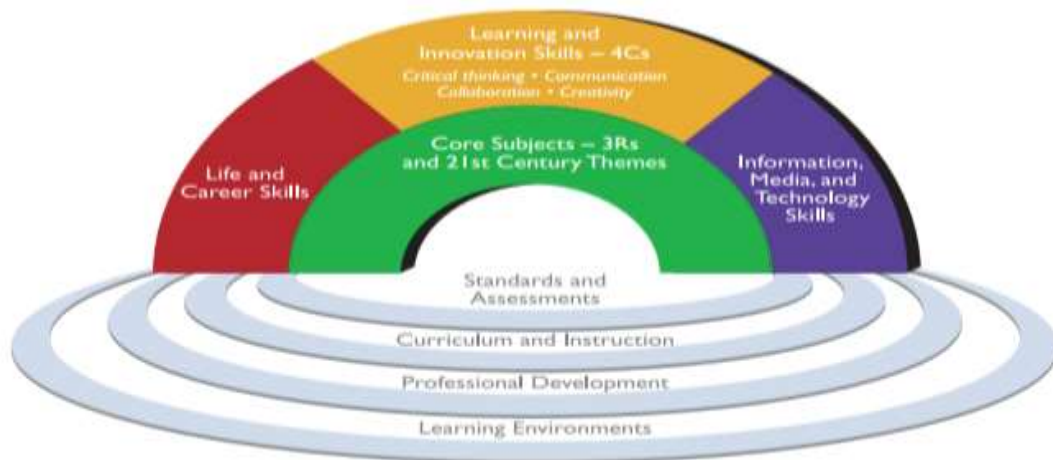
CCSS authors supported their point of view by highlighting the importance of engaging students in “close reading” experiences with appropriately complex texts. However, “close reading” does not take into consideration the discursive, nonlinear, interactive, and multimodal elements of the online text as it focuses on the meaning of the individual words, the order in which sentences unfold, and the understanding of the whole text. On the flip side, these goals do not fit online reading as students are required to make connections among hyperlinked content and reflect on the reliability of sources through constructing their unique understanding of the diverse texts encountered (Roe, 2015).

In this context, implementing 21st-century literacy demands will let students be prepared for college and the global market. Additionally, the new literacies of online reading and communication offer innovative ideas to engage and support low achievers academically as well as narrowing the achievement gap between proficient readers and struggling ones. Furthermore, assessments turn to be computer-based as educators need to consider preparing students to interact actively in a digital

environment. Thus, the CCSS authors state, “the standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers..., positioned to compete successfully in the global economy” (NGA Center & CCSSO, 2010; Drew, 2013) and in order to do so, educators need to open up the ceiling by expanding literacy experiences to include online literacy to match the type of reading in which students exposed to outside school and to fulfill the expectations of being literate in today’s world.

Therefore, educators attempted to align CCSS with the standards of the Partnership for 21st Century Skills Framework to address both the core academic knowledge and the complex thinking skills required for success in college, life, and career in the 21st century, as shown below.

Figure 4. 21st Century Student Outcomes and Support Systems (P21 Framework, 2011).



This figure reflects that the P21 Framework does not focus only on one core subject but also promotes understanding of academic content at much higher levels by implementing 21st-century interdisciplinary themes such as global awareness, health literacy, civic literacy, environmental literacy, and financial, economic, business and entrepreneurial literacy into core subjects, through integrating skills like critical thinking, problem-solving, and communication into the teaching of core academic subjects such as language arts, mathematics, economics, science, geography, and history.

2.2 Inquiry-Based Learning

Generally, inquiry-based learning refers to situations where teaching method that places students' questions, ideas, and observations at the center of the learning experience. Therefore, rather than being 'instructed to,' students are empowered to explore subjects by asking questions and finding or creating solutions. In this context, educators play a vital role throughout the learning process by establishing a culture where ideas are respectfully challenged, tested, redefined, and viewed, moving children from a position of wondering to enacting understanding and further questioning (Scardamalia, 2002).

2.2.1 Inquiry-based learning and EFL learners in the 21st century

Inquiry allows learners to understand the content or concepts through observation, questioning, exploration, and experimentation. Thus, inquiry-based learning in the 21st century offers much more than content development. It actually creates "opportunities for building skills that are critical to thrive in this fast-paced, technology-heavy, information-inundated society that we live in" (Segar, 2020). This proves why 21st-century learners nowadays need to learn innovatively as learners now are digital natives born in a technology world and exposed to technology since young, which grants a vast trove of information and access to learning new things virtually.

Consequently, inquiry aims to move learners beyond building knowledge to express, reflect on, and apply their knowledge creatively. This provides opportunities for learners to develop self-regulatory skills needed for academic and life success. That is why early engagement in the inquiry process enables children to set goals and plan strategically. Thus, during inquiry, children focus their attention and monitor their use of effective meaning-making strategies; after inquiry, they reflect on their abilities and progress in accomplishing their goals. Offering repeated models and feedback about how inquiry can be applied to solve information problems builds students' confidence in applying these strategies to solve their own challenges. Over time, inquiry-based learning enhances one's sense of self-efficacy, promoting an increased sense of personal agency. In this context, young children can generate questions and guide their learning toward a more profound understanding that helps them answer their essential questions (Corio, 2020).

2.2.2 Inquiry-based learning principles

Inquiry-based learning allows learners to become experts of the knowledge they are constructing through self-discovery and trial and error. Teachers' role, in contrast, is to monitor their students' process of constructing new meaning and step in when they need guidance. This reflects the core of inquiry-based learning, a form of learning where students pose their research questions about a topic and set out on a journey to answer them.

In support of the previous claim, Ward (2020) asserted that using inquiry-based learning assisted learners to support their own initiative, encourage a deeper understanding of the content, form their own connections about what they learn, take ownership of their learning, and develop the critical thinking and life skills necessary to be competitive in the 21st century.

Inquiry-based learning has four fundamental principles that distinguish and make it one of the best teaching and learning instructional approaches in the 21st century, as follows:

- 1- Students as researchers.** Based on Dewey's philosophy, education begins with the learner's curiosity; inquiry in the classroom places the responsibility for learning on the students and encourages them to understand concepts by themselves. In this context, Lee et al. (2004) defined inquiry-based learning as an "array of classroom practices that promote student learning through guided and, increasingly, independent investigation of complex questions and problems, often for which there is no single answer" (p. 9). Students develop their abilities to ask good questions, determine what needs to be learned, what resources are required to answer those questions, and share their learning with others, as shown:

Figure 5. Inquiry-based learning key elements. (Lee et al., 2004)



In this respect, Kong and Song (2014) revealed in their study on primary stage students in Hong Kong that the inquiry-based learning approach is a valuable pedagogy for developing learners' inquiry skills, which are essential in the 21st-century. Further, integrating technology into inquiry-based learning helps students demonstrate a basic information literacy competency that is important in the inquiry process. As digital classrooms rise, students are connected and learn in a 'one learner to one computer' setting. Using online learning platforms inside and outside digital classrooms supports resource access and peer interaction to develop students' domain knowledge and inquiry skills. For this reason, incorporating the inquiry-based learning pedagogy into a blended learning environment may thus be a potential method for realizing learner-centered educational goals and driving teachers to apply and reflect on pedagogical designs.

2- Teachers as research assistants. As more classrooms are shifting from teacher lead lessons to a more student lead approach, it is evident that the teachers' role will need to change. The "sage on the stage" is no longer relevant in our ever-changing world. Therefore, the teacher no longer controls what is happening; the teacher is no longer the keeper of all knowledge, as students now have access to anything and everything at their fingertips. In this type of classroom, the teachers need to learn to let go and become facilitators and mentors to their students. In this respect, Chambers (2018) summed up teacher's roles in an inquiry classroom to:

- Take risks and get familiar with ambiguity.
- Expose students to new ideas and issues that are authentic.
- Provide authentic learning opportunities for their students outside the classroom.
- Help their students learn where and how to find credible information.
- Support students' self-learning and being autonomous.
- Connect students to experts and community members.
- Help students reflect on their learning – what worked, what did not, and what will be done differently next time?

3- Peer-to-peer collaboration. When learners learn collaboratively in small groups, they can share knowledge, challenge and negotiate their knowledge, attitudes, and beliefs to maximize learning effects. Therefore, as learners synthesize, communicate, and discuss ideas to develop conceptual understandings, this underlines competence development as a social activity.

That is why successful collaboration is built on shared learning objectives and the appreciation of different ideas or approaches.

This provides a good illustration that learning from peers and sharing ideas with others helps students in an IBL classroom become each other's soundboards, which gives them an authentic audience from which to draw alternative perspectives and test the validity of their ideas (Ismael & Elias 2006; as cited in Ward, 2020). To do this, students need to be engaged in discussions and respond to each other's ideas, and teachers need to scaffold and provide language used to respond to others, such as acknowledging someone else's ideas or showing agreement or disagreement. Furthermore, even if students are working independently on personal essays, teachers can have them conduct peer reviews for further feedback and present their findings and insights to the class, thereby providing a wider audience than just the teacher.

4- Reflecting on learning. Inquiry-based learning is used to promote student comprehension, self-reflection, and research skills. Therefore, it is the most appropriate instructional method if teachers want their students to become better researchers. By implementing an inquiry-based technique, students have more opportunities to reflect on their own learning and thus gain a deeper understanding of the content concepts (Lane and Cawley, 2001). By way of illustration, teachers can pose a leading question on the discussion board at the end of the inquiry process to see how students' responses have evolved based on what they have learned. Language teachers can also encourage reflection through assessment feedback. This helps students identify areas of improvement, and it guides teachers in tailoring their instruction in the future.

2.2.3 Inquiry-based learning levels

Banchi and Bell (2008; as cited in Mishra, 2020) outlined four levels of inquiry teaching and learning, as follows:

Level 1: Confirmation Inquiry

The teacher has taught a particular theme or topic. The teacher then develops questions and a procedure that guides students through various activities. In this type, teachers' involvement is high, making it an excellent method for reinforcing concepts taught and introducing students into learning to follow procedures, collect and record data correctly, and confirm and deepen understandings.

Level 2: Structured Inquiry

At this level, the students seek knowledge in an organized or structured format, with a medium level of involvement or guidance. In this context, the teachers provide the initial question and an outline of the procedure, whereas Students are required to formulate explanations of their findings by evaluating and analyzing the data they collect.

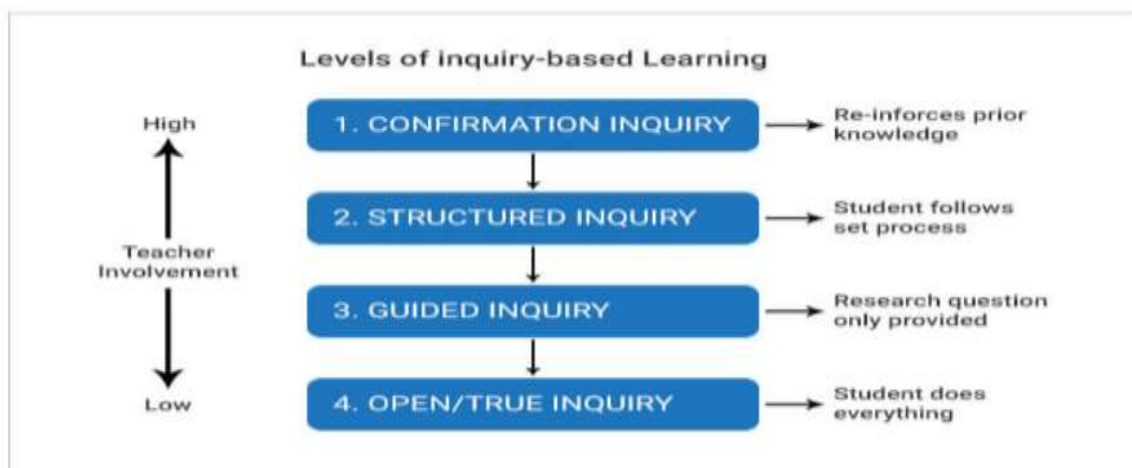
Level 3: Guided Inquiry

The teacher provides only the research question for the students. The students are responsible for designing and following their own procedures to test that question and then communicate their results and findings.

Level 4: Open/True Inquiry

In this type, the students will look up a research topic and investigate independently, without any guidance provided. This provides a profound opportunity for students to formulate their own research questions, design and follow a developed procedure, and communicate their findings and results. That is why open inquiry activities are only successful if students are motivated by intrinsic interests and equipped with the skills to conduct their own research study.

Figure 6. Inquiry-based learning levels (Mishra, 2020)



Hattie (2015) underlined that teachers should begin their inquiry instruction at the lower levels and work their way to open inquiry to develop students' inquiry capabilities. He illustrated his viewpoint by justifying why inquiry-based learning has an effect size of 0.31 when it seems to engage students in the learning process. In this respect, he stated, "when students are still taught at the surface level 'content', they will not be able to provide deep understandings and ideas. That is why teachers should not introduce inquiry too early until they are fully aware that students have at least the sufficient knowledge that enables them to think and go beyond taught concepts."

2.2.4 Applications of inquiry-based learning in EFL literacy in the primary stage

Notably, inquiry-based learning allows students to construct their knowledge using concepts held to solve the problems encountered. In addition to cognitive abilities, inquiry-based learning is built on the assumption that humans have an innate urge to find their own knowledge. Therefore, the main objective of inquiry learning is to help students develop intellectually by providing questions and getting answers based on their curiosity (Andrini, 2016).

As one of some instructional strategies, inquiry-based learning is a strategy that involves students exploring any academic content through investigating, analyzing, and answering questions. Consequently, students are more involved in the whole reading and thinking processes used to derive the knowledge. Besides, inquiry-based learning can enhance students' learning experience, especially in problem-solving skills, explaining the data clearly, critical thinking skills, and understanding concepts in science. In a similar vein, studying a language can also use this approach to help students become more critical and independent in deriving knowledge and develop students' critical thinking.

To prove the previous claim, Oktavia et al. (2021) investigated the impact of inquiry-based learning in promoting students' critical thinking, especially in reading comprehension. This study assured that students need to obtain the information that requires them to analyze the text they read. Therefore, it is suitable to use inquiry-based learning as it prioritizes the learning and experience students bring to the classroom, and it boosts problem-solving actively, outcomes communication, and the shared interpretation of new insight from reading. Additionally, Ermawati et al. (2015) highlighted that inquiry-based learning can improve EFL students reading comprehension through the implementation of the 5E model in students' English language curriculum that allows them to engage with the topic, explore reading comprehension strategies, explain the result of the reading comprehension strategies used, elaborate answers of formulated questions related with the text and evaluate the whole text through finding new connections and make inferences.

Similarly, Al- Jadili (2014) approved that using inquiry-based learning strategy has a high impact on developing reading comprehension and self-regulation among ninth-graders in Gaza. She believed that improving reading comprehension and self-regulation depends on many steps, and these steps can be provided by using (IBL), where (IBL) is interested in creating questions, problems, or scenarios instead of presenting facts. Therefore, through the application of guided reading strategies, students become able to construct meaning. Moreover, she highlights that inquiry-based learning strategy is the most attractive method for students who find difficulty in reading comprehension as it is often used to help students who struggle with reading comprehension. In this respect, both students and teachers discover problems and questions for further examination, which stem from the students' experiences, interests, and needs. This creates an environment where students may use many resources necessary to construct connections between their learning and the observations of others.

Furthermore, Wale and Bogale (2021) investigation of the effects of using inquiry-based writing instruction on students' academic writing skills revealed a statistical difference between the control and experimental groups in their academic writing performance. Hence, students who learned through inquiry-based writing instruction could mainly produce essays that addressed task achievement, coherence, cohesion, lexical resource, grammatical range, and accuracy. Therefore, inquiry-based writing instruction can improve students' academic writing skills because the method incorporates activities-oriented learning, logical arguments, and collaboration. This implies that inquiry-based writing instruction helps students seek, collect, analyze, synthesize, and evaluate information based on their interests.

2.3 Inquiry-based learning and 21st century EFL literacy

Inquiry-based learning focuses on people participating with others, on the lived experiences of feeling, thinking, acting, and communicating. It sees literacy as part of living in the world, not simply as a skill to be acquired in the classroom. Through inquiry, people recognize a problem, mobilize resources, actively resolve it, collaborate, and reflect on the experience. Making sense of experience in this way is fundamental to learning (Bruce and Bishop, 2007).

In fact, it is easy to place media literacy across students' curriculum by engaging in inquiry and literacy, rather than on a narrow conception of media interpretation or production. Therefore, literacy educators need to consciously construct questions that are "productive" (providing students with opportunities to create, analyze, or evaluate) rather than "re-productive" (eliciting recall and repetition of what the teacher said). That is why Rogow (2011) asserted that teaching should concentrate on engaging

students in deep and purposeful reading, meaningful discussion, and thoughtful and effective writing for various target audiences and purposes.

In inquiry-based learning, students work collaboratively to solve a complex problem through several clearly defined scaffolding stages. Moreover, it has been facilitated by the increased access to information prevalent in our networked world. That is why students need to develop information literacy capabilities by finding, filtering, and analyzing data and information—models of inquiry-based learning foreground interaction with information as an essential feature of inquiry learning. For example, Justice et al. (2007; as cited in McKinney, 2013) define stages of ‘identifying resources and gathering information,’ ‘assessing information,’ and ‘weighing evidence and synthesizing understanding’ as part of the inquiry process.

Furthermore, Wray (2006) described modeling information search activities with 6-year-old students engaged in an inquiry-based task. Even at this young age, the students engage with information-intensive activities such as using indexes to support information searching in printed texts. Besides, the American Association of School Librarians (AASL, 2007) highlighted the essential role of the school librarian in fostering a culture of inquiry for learners and in collaborating with teachers to adopt inquiry-based pedagogies. Therefore, WebQuests inquiry activities are often employed by school librarians to teach information literacy. McKinney (2013) also stated that through searching for information, constructing a bibliography, and discussing the validity of the information, students will enhance their information literacy capabilities through conducting various inquiry-based learning activities.

In a similar vein, Rincon and Clavijo-Olarte (2016) accentuated that addressing students’ social reality through various inquiry-based learning activities in the English language class can create learning environments for developing students’ language and literacies. Consequently, when students reflect on what they learned in multimodal texts in English in their blogs, oral presentations, and comments in response to peers on Facebook and their blogs, they are offered remarkable opportunities for inquiry, information gathering, and transformation of curricular practices to make EFL classes more meaningful. In this respect, language learning becomes more than the reading of disclosed practices and accurate isolated words; it becomes the path to read our students’ worlds while scaffolding their learning process by including multiple modes of representing meaning. Therefore, students in the 21st-century use videos, audio, images, and texts as multiple modes of communication to express their learning.

2.3.1 Inquiry-based learning challenges

Oktaviah et al. (2021) agreed that inquiry-based learning is a method of questioning and experimenting, emphasizing students' response-ability, authenticity, and intellectual input that helps activate students' prior knowledge before presenting all the materials provided by the teacher. This stimulates the students to think critically in comprehending reading text since the students have experienced obtaining the knowledge by following 5E steps, namely engagement, exploration, explanation, elaboration, and evaluation.

Although this strategy is considered helpful for students, inquiry-based teaching also has some weaknesses in its application. In social systems that are primarily controlled by teachers, this process can be highly structured. Besides, this strategy cannot be applied to all English materials especially complicated ones, because inquiry-based teaching needs much time in the implementation, while complicated materials are also considered as time-consuming. So, this strategy is not effective to be used in teaching complicated materials. Therefore, teachers should pay more attention to the students' conditions and the materials before implementing an inquiry-based teaching strategy too early (Hattie, 2015).

2.4 Commentary

This chapter described a review of the literature and previous studies concerned with 21st century EFL literacy, inquiry-based learning, and the relation between them in the 21st century. This review was beneficial in organizing and conducting the current study. Through it, the researcher acquired a lot of knowledge and information that were used to lay the foundation for the whole study.

The researcher realized that 21st century EFL literacy expanded to include more than the ability to read and write. However, it includes various types of new literacies that help students cope with their world nowadays, deal with information efficiently, and succeed in their academic and professional life in the future.

Moreover, the researcher highlighted that information literacy, media literacy, and multimodality are essential to be introduced and implemented in young students' EFL literacy curriculums because they are digital natives, and they have to be aware of how to excel in the 21st century. This can be done by guiding and raising their awareness of selecting trustworthy, safe, and reliable resources online/ offline and justifying selecting the selected resource. In addition to critically analyzing and synthesizing information read from various online/ offline resources and connecting

their understandings to their prior knowledge, use modalities, digital tools, and visual displays to express and communicate their understandings of the presented information.

Inquiry-based learning helps create a relaxing and collaborative atmosphere in which students can express their ideas and feelings without being afraid of being criticized. Students work collaboratively, reflect on their own and each other’s understandings and construct meaning as they go on their inquiry process. This helps students to be self-regulated and have ownership of their own learning. As a result, the researcher designed a program based on inquiry-based learning to enhance 21st century EFL literacy.

Based on the previous studies, the researcher aligns in the table below both grade 4 CCSS and P21 Framework standards to create a whole image to visualize an overview of the essential objectives needed for EFL 4th grade students to be 21st century literate.

Table 4. CCSS and P21 Framework 4th grade English Language standards alignment.

Some EFL Literacy Components in the 21st Century	Grade 4 Common Core State Standards	Grade 4 P21 Framework
Multimodal Composition	<ul style="list-style-type: none"> ❖ With some guidance and support from adults, use technology, including the Internet, to produce and publish writing and interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting. ❖ Use digital media and visual displays of data to express information and enhance presentations. 	<ul style="list-style-type: none"> ❖ Communicate information and ideas effectively to multiple audiences using a variety of media and modalities.
Information Literacy	<ul style="list-style-type: none"> ❖ Refer to details and examples in a text when explaining what the text says explicitly and drawing 	<ul style="list-style-type: none"> ❖ Use technology as a tool to research, organize, evaluate, and

	<p>inferences from the text.</p> <ul style="list-style-type: none"> ❖ Conduct short research projects that build knowledge through investigation of different resources. ❖ Paraphrase portions of a text read aloud, or information presented in diverse media and formats, including visually, quantitatively, and orally. 	<p>communicate information.</p> <ul style="list-style-type: none"> ❖ Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies. ❖ Create references and citations, and use footnotes/endnotes.
Media Literacy	<ul style="list-style-type: none"> ❖ Interpret Information presented visually, orally, or quantitatively (e.g., in graphs, diagrams, timelines, animations, or Webpages) and explain how the information contributes to an understanding of the text in which it appears. ❖ Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided. 	<ul style="list-style-type: none"> ❖ Understand both how and why media messages are constructed and for what purposes. ❖ Utilize multiple media and technologies and learn how to judge their effectiveness as well as assess their impact. ❖ Locate, organize, analyze, evaluate, and synthesize information from various trusted sources, social media, and online networks.

Chapter Three

Methodology

Chapter Three

Methodology

This chapter tackles the methodology and procedures used to conduct the study and collect data. Thus, throughout this chapter, a detailed description of the research design, participants, and instrumentation were provided.

3.1 Study Design

A pre-posttest design was used for the following reasons:

- The researcher illustrated the students' status-quo through collecting data about how they deal with online and offline resources (reading online texts, magazines, books, videos, blogs, social media, websites, etc.) critically with awareness, and testing their abilities to do a research paper using different modes to communicate their ideas.
- Therefore, at the end of the experimentation phase, the researcher examined the effect of using inquiry-based learning on enhancing 4th primary stage students' 21st century EFL literacy, which implies their abilities to criticize, analyze and evaluate what they read, hear, and watch online/offline and to create their message understanding the deep impact of including different modes into their research paper on audience and readers.
- The study group was exposed to pre-post means of collecting data (pre-posttest and 21st century EFL literacy rubric).
- Moreover, the researcher used a research paper checklist to guide students while answering the final question in the pre-posttest (Appendix D).
- In addition, a post-study survey was conducted to help the researcher while discussing the study results (Appendix F).
- The study employed a mixed-methods design. The students' performance was analyzed using the quantitative and the qualitative analysis of the results. This provides more validity to the program.

3.2 Participants

Thirty students were randomly selected at Manaret Heliopolis International School (MHIS) in Nasr City, Cairo, Egypt. All students are enrolled at the 4th primary stage and their age ranges are between 9 and 10 years old. This school was launched in 2016, so the majority of the study participants were enrolled at MHIS since they were in KG stage. Moreover, they study all subjects in English, except Arabic and Religion,

that is why they are considered fluent English speakers based on their grade level Common Core State Standards (CCSS).

Despite of being fluent English speakers, they do not meet their grade level CCSS regarding reading and writing and this is shown in their English diagnostic text (Appendix G). Thus, compared to the expected learning outcomes, they are considered below level in reading and writing. That is why the researcher designed an intensive program that can allow the study participants to get exposed to different online and offline resources, so they can critically look for details and analyze content provided through enhancing their 21st century EFL literacy components, like information and media literacy. In addition, the usage of technology allowed them to understand the modes concept and how using different modalities can enhance their understanding of what they read and have a deeper impact on readers as they present their written content.

3.3 Duration of the Treatment

Before experimenting, the researcher conducted a general language diagnostic test, online semi-structured surveys for students and teachers about their online learning experience between March 2020 and June 2020, and a semi-structured interview with students to stand on students' points of weakness, especially after the COVID-19 period (Appendix G). Therefore, the light was spotted on the importance of raising students' awareness while dealing with digital resources and improving their skills to deal with technology in order not to be only consumers of technology, but to be producers, in addition to boosting students' capabilities to comprehend what they view deeply through being engaged into different collaborative activities. The experiment lasted for six weeks, an equivalent of 15 hours approximately.

3.4 21st Century EFL Literacy Components List

The researcher determined the 21st century EFL literacy components in the table of specifications (Appendix B) to be used as a guide for designing the pre/posttest and the rubric. After reviewing the previous studies and literature, the researcher developed a list of 21st century EFL literacy components that helped her develop the instruments used in the study, including the rubric and the pre/posttest. Based on the table of specifications and the program content, the program activities were prepared with the aim of developing 4th primary stage students' 21st century EFL literacy components through giving an intensive focus to information literacy, media literacy,

and multimodality as the main components needed to prepare digitally literate students in the 21st century.

3.5 Instruments

The following instruments were used in this study:

1. 21st-century EFL literacy pre-posttest test
2. A 21st century EFL literacy rubric
3. A 21st century EFL literacy post-study survey

3.6 The pre/post 21st century EFL literacy test

3.6.1 Aim

The researcher prepared this test to assess 4th primary stage students' 21st century EFL literacy. By conducting this test, the researcher could measure to what extent students had developed throughout the experimentation period. Thus, they were given the test both before and after the experimentation duration.

3.6.2 Description

The test (Appendix A) consists of 8 questions. Each component listed in the specification table was given eight marks each. Thus, information literacy items are out of 8 marks and similarly the other two components; media literacy and multimodality. The total test score is 24 marks.

The assigned eight marks for each component were distributed on the sub-components based on each question's difficulty, the effort needed for each one, and the time provided for each item in the instructional program.

The test was designed on www.goformative.com, and students conducted it in the school computer lab.

This test was designed in this format (Appendix A) to match how students received their content through inquiry activities and guiding questions. Thus, each question in the test is paving the way for students to produce their final product and write a research paper communicating their ideas using various modalities.

3.6.3 Content

The test was designed based on the following:

- The list of 21st century EFL literacy components needed for the 4th primary stage students.
- The program of inquiry content and what they need to be digitally literate students while dealing with social media and other online/offline resources with awareness, evaluating what they read, hear, and watch with a critical eye.

3.6.4 Piloting the test

The test was piloted on a group out of 30 EFL students in the 4th primary stage on Tuesday, 15th December 2020, for the following reasons:

3.6.5 Determining the test time

The time of the test was calculated after piloting the test. This was done by calculating the time that each learner took to answer the test and then calculating the average time for the whole group. Thus, the average time of the test was found to be 90 minutes.

3.6.6 Calculation of internal consistency validity

To check the internal consistency of the 21st century EFL literacy components measured through the test, each of 21st century EFL literacy components and the test's total score was calculated after subtracting the targeted 21st century EFL literacy components from the total score. The following table shows the corrected item-total correlation:

Table 5. *Correlation coefficients between the degree of each component and the total test score*

Corrected Item-Total Correlation	Items
**0,61	1
**0,66	2
**0,63	3
**0,69	4
**0,64	5

**0,61	6
**0,63	7
** 0,61	8

It is significant at 0.01level, where the number of students = 30, and this is significant at 0.01level when correlation coefficients are ≥ 0.46

Table (7) illustrates that all the components are statistically significant. This verifies the internal consistency of the test.

3.6.7 Internal consistency of test dimensions

To ensure the internal consistency of the test dimensions, the correlation coefficients were calculated between the degree of each dimension (sub-components) and the total score of the test after deleting the score of this component from the total score, and the following table 8 shows the correlation coefficients:

Table 6. *The values of the correlation coefficients between the score of each component of the 21st century EFL literacy components and the total score of the test*

Dimensions	Sub-components	Corrected Item-Total Correlation
Information literacy	Narrow down research topic	** 0,59
	Ask research questions	** 0,62
	Write references	** 0,66
Media literacy	Evaluate resources	** 0,61
	Analyze & critically synthesize information	** 0,65
	Select safe resources	** 0,59
	Select trustworthy & reliable resources	** 0,64
Multimodality	Communicate information & ideas effectively using a variety of media & modalities	** 0,61

****Significance Level at 0.01**

It is clear from the previous table that all test components are statistically significant to the total score, which indicates the internal consistency of the test components.

3.6.8 Calculating the stability of the overall test

The overall test stability was calculated by:

- **Alpha- Cronbach's coefficient:** Alpha- Cronbach's coefficient was calculated for the test, and its value was (0.84), which is a high value that generally indicates the accuracy and reliability of the test as a means of measurement, and therefore it can be relied upon.
- **Re-correction:** The test was re-corrected by another teacher ¹ , and the correlation coefficient was calculated between the degrees of the two corrections, and it was found that the correlation coefficient is equal to (0.98), which is a high value indicating a robust correlation, which confirms the accuracy and stability of the test and its dependence as a means of measurement.

3.6.9 Testing validity

Test validity was approved by submitting the test to a group of EFL specialized professors, teachers and Primary Year Program language coordinators. Some adjustments were made to the items of the test based on their recommendations and comments. Previously, the test consisted of 14 questions, and it was too long for 4th primary stage students to answer and keep their capabilities to focus for this long period of time.

That is why it was recommended to shorten test questions into eight questions, making sure that these eight questions were covering all the 21st century EFL literacy components that the researcher wants to test. Moreover, they helped the researcher simplify the test language and break down the instructions into short sentences to make students understand test questions independently. Besides, they reviewed the test to ensure that the language used is child-friendly and can suit students in grade four. Furthermore, the researcher did the test firstly on Google Forms, and it was suggested to use Go formative instead because it has many child-friendly features and students are familiar with it.

¹ Reem Kassem, an EFL certified and an experienced English language teacher at Manaret Heliopolis International School

3.7 The 21st century EFL literacy rubric

3.7.1 Aim

The researcher designed a rubric to assess the students' 21st century EFL literacy in the pre/posttest.

3.7.2 The structure of the rubric

Based on the table of specifications of the 21st century EFL literacy components, the researcher developed a rubric consisting of three 21st century EFL literacy components. Each of the three components was rated according to a rating scale ranging from 1 to 4. "1" indicated below level while "4" indicated excellence (Appendix C).

3.7.3 Validity

Some EFL professors, teachers and language coordinators viewed the rubric, and all their insightful comments and adjustments were presented in the rubric (Appendix C). They recommended adding some adverbs and phrases to clearly describe students' different performance levels, like without any guidance provided, faultlessly, slightly, even with support, limitedly, somehow, etc.

3.8 21st century EFL literacy post-study survey

3.8.1 Aim

This survey (Appendix F) aimed at measuring to what extent the program of inquiry was able to enhance 4th primary stage students' 21st century EFL literacy.

3.8.2 The structure of the survey

Based on the 21st century EFL literacy table of specifications, program content and pre/posttest, the researcher designed a structured post study survey consisted of 12 questions to assess to what extent students are aware of the 21st century EFL literacy components they were exposed to and to make sure that the posttest results indeed reflected students' understandings of these components.

3.8.3 Validity

The post study survey was designed to make sure that students' results in the posttest reflected their deep understandings of the 21st century EFL literacy components and to help the researcher in discussing the test results. Besides, it was used as a tool to validate posttest results through asking them about all test items in an indirect way. In addition, through written reflections that were attached to the post-study survey, students were able to show how they can extend their understandings of the 21st century EFL literacy components and use them in unfamiliar situations.

3.9 The 21st Century EFL Literacy Program

3.9.1 Aim

This program (Appendix E) aimed at enhancing primary four students' 21st century EFL literacy.

3.9.2 The overall objectives of this program

By the end of this program, the learners are expected to:

1. Form research questions.
2. Narrow down any research topic into phrases or sentences to access the relevant information easily.
3. Select trustworthy, safe, and reliable resources online/ offline and justify selecting resources.
4. Critically analyze and synthesize information read from various online/ offline resources connecting their understandings to their prior knowledge.
5. Use modalities, digital tools, and visual displays to express understandings of the information presented online/offline in a written format.
6. Understand the importance of providing references at the end of their work and how to write them correctly.
7. Understand the impact of adding different modes to their presentations to communicate the ideas.

3.9.3 Content of the program

Throughout the program, the learners were given several sessions to enhance their 21st century EFL literacy. It consisted of 11 sessions. The first session of the program was an introductory session. The researcher tried to present the whole program to students to give them a chance to consider the importance of these literacy

components on enhancing their abilities to learn better and be digitally literate citizens in the current era.

Concerning the rest of the sessions, different activities were introduced to encourage students to inquire into different concepts to construct meaning, reflect on their learning, and develop 21st-century EFL literacy components required by critically viewing various online/offline resources and questioning them collaboratively.

3.8.4 Learning and teaching strategies and techniques

Inquiry-based learning was the main strategy that was used to enhance 4th primary stage students' 21st century EFL literacy. Students were asked to form questions, work collaboratively in small and big groups, and reflect on their learning experiences using different visible thinking routines, like see, think and wonder, zoom-in, 321 bridge, connect, extend and challenge, etc. Thus, they were engaged in problem-solving and collaborative activities. They were divided into several groups to finish specific tasks, and they cooperated to achieve predetermined goals.

Guided inquiry-based learning was used to help students make sense of what they read, watch and hear in different online/offline resources and construct meaning through continuous reflections and differentiated designed products to express their understandings of the materials they are exposed to.

3.9.5 Assessment

The researcher used a rubric to assess the students' progress throughout the program. The rubric consisted of three 21st century EFL literacy components, namely: information literacy, media literacy, and multimodality.

To assess the students' progress, the researcher designed a pre/posttest. Students conducted the test on the first and last session in the program. The researcher then compared the pre and post 21st century EFL literacy test results to measure students' progress throughout the program.

Chapter Four

Analysis and Discussion of Results

Chapter Four

Analysis and Discussion of Results

This chapter was divided into two sections. The first section comprised the statistical results of the study findings obtained from the application of the program and the instruments used in the pre/post-test. Furthermore, the second one contained the researcher's qualitative analysis, interpretation, and discussion of the pre/posttest results.

4.1 Results of the Study

4.1.1 Testing the validity of the first hypothesis

The first hypothesis states that there is no statistically significant difference between the mean scores of the study participants on the pre and post-test in terms of the enhancement of the 21st century EFL literacy sub-components. Thus, to verify this hypothesis, the paired-samples t-test was used to detect the significance of differences between the pre-and post-application as shown below:

Table 7. *T-test results for the significance of differences between the mean scores of the students' "study group" 21st century EFL literacy sub-components on the pre and post-test, where the number of students = 30 and degrees of freedom= 29*

21 st century EFL literacy components	Sub- components	Mean		Std. Deviation		T-test	Sig.	Effect size (η^2)
		pre	post	Pre	post			
Information literacy	Narrow down a research topic	0.87	1.48	0.37	0.25	7.526	0.000	0.66
	Ask research questions	2.00	3.27	0.64	0.58	10.846	0.000	0.80
	Write references	0.77	1.17	0.77	0.56	4.252	0.000	0.38

	Total Information literacy	3.63	5.92	0.94	0.89	12.227	0.000	0.84
Media literacy	Evaluate resources	0.87	1.68	0.39	0.34	11.062	0.000	0.81
	Analyze & critically synthesize information	1.90	3.17	0.76	0.63	10.846	0.000	0.80
	Select safe resources	0.56	0.90	0.24	0.17	9.256	0.000	0.75
	Select trustworthy & reliable resources	0.57	0.87	0.25	0.19	6.595	0.000	0.60
	Total Media literacy	3.89	6.62	1.23	1.18	17.119	0.000	0.91
Multimodality	Communicate information & ideas effectively using a variety of media & modalities	3.07	6.00	1.14	0.55	12.846	0.000	0.85

Table (7) showed that the significance level (sig) is less than (0.01). This indicated that there is a statistically significant difference at the 0.01 level between the mean scores of the study group on the pre and post 21st century EFL literacy test in terms of the development of its sub-components in favor of the post-test scores. This means that the first hypothesis should be refused. Therefore, the alternative hypothesis is to be accepted. Thus, it can be concluded that there is a statistically significant difference between the mean scores of the study group on the pre and post 21st century EFL literacy test regarding the development of its sub-components in favor of the post-test scores.

To calculate the effect size, an ETA squared test is used as Ezzat (2016) illustrated that the effect size is calculated using the following mathematical formula:

$$\text{Effect size } (\eta^2) = t^2 / (t^2 + df)$$

df= degrees of freedom

t= t-calculated

η^2 is interpreted as follows:

If $(\eta^2) < 0.010$, then the effect size or the relation is weak.

If $0.010 \leq (\eta^2) < 0.059$, then the effect size is low.

If $0.059 \leq (\eta^2) < 0.138$, then the effect size is average.

If $0.138 \leq (\eta^2) < 0.232$, then the effect size is high.

If $0.232 \leq (\eta^2)$, then the effect size is very large.

From table 9, it is clear that the calculated effect size, expressed by the ETA squared, equals 0.232, which is a very large effect size. This indicates that using inquiry-based learning effectively enhances 4th primary stage students' 21st century EFL literacy sub-components.

4.1.2 Testing the validity of the second hypothesis

The second hypothesis states that there is no statistically significant difference between the mean scores of the study group on the pre and post 21st century EFL literacy test regarding the development of the 21st century EFL literacy components as a total score. Consequently, to verify this hypothesis, the paired-samples t-test was used to prove the significance of differences between pre-and post-application, as illustrated below:

Table 8. *T-test results for the significance of differences between the mean scores of the 4th primary stage students' "study group" '21st century EFL literacy components as a total score' on the pre and post-test in favor of the post-test, where the number of students = 30 and the degrees of freedom = 29*

Components	Mean		Std. Deviation		T-test	Sig.	Effect size (η^2)
	pre	post	pre	post			
21 st century EFL literacy components as a total score	10.59	18.53	2.51	3.06	19.643	0.000	0.93

Table (8) demonstrated that the significance level (sig) is less than (0.01). This indicated a statistically significant difference at the 0.01 level between the mean scores of the study group on the pre and post 21st century EFL literacy test in terms of developing the 4th primary stage students' 21st century EFL literacy components as a total score in favor of the post-test. This means that the second hypothesis should be refused. Therefore, the alternative hypothesis is to be accepted. Thus, it can be concluded that there is a statistically significant difference between the mean scores of the study group on the pre and post 21st century EFL literacy test regarding the improvement of the 4th primary stage students' "21st century EFL literacy components as a total score" in favor of the post-test scores.

It is clear that the calculated effect size, illustrated by the ETA squared, equals 0.232 which is a very large effect size. This reflects that using inquiry-based learning is highly effective in enhancing 4th primary stage students' 21st century EFL literacy components.

4.1.3 Measuring the effect of the suggested program

The effect size in the previous table is extensive, and this indicates the effect of the suggested program to enhance 4th primary stage students' "study group" 21st century EFL literacy competencies. However, the percentage of the correct gain ratio is calculated to estimate the effectiveness of the suggested program based on using inquiry-based learning, and the relation is illustrated as follows:

$$CEG_{ratio} = \frac{M_2 - M_1}{P - M_1} + \frac{M_2 - M_1}{P} + \frac{M_2 - M_1}{M_2}$$

CEG_{ratio} = The correct gain ratio

M_1 = The average of the pre-test results

M_2 = The average of the post-test results

P = The highest test mark

Thus, if the correct gain ratio is less than 1.5, the program is ineffective, whereas if the correct gain ratio lies between 1.5 and 1.8, then the program is averagely effective. However, if the correct gain ratio exceeds or equals 1.8, the program is satisfactorily effective or effective, and the table below illustrated the gain ratio as follows:

Table 9. *The average ratio of the study group in the 21st century EFL literacy pre/posttest and the percentage of the correct gain ratio of Ezzat (2013)*

Components	Full Mark	Mean scores		Ezzat Correct Gain Ratio	Significance
		Pre M_1	Post M_2		
21 st century EFL literacy components	24	10.59	18.53	2.37	effective

As shown in table (9), the correct gain ratio exceeds 1.8, demonstrated that the program designed based on inquiry-based learning was highly effective at enhancing 4th primary stage students' 21st century EFL literacy components. In this respect, the main research question "What is the effect of using inquiry-based learning on enhancing 4th primary stage students' 21st century EFL literacy?" is answered.

4.2 Discussion of Results

Statistical analysis results showed a statistically significant difference between the mean scores of the study group on the pre and posttest in terms of enhancing students' "21st century EFL literacy components generally" in favor of the scores of the students' post-test. This was presented through the two hypotheses and table (11).

This depicts the effect of using inquiry-based learning on enhancing 4th primary stage students' 21st century EFL literacy.

Similarly, the statistical analysis results for the three main 21st century EFL literacy components and their sub-components measured throughout this study indicated that there is a statistically significant difference in each of the 21st century EFL literacy sub-component between the students' mean scores on the pre and post-test in favor of the scores of the posttest. Therefore, inquiry-based learning can effectively enhance 4th primary stage students' 21st century EFL literacy components.

4.2.1 Qualitative Analysis of the Study Group Performance

The researcher collected and analyzed the students' reflections and discussions throughout the study program and their responses to the pre/posttest and the post-study survey. Besides, the researcher interpreted students' performance while conducting the program and the pre/posttest, mentioning challenges faced by students and how this study raised their awareness to deal with online and offline information and their capabilities to comprehend and express their opinions using various media and modalities.

4.2.2 Analysis of the students' responses, reflections, and discussions concerning the targeted 21st century EFL literacy components

The program sessions highly enhanced 4th primary stage students' "21st century EFL literacy". Throughout the study program, students participated in different guided inquiry activities, visible thinking routines, and collaborative work to promote 21st century EFL literacy components. Following are the 21st century EFL literacy components and how they were enhanced throughout the program:

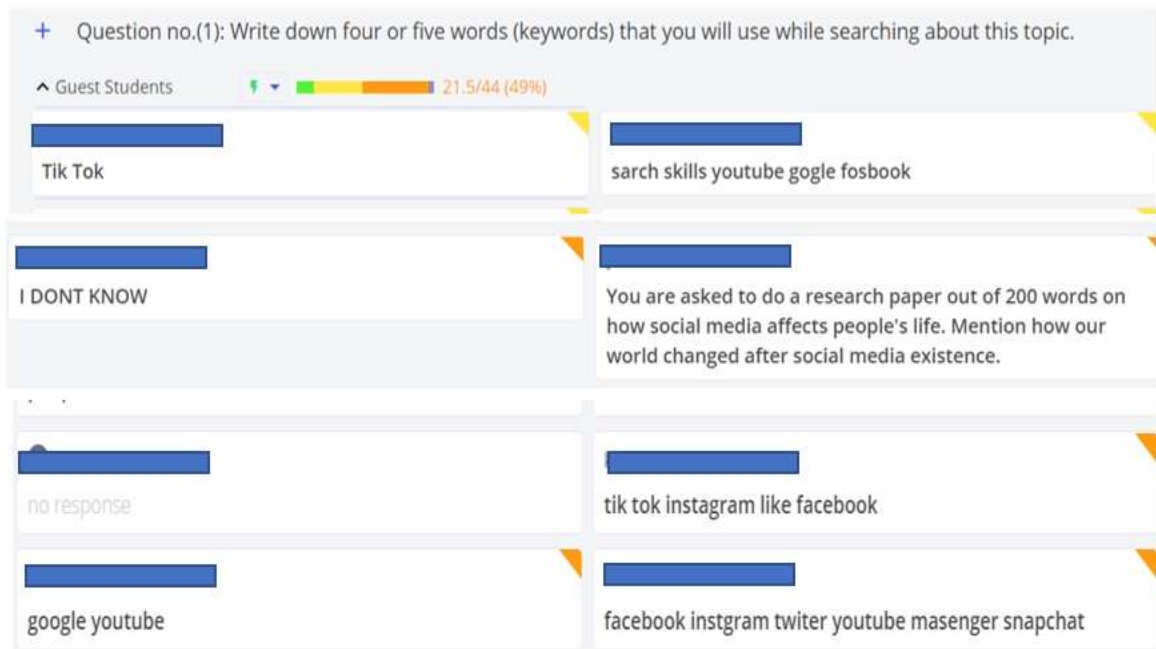
4.2.2.1 Information Literacy

In the pre-test, the researcher noticed that many students could not narrow down a research topic to select relevant information, they mixed between research and non-research questions, and they did not have sufficient knowledge of the term "references" and how to write them correctly. Moreover, some of the study group's parents highlighted that when students were given a research task, they are not able to answer it, and they always ask for help, saying, "What should we write to find answers?", "What information should I select?", "Will I read all of this?" and "What to write at the end?". Besides, they conveyed that research tasks were very challenging for them and their children. That is why information literacy is essential

for today’s students “digitally migrant”; it promotes problem-solving and thinking skills through asking questions, finding information, forming opinions, evaluating sources, and making decisions (Scottish Information Literacy Project, 2013).

In this respect, the program successfully raised students’ awareness of the concept of “references” and why they should give credit to others’ contributions in their work. Moreover, through various collaborative inquiry activities, students could narrow down a research topic and produce multiple phrases and sentences to access relevant information suitable for their age and ask powerful research questions to help them think deeply and build profound ideas.

Figure 7. Samples of students’ answers in the pre-test to question no. 1



As shown in the figure above, most students’ responses to the first question were vague, and this did not allow them to access relevant information and as noticed, one of the students copied and pasted the question. The researcher asked him why he did so; he answered, “I do not know what to write, but I think that if I copied and pasted the question, this will help me find the answer.” Similarly, students could not identify what is meant by “references,” so their answers were unclear. However, when teachers supported them by asking them some guiding questions, they could somehow write better answers through writing website links, the title of an online blog, and the date. Still, they did not understand the purpose of writing references and how to write them, as shown in students’ responses in the pre-test:

Figure 8. Samples of students' answers in the pre-test to question no.7



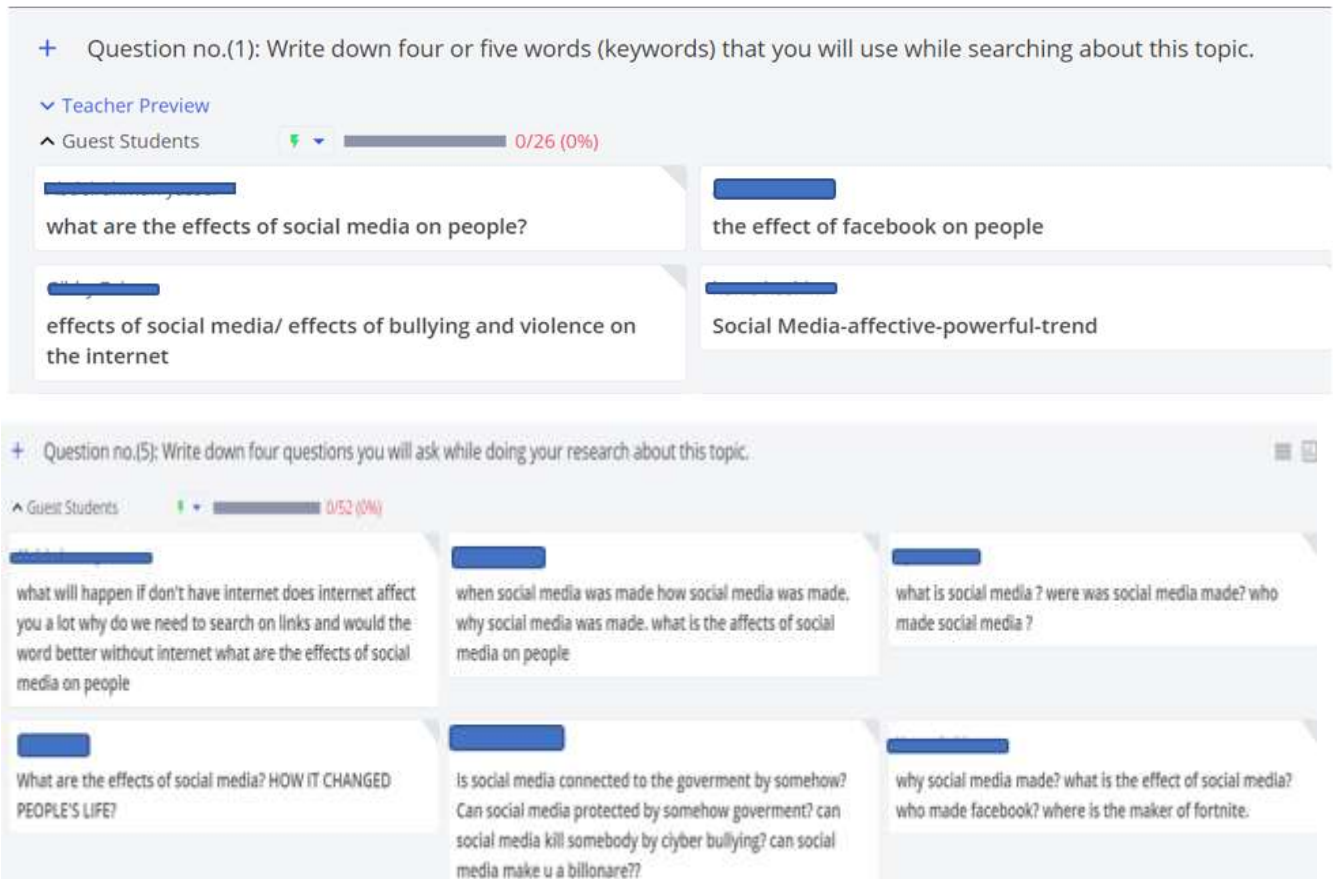
On the contrary, students could write good research questions in the pre-test, but they mixed between open-ended and close-ended questions. After support and continuous guiding questions to some students, they could write better questions as illustrated in the figure below:

Figure 9. Samples of students' answers in the pre-test to question no.5



Consequently, the program gave students opportunities to ask questions, work in groups collaboratively and reflect on each other’s work using various visible thinking routines. This allowed students to be aware of the importance of mastering these components to have better learning. By comparing students’ post-test answers to their pre-test answers, a remarkable achievement was noticed in their responses and attitudes towards learning, as shown in the following figure:

Figure 10. Students’ responses in the posttest to questions number 1&5



Students worked collaboratively using different thinking routines like see, think, and wonder, think, puzzle and explore, zoom in, etc., to enable themselves to visualize their thinking while working together in small groups throughout the program. Besides, to produce more vital questions, students did many inquiry activities like categorizing the weak ones and the strong ones and rewriting them to have a profound impact using what if, why, how, etc. This raised students’ awareness that the deeper the question is, this will provoke their curiosity and encourage them to dig deeper and go beyond the assigned task limits.

Furthermore, there was an integration between the ICT teacher and the language teachers to equip students with the required ICT skills needed to search effectively, like narrowing down a research topic or a research question and ensuring that information is accurate. They also learned how to write references correctly through writing the author’s name, date, the book, video, article, etc. title, and the website link if it is an online resource, as illustrated in their answers in the posttest:

Figure 11. Students’ responses in the posttest to question number 7



As described, students’ answers reflected their awareness of the concept of “references” and why they should give credit to people’s contributions in their work. Despite students’ remarkable progress in all information literacy sub-components, writing references was the most challenging task throughout the whole program. This was shown in students’ answers in the post-study survey as 65% stated that they could somehow write references, but they still needed their teacher’s help, and 4% of students could not do it at all while 30% only could write references independently. This happened due to students’ young age and their first exposure to such concepts as they used to copy and paste information from different websites, and they were not aware that this is unethical. Thus, they had to write references and paraphrase what they read in their own words.

Figure 12. Samples of post-study survey results



However, the score of writing references was the lowest compared to other information literacy sub-components; students' posttest and post-study survey results showed that students were aware of the concept. This indicated that the study program enhanced students' awareness and their capabilities to inquire and collaboratively try to find answers independently and discuss possible solutions to be self-regulated and life-long learners.

Likewise, using research outlines throughout the study program was successful in helping students to go step by step towards mastering research skills, practicing organizing ideas, and writing down questions and phrases that can assist them in accessing efficiently. Ultimately, "information literate people are those who have learned how to learn. They know how to organize knowledge, how to find

information, and how to use information in such a way that others can learn from them” (The American Library Association Presidential Committee on Information Literacy, 1989; as cited in Ranawerra, 2007).

Figure 13. Sample of a research outline

Research Paper Outline

(1) Topic I'm going to search about:
The effects of social media

(2) Questions I will ask:
What are the effects of social media?
Why do we need social media?
What are the bad effects of social media?

(3) Phrases and sentences I will use while searching online about this topic:
Social media effects
bad effects of social media
What are good effects of social media?

(4) What I already know about this topic:
I know that it has a lot of effects

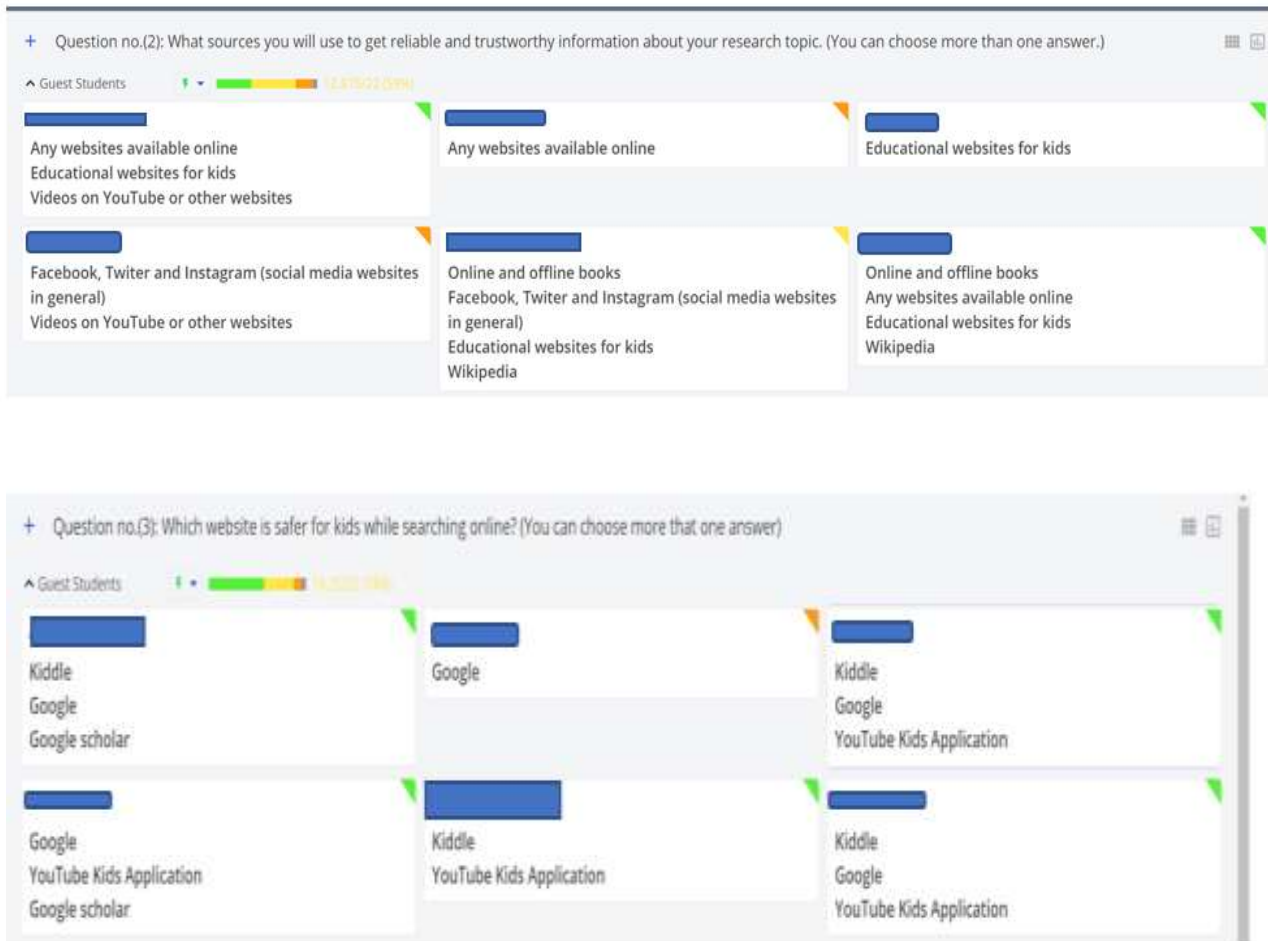
(5) What I want to know about this topic:
What are the effects of social media?

(6) What sources/materials I will use to find answers to my questions:
Google
YouTube

4.2.2.2 Media Literacy

In the pre-test, the researcher noticed that students could not select online resources to get accurate information, and they could not paraphrase or summarize the information they read online. Besides, they were not fully aware of the safe and trusted platforms, websites, applications, etc. that students of their age could use safely without being exposed to inappropriate content or deal with unknown adults. Following are samples of their answers in the pre-test:

Figure 14. Examples of students' answers to questions no. 2 and 3 in the pre-test



As demonstrated, students' selection of safe and trustworthy resources slightly highlighted their understandings of the concept and the importance of keeping themselves safe online. In contrast, when they were given a research task at school, teachers noticed that inappropriate content might pop up on their screens, and they did not deal appropriately in such situations. Besides, they did not know how to avoid or minimize such things from happening. Furthermore, parents shed attention on the importance of teaching this to children, especially that lately, they started getting exposed to online content during their leisure time and during their study time due to the shift to online learning. This expanded the time they spent online, and this might make them unsafe if they were not entirely digitally literate.

In this context, the MHIS school principal was highly motivated to collaborate in the study program and provide online safety awareness sessions to boost students' conciseness of how to keep themselves safe while using online resources, games,

media, applications, etc. Students participated actively in the awareness sessions. They created an awareness campaign and spread posters online on Canva (ICT subject integration) and on charts along school corridors to help other kids avoid improper communications and content online (Appendix H).

Additionally, during the study program, students put their heads together to evaluate different online resources and determine if they were safe, current, and accurate or not. They watched an online video that gave them tips to choose trusted online resources and to search effectively to prevent being exposed to obscene content. Moreover, they learned how to evaluate online resources using CRAAP Method; currency, relevance, author, accuracy, and purpose.

Figure 15. Samples of students’ post-test answers to question no. 4

Question no.(4): Which two links will you choose? Open each one, read its content, decide what to choose and write why you chose it.

A- <https://www.bbc.co.uk/newsround/48184022>
 + B- <https://www.simplilearn.com/real-impact-social-media-article>
 C- https://en.wikipedia.org/wiki/Social_media
 D- <https://summitpsnews.org/2020/03/24/social-media-has-changed-the-lives-of-modern-society/>
 E- <https://www.youtube.com/watch?v=kiW09TFYE74>

[Redacted] d i chose this website because it tells good and simple facts
 [Redacted] e i chose this website because it tells true things and the man tells his opinon
 [Redacted] B- it told me why people share information and some information about sopcial media.
 [Redacted] D- it gave me how social media changed the lives of mo
 [Redacted] -B Because I think it has facts and it is sfe for kids like me , and has the word real , and info about the author
 [Redacted] -A Beacuse it is info from BBC and BBC is trusted .
 [Redacted] A- IT GIVE REAL AND EASY INFORMATION . IT IS FOR KIDS.

[Redacted] i choose \\www. [bbc.co.uk](https://www.bbc.co.uk/newsround) newsround because it are the most i understood from
 [Redacted] I choose a and e because they make you understand and they are simple in there explanation and they also seem safe.
 [Redacted] I CHOSD 2 B 1 A FIRST OF ALL I CHOSD. 2 B BECAUSE IT LOOKS FOR KIDS AND IT CAN BE TRUSTED SO ITS A GOOD IDEE TO CHOSE IT AND IT HAS UP THE WORD reel
 [Redacted] A1 I CHOSD A BECAUSE IT HAS BBC
 [Redacted] https : // www . youtube . com / watch ?v=kiw09tfye74
 [Redacted] https://www.bbc.co.uk/48184022
 [Redacted] BECAUSE it helps us learn about the world. it has trust information. because if we heard of this information in real life.

Comparing students’ pre-test answers to their post-test answers, the researcher noticed to what extent they could deal with online resources, paraphrase their content,

and mention their opinions by analyzing and synthesizing information presented. During the study program, students were not aware of what the word paraphrase meant, and they had difficulty getting its meaning and how this could be done due to their young age. Therefore, the researcher used the word summarize instead to simplify the concept and make students aware that copying other people’s work is unethical. They could avoid so by summarizing others’ words and referring to their names in the references section.

Students were exposed to different reading texts online and offline, and they worked collaboratively to summarize their content and reflect their own understandings of these resources. They also assessed each other’s work to give each other constructive feedback. They read during online sessions using Nearpod and Zoom applications and during offline sessions using Jigsaw reading strategy to enhance their capabilities to read fluently, communicate their own understandings, analyze and synthesize information they read, and understand meanings of unknown words through context (Appendix H).

Figure 16. Examples of students’ responses to question no. 6 in the post-test

21st Century EFL Literacy Post-test Edit Assign View Responses PAESLM

Totals 1 2 3 4 5 6 7 8

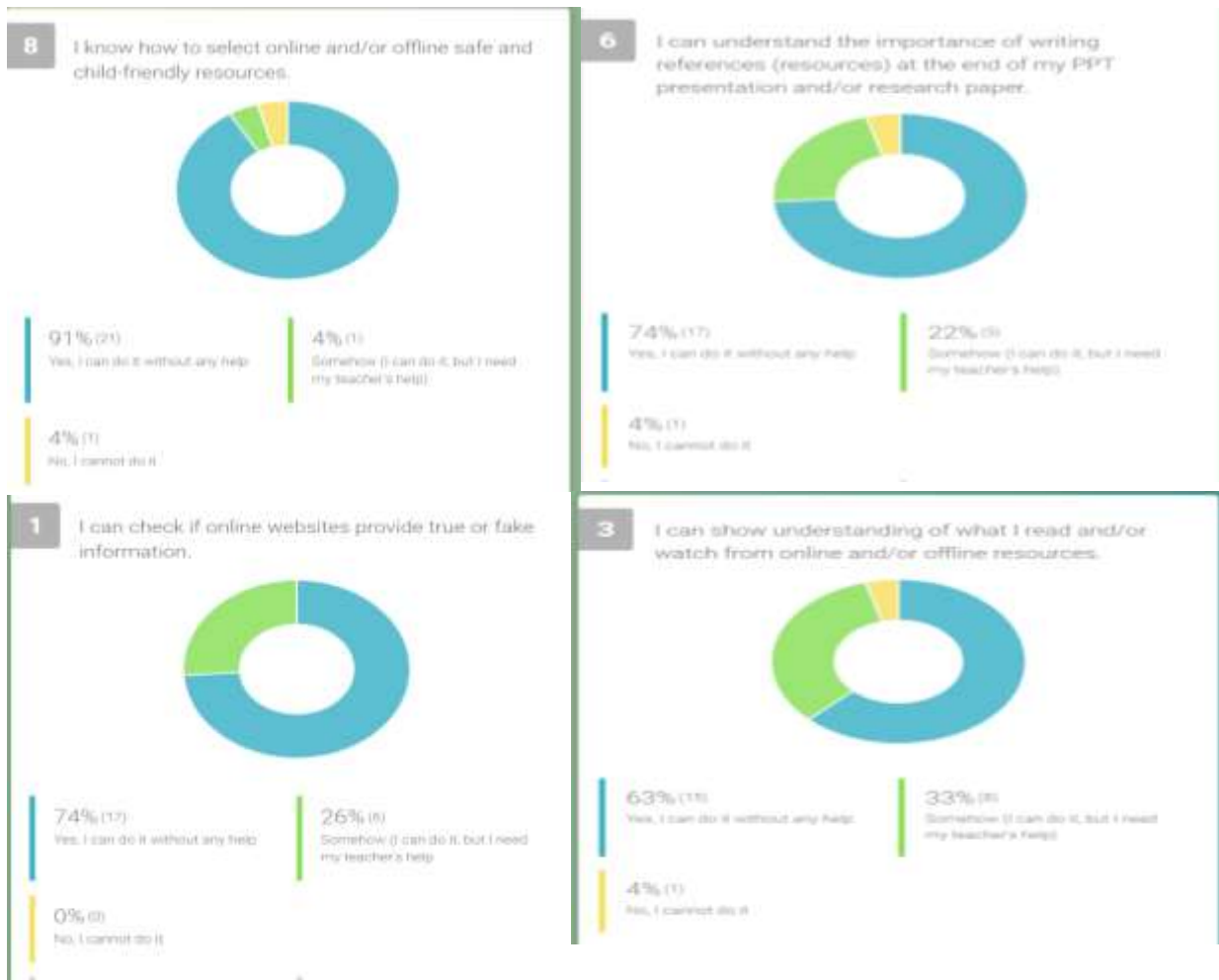
Question no.(6): Write your understandings and your opinion about social media and how it affects our daily life from the links you chose.

Guest Students 0/26 (0%)

<p>i think its good because when you dont understant something you can serch it on safe links but you need to be smart to know what link is safe. it sometimes fun because you can play with youre friends but dont play or accept strangers</p>	<p>social media is bad because it make you lazy, but it is good because you can learn from it and serch for information.</p>	<p>social media has bad effects on peoples daily life. social media is dangerous. social media is sometimes usfull. social media is really popular. it gives information.</p>
<p>I THINK ITS GOOD CAUSE PEOPLE LIKLE USING BROWSERS AND APPS THAT CAN INSPIRE THEM. THERE CAN ALSO BE BAD THINGS LIKE HACKERS NON TRUSTED WEBSITES AND FAKE PEOPLE.</p>	<p>my opinon is that its not very good for children because it is very effective for them it might even effect or damage their brain cells and get very sick or maybe wear glasses for the rest of their life unless they get the laser eye.</p>	<p>social madia is really bad and good becuse bad thing it can make you lazy and the good thing is you can learn infor.</p>

To point out the previous pieces of evidence, students' answers to the post-study survey demonstrated that 74% of the study group could independently check if the information provided on different websites is accurate or not. Moreover, 63% could independently show their understanding of what they read or watch, while 33% still needed help while dealing with different online or offline resources. Besides, 91% of them could select safe and child-friendly online resources without any help provided, as shown below:

Figure 17. Samples of post-study survey results



Students' reflections and the evidence presented thus far support that the study program could successfully raise students' awareness of the importance of selecting safe and trustworthy resources and communicating their understandings of different resources either online or offline through analyzing, synthesizing the information presented stating their opinions clearly. By way of illustration, A1 said to his friends while working in small groups, "Make sure not to copy and paste words are they are,

write what you understand.” M1 reflected, “ I learned that if the website has adverts, so it could be an advertising site or link. I have to check other websites cause this could be fake or biased.” Besides, M2 said, “ I can know if the website is good or not if I found in the search bar edu. (means education), gov. (means government), UK, etc. This means that these websites are true and they have trusted information.” Additionally, Y said, “ If I want simple information, I add the word ‘for kids’ to anything I write in the search bar. This way, I can get simple and easy information good for my age.”

4.2.2.3 Multimodality

Due to the rapid technology development, multimedia provided multiple opportunities to present various representations of content knowledge. As pointed out, multimedia refers to the various representations of content in which it is possible to combine text, video, audio, images, and interactive elements. Thus, it involved delivering information in different presentations and creating interactivity between these representations, leading students to perceive the content knowledge easily, constructing meaning, and leading to learning improvement (Suparmi, 2017). In the pre-test, the researcher noticed students’ need to understand that information nowadays is way complicated, and content is mainly presented using various modes. All these modes work together to create meaning and provide even hidden messages that only people aware of the power of semiotic language and modalities can interpret.

During the study program, the researcher used adverts as content for students to interpret and analyze because they include multiple modes. Moreover, adverts deliver many hidden messages in their content to convince customers to buy certain products or adopt a particular case. Students also collaboratively questioned different modes used in adverts and started to investigate social media and various applications and see how they use the power of modes to profoundly impact people.

Through various inquiry activities and guiding questions, students also investigated how modes nowadays are misused in social media and how they might be used to fraud information, spread rumors and fake news (Appendix H). Throughout the learning process, students reflected their understanding either through writing or orally. For instance, H said, “Images on Facebook or any application are not always true; people fake images to spread bad news about people. We have to think well and use our thinking skills to know the truth.” Y2 also commented, saying, “Adverts use modes like colors, sounds, images, etc. to let us do what they want. However, they

may be giving us wrong information, and they may let us want something we don't really need or bad for our health.”

Due to students' young age and their first exposure to the concept of modes, the researcher, at first, introduced the concept through presenting a blank PPT slide just written on it ' It is raining.' Then, another slide was added, including a picture and the same sentence. After that, she added to the slide a short video and the same sentence. Students were asked about what they noticed and how adding sound, image, words, and movement to the slides had a more profound impact. A student reflected, saying, “I see that if anything I cannot understand is presented to me using different modes, I will understand it easily.”

In the post-test, students communicated their thoughts using various modes and modalities. They were also given a guiding checklist to remind them of the essential requirements they needed to add to their research paper to impact readers and audience profoundly (Appendix H). The following checklist was given for two reasons: First, students are young, and they will not be able to keep in their minds all details needed to be added to their final product or research paper in the pre/post-test. That is why it was a guiding tool to remind them of needed requirements. Second, it is used as a self-assessment checklist that students will use at the end of the pre/post-test to check if they included all the required components in their research paper either on Word or PPT or not. This instrument did not only help them to be aware of good research paper criteria, but it helped boost students' sense of responsibility towards their work and what they should do to improve it.

Figure 18. Sample of a student's post-test research paper checklist

Items to check	Yes	No
1-You wrote in your words what you understood about social media and its effect on people's life.	☺	
2-Your paper is organized using title and headings.		☹
3-You included modes like pictures, graphs, videos, audio and/or captions in your paper that are related to your research topic.	☺	
4- You wrote 200 words.	☺	
5- You wrote the references/ sources (websites, books and/or videos) you used at the end of your paper.	☺	

Indeed, students' answers to the final question in the post-test reflected to a great extent that they could communicate their ideas using various modes and they could apply all that they have learned throughout the whole study program. Besides, their answers to the post-study survey assured the previous pieces of evidence, as 70% of the study group could independently use different modes in their presentations while 30% still needed guidance and assistance from their teacher. This illustrated how the inquiry-based learning program was beneficial to enhance students' 21st Century EFL literacy. However, the adverts' content was interesting for students to inquire into, it was challenging for them to interpret hidden messages, use modes, and understand the author's and creator's point of view on their own. That is why 52% of students stated in their post-study survey that they needed the teacher's assistance and guidance to look deeply for meaning and construct it collaboratively through conducting various inquiry activities, as shown below:

Figure 19. Samples of post-study survey results



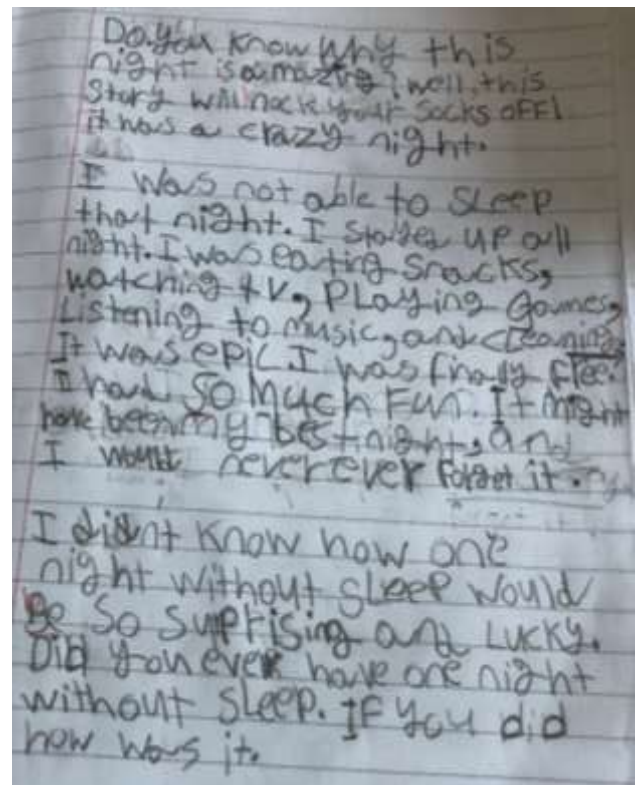
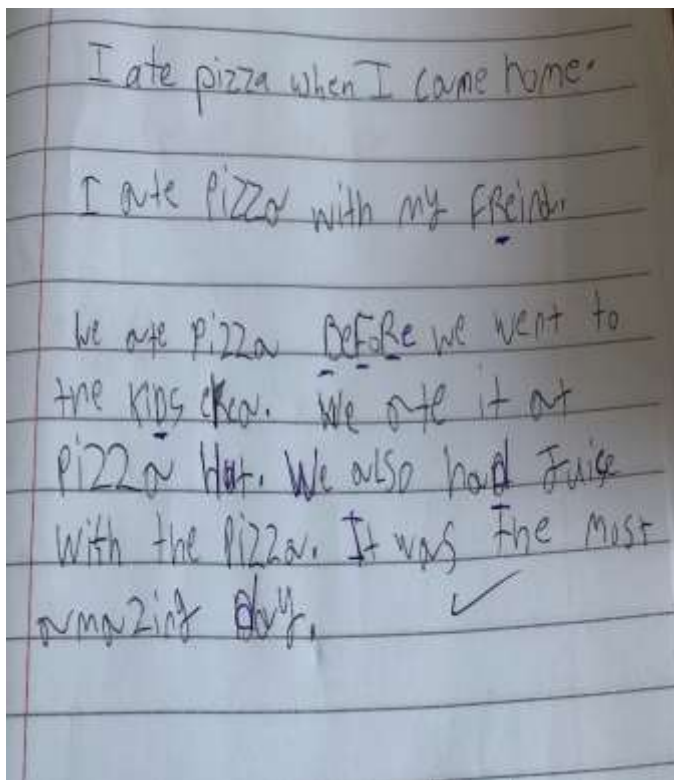
In conclusion, the suggested inquiry-based learning program raised students' awareness of digital media and resources they had access to by questioning and discovering them. Moreover, it developed students' reflective thinking by analyzing, criticizing, and synthesizing different resources they read online and offline. It also engaged students in the learning process by asking questions, creating hypotheses, and testing their understandings through collaborative work and continuous reflections.

Similarly, Wale and Bishaw (2020) confirm that students' critical thinking has been enhanced through applying inquiry-based learning instruction because it focuses on the process of knowledge discovery. This involves students in seeking, collecting, analyzing, synthesizing, and evaluating information, creating ideas, and solving problems through communication, collaboration, deep thinking, and learner autonomy.

4.2.3 The impact of the suggested inquiry-based learning program on enhancing 4th primary stage students' EFL literacy in general

The suggested study program did not only help 4th primary stage students to deal effectively with online resources, but it enhanced their reading comprehension and writing fluency due to being exposed to different resources and ideas that elevated their thinking and enriched students' ideas to express themselves in various ways.

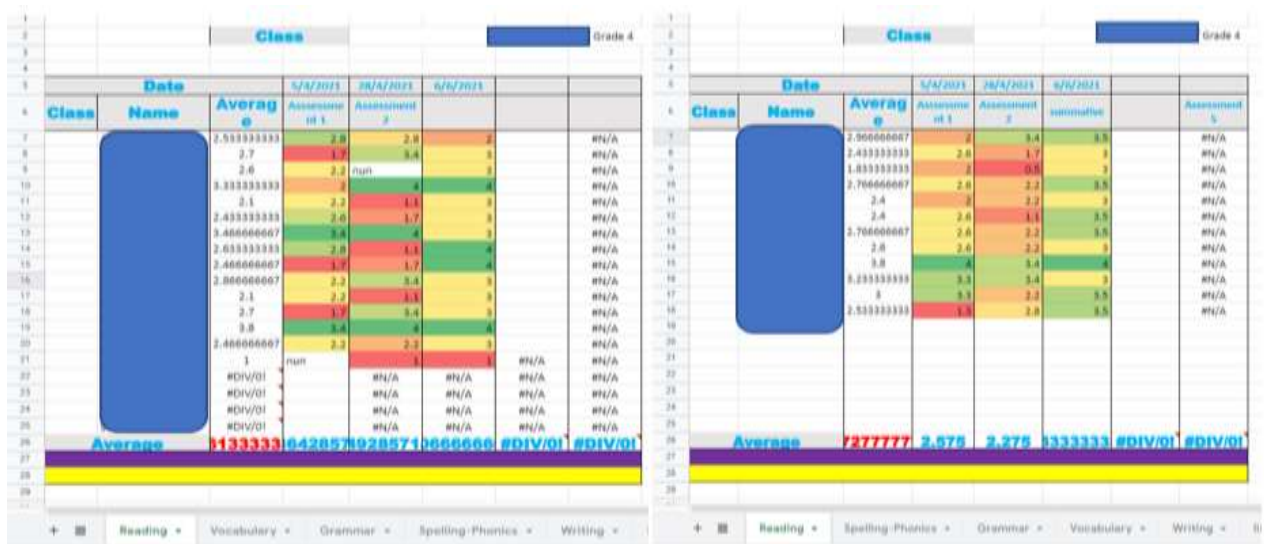
Figure 20. Samples of a student's pieces of writing before and after conducting the study program



Based on the evidence provided, students' general writing performance had been enhanced to a great extent. They could write longer sentences using different sentence structures and more advanced ideas and vocabulary in their writing pieces. This indicates that inquiry-based language learning helped promote lifelong education that enabled EFL learners to continue the quest for knowledge throughout life (Rejeki, 2017; as cited in Wale and Bishaw, 2020). Throughout the study program, students engaged in various collaborative writing and reflection tasks to generate ideas, narrow down and clarify research topics, exploring information from multiple sources, explain discoveries gained from the exploration and elaborate their thinking into authentic situations.

Conducting the inquiry-based learning program enhanced 4th primary stage students' reading ability to understand various texts by engaging in multiple collaborative activities that enabled them to read in small groups and interpret their understandings using different visible thinking routines and questioning strategies. This is demonstrated in students' results in reading in various reading formative assessments they took while conducting the study program, as shown below:

Figure 21. The study group students' results in different reading assessments done while conducting the study program



Overall, students' results indicated that using inquiry-based learning strategies can enhance students' reading performance by giving them a chance to construct meaning, select appropriate definition for a word or phrase in the light of its particular contextual setting, follow the organization of a passage, and identify antecedents and

references in it, select the main idea of a passage, draw inferences from a passage, and determine a writer's purpose and point of view (Sari and Wati, 2017).

4.2.4 The students' opinions about the inquiry-based learning program

By the end of the program, students were asked to reflect on it and what they liked the most by writing their opinions freely. Following are some examples of the students' views:

A1: I liked learning how to select safe resources and be safe online. My mum sees how responsible I am now.

T: I enjoyed learning through Nearpod during online sessions. I also liked working with my friends in the breakout rooms and think together.

H: I now know how to search, and I started to want to find information by myself.

Y: Sessions are no more boring because we go a lot to the computer lab.

A2: I learned not to talk to strangers online even if we play online together. It is better to play online with my friends at school.

L: I can write strong questions that will help me find a lot of information like asking using what if, why, and how questions.

Z: My mum liked that I helped her to check if the online website she wants to buy a bag from is true or not. I looked for brand Logos and people's reviews before paying money.

M: I read a lot of things, and this made me a better reader and writer. My elder brother liked the long stories I wrote.

Not only students who expressed their views, but parents also liked the program, and they noticed a significant improvement in students' digital literacy. For instance, Ms. R said, 'I have noticed that my son's ICT skills and digital literacy have improved. He started to use technology beneficially and to make use of it to learn and gain knowledge.' Besides, Ms. D expressed her gratefulness, saying, 'My daughter became responsible towards her own learning, and she started to show a positive attitude while doing her assignments.' Eventually, Ms. G clarified, 'I observed that my son could write better and make sense of what he reads, and he likes to have Zoom

meetings with his friends out of school hours to discuss assignments and think together.’

4.3 Conclusions

The previously mentioned illustrated students’ satisfaction from the study program and its activities. They could feel its impact on their 21st century EFL literacy regarding how they deal with online and offline information and how they communicate their ideas using various modes and modalities. Additionally, after conducting the quantitative and qualitative analyses of the pre/posttest results, the researcher concluded that the program was highly influential in enhancing 4th primary stage students’ 21st century EFL literacy.

At the beginning of the program, students faced a lot of challenges. They were unable to deal with information either online or offline, and they were not aware of what should be done while dealing with online resources to keep themselves safe and get trustworthy information. Moreover, they had no idea about the concept of references and why they should write them and refer to people who they took ideas and statements from in their work. Additionally, they could not differentiate between research and non-research questions, and they were not acquainted with what is required to do a good research paper. The researcher also made sure to use guiding questions during conducting inquiry activities, which helped enhance their learning and 21st century EFL literacy as well.

Although students did not become proficient at dealing with different resources yet due to their young age and their first exposure to such an intensive program, they were highly developed. This was clear through the students’ and parents’ reflections throughout the program. Besides, comparing the pre and post-test results showed that the students’ 21st century EFL literacy had significantly developed.

Chapter Five

Summary, Conclusions, and Recommendations

Chapter Five

Summary, Conclusions, and Recommendations

This chapter gives a summary of the current study. It provides a description of the study problem, aim, research questions, instruments, and participants. It also discusses the possible pedagogical implications of the study and the challenges encountered by the researcher. Moreover, it comprises general conclusions, recommendations, and suggestions for further research.

5.1 Summary

The problem of this study is that there is a noticeable weakness in 4th primary stage students' abilities to comprehend various reading texts, to deal critically with awareness with what they generally view (reading text/ videos/ posts) either offline or online. Besides, they could not communicate their understandings clearly in various contexts using a variety of media and modalities.

The main aim of this study was to investigate the impact of using inquiry-based learning in enhancing 4th primary stage students' 21st century EFL literacy. The following questions guided the study:

1. What are the required 21st century EFL literacy components? The components of 21st century EFL literacy were determined according to the review of the literature and the previous studies. This helped prepare the list as well as the study's instruments.
2. What are the inquiry-based learning program components? To answer this question, the researcher used several sources to find suitable activities and strategies that can be used to enhance 4th primary stage students' 21st century EFL literacy. The researcher modified the activities according to the students' levels and interests and the program's objectives.
3. What is the effect of the suggested program based on inquiry-based learning in enhancing 4th primary stage students' 21st century EFL literacy components based on grade-level Common Core State Standards (CCSS)? An inquiry-based learning program was administered to a group of EFL 4th primary stage students to answer this question. The posttest was administered by the end of the application. The pretest and the post-test results were compared to see to what extent the students' 21st century EFL literacy components have been developed. This was followed by a qualitative analysis of the students' performance.

To tackle the study problem and achieve the aim of the study, the following instruments were designed by the researcher and used throughout the study:

1. A pre/post 21st century EFL literacy test
2. A 21st century EFL literacy rubric

Thirty students were randomly selected at Manaret Heliopolis International School in Nasr City, Cairo, Egypt. All students were enrolled at the 4th primary stage, and their age ranges were between 9 and 10 years old. Before starting the experiment, the 21st century EFL literacy test was applied to the study group. The proposed program was then administered to them. Finally, the 21st century EFL literacy test was reapplied to the same group as a posttest.

5.2 Pedagogical Implications

Following are myriad reasons why this program was effective in enhancing 4th primary stage students' 21st century EFL literacy components:

- Integrating information media literacy and multimodality into the inquiry-based learning program significantly impacted 4th primary stage students' 21st century EFL literacy enhancement. Moreover, being exposed to many reading texts and online resources enhanced the students' ability to deal with different texts and develop high cognitive thinking skills that enable them to interpret and analyze what they read and comprehend them deeply. This agrees with Friedman's view (2005; as cited in Corio, 2017) that "having the skills, strategies, and dispositional mindsets to engage with, comprehend, and use information will play a vital role in our students' success in a digital information age. Without the ability to understand and use information technologies, our students will be unable to communicate effectively nowadays in life and work in a global information economy."
- Collaborative inquiry learning activities and implementing visible thinking routines and questioning strategies helped promote the learning process and aid in achieving profound outcomes. Students were really willing to participate, ask questions, and share ideas as they construct meaning collaboratively. Similarly, Wale and Bishaw (2020) conducted a study on 20 EFL undergraduate students to examine the effect of using inquiry-based learning on enhancing students' critical thinking. The study reveals that inquiry-based instruction improved students' critical thinking because it enhances their interpretation, analysis, evaluation, inference, explanation, and self-regulation, which are the essential components of critical thinking.

- Students reflected their understandings using different thinking routines in order to visualize their thinking and look collaboratively for solutions to the questions they come up with and create opportunities to make sense, analyze, synthesize and evaluate what they view either reading texts, videos, images, websites, etc. online and offline. This is consistent with the results of Ali's research (2018), which reveals that visible thinking develops students' English language fluency in general and writing fluency in particular.
- Students had fun while working in small groups. They liked to find information by themselves, and the sense of victory was reflected in their eyes when they find answers to their questions. Moreover, giving priority to students' concerns and questions made them feel a sense of belonging and appreciate that their voices were always heard, and this enhanced their responsibility towards their learning. Furthermore, the non-judgmental and safe learning environment encouraged them to freely express their ideas without feeling afraid of being criticized or making mistakes.
- The researcher made sure to make students acquainted with the objectives of each session by writing today's classroom agenda on the whiteboard daily or even in the chat box on Zoom while giving sessions online. This helped students to expect the required learning outcomes and to work actively to achieve the predetermined goals. It also enabled them to have a clear vision and purpose for their learning.
- Introducing multimodality into the study program developed students' language performance, improved their motivation and engagement in learning, and enhanced their critical awareness capacity. This agrees with Dzekoe (2017) findings that assert the effectiveness of using computer-based multimodal activities in developing English academic writing. The results suggest this method is beneficial in developing students' written language for communicating ideas and opinions.
- The researcher provided students with ongoing assignments, assessments, and feedback to be aware of their points of weaknesses and strengths. Besides, allowing students to participate in peer assessments enabled them to learn better and appreciate the collaborative learning environment.

5.3 Limitations

The researcher faced some challenges through the experimentation. She tried to find alternatives and provide solutions for them:

- At the beginning of the program, the students had difficulty comprehending what they read or viewed online or offline, which made them unable to reflect and communicate their understandings. Additionally, they lack the necessary ICT skills and knowledge to deal with online resources effectively. For example, they could not select safe and trustworthy resources; they had difficulty figuring out what is meant by references and why they are essential to be added to their work or project, mainly if it was research. Moreover, they did not know how to paraphrase and evaluate information.
- Students first exposure to the study program content and intensively working on enhancing their information media literacy and understanding the impact of using modes and semiotic language and how to use them to communicate their understandings of what they read or viewed was a great challenge. Thus, the researcher maintained a safe and relaxing learning environment in which the students felt free to express their thoughts openly. Moreover, they got engaged in myriad inquiry activities that required them to share their understandings and reflect on others' work so that they could learn and construct meaning collaboratively.
- Students had no idea about good research paper criteria or the steps they should follow to search effectively and get trusted information. The researcher introduced a research paper outline to help students organize their thinking and guide them through questions to figure out how they could find answers to all the questions that come to their minds and how this could help them elevate their thinking and go beyond the assigned task.
- Because of the COVID-19 pandemic, the educational system shifted to blended learning, two days online and three days offline. Indeed, the blended learning experience was not enjoyable to students, at first, because of their young age; they preferred offline educational systems. Thus, the researcher worked on using the Nearpod platform in online sessions because of its interactive features that students liked, such as providing reflections using drawing, gamification features, and virtual field trips. Moreover, Zoom breakout rooms were used to enable students to have ownership of their own learning and provide them with sufficient time to discuss and share ideas in small groups.

5.4 Results of the Study

The study came to the following results:

- 1- There is a statistically significant difference at the 0.01 level between the mean scores of the study group on the pre and post-applications of the 21st century EFL literacy as sub-components in favor of the post-test scores.

- 2- There is a statistically significant difference at the 0.01 level between the mean scores of the study group on the pre and post-applications of the 21st century EFL literacy as a total score in favor of the post-test scores.

5.5 Conclusions

Based on the study results, it can be concluded that:

- Using inquiry-based learning was highly influential in enhancing 4th primary stage students' 21st century EFL literacy. This was obvious after administering the post 21st century EFL literacy test. It was also apparent through the students' gradual development throughout the experimentation.
- Using interactive online features in different applications like Nearpod and Zoom and using enjoyable inquiry-based learning collaborative activities ensure that all students actively participate in the learning process as they feel that their learning is valuable and authentic.
- Students' Prior knowledge was the start point as they go from what they know to dig deeply through various inquiry activities to discover what they do not know and construct meaning collaboratively.
- Using various visible thinking routines through inquiry activities enabled students to enhance their 21st century EFL literacy through figuring out collaboratively how to summarize, criticize, evaluate, select and deal with effectively with information online and offline.
- Integrating ICT skills into students' collaborative reading and writing inquiry activities online and offline motivated students and increased their willingness to participate in the learning process. Additionally, interpreting and evaluating different online and offline resources enabled them to raise their awareness of what is meant by information and media literacy and why it is crucial nowadays to be an information and media literate student, as shown in students' reflections in the figure below:

Figure 22. Sample of students' reflections of what is meant by information and media literacy.



5.6 Recommendations

Based on the study results and conclusions, the researcher recommends the following:

- Encouraging and maintaining a collaborative learning environment allow students to enjoy EFL learning process as they work together to make sense of what they read or view.
- Teachers should use varied platforms that include different interactive features to encourage students, grab their attention to dig deeper and make sense of more complicated resources collaboratively.

- More time should be provided to allow students to practice, reflect and process knowledge and apply what they have learned in various authentic contexts.
- Teachers should make sure that students understand the purpose of their learning. They have to be acquainted with the end of mind to have ownership of their own learning and appreciate their participation while putting pieces together to make sense of what they read or view.
- Inquiry-based learning enhances the acquisition of 21st century EFL literacy components, including information literacy, media literacy and multimodality.
- Online contexts motivate 4th primary stage students to deal effectively with online/offline resources and use different modes and modalities to present their understandings.
- Teachers should help students develop their own learning strategies while working collaboratively and writing down reflections on how they learn.
- Autonomous and lifelong learning can be enhanced through IBL as they discover the best learning ways that they developed while working independently and collaboratively in small groups.
- ICT teachers should participate actively and get acquainted with the required skills needed to help their students.
- Aligning the current study with Egypt's 2030 vision, new 2.0 system of activities and PAT.

5.7 Suggestions for Further Research

Researchers may consider the following suggestions to investigate the adequacy of utilizing inquiry-based learning to enhance 21st century EFL literacy for further research:

- Exploring the effect of using inquiry-based learning on diverse learning outcomes.
- Selecting different learners from different educational levels and applying the current study on them.
- Increasing teachers' awareness of the importance of helping students be information and media literate and deal with awareness with different online and offline resources.
- Enhancing the students' 21st century EFL literacy using various teaching strategies.
- Examining the effect of integrating multimodal instruction to develop EFL students' language performance.

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Appendices

Appendix (A)

Pre-Post 21st Century
EFL Literacy Test for 4th
Primary Stage Students

Pre/Post 21st Century EFL Literacy Test

Test Instructions:

- 5- Tests are conducted in the MHIS School ICT Lab.
- 6- Use this link and code to join the test
Pre-test link & code: goformative.com/join **ZYDB6R**
Posttest link & code: goformative.com/join **4Y4SJ4**
- 7- Read questions carefully and answer in the boxes below.
- 8- If you face any technical problems, ask for your ICT teacher's help.
- 9- Test duration: 90 minutes

You are asked to do a research paper out of 200 words on how social media affects people's life. Mention how our world changed after social media existence.

1 Question no.(1): Write down four or five words (keywords) that you will use while searching about this topic.

2

2 Question no.(2): What sources you will use to get reliable and trustworthy information about your research topic. (You can choose more than one answer.)

1

- Online and offline books
- Any websites available online
- Facebook, Twiter and Instagram (social media websites in general)
- Educational websites for kids
- Videos on YouTube or other websites
- Wikipedia

3 Question no.(3): Which website is safer for kids while searching online? (You can choose more than one answer)

1

- Kiddle
- Google
- YouTube
- YouTube Kids Application
- Google scholar

4 Question no.(4): Which two links will you choose? Open each one, read its content, decide what to choose and write why you chose it.

2

- A- <https://www.bbc.co.uk/newsround/48184022>
- B- <https://www.simplilearn.com/real-impact-social-media-article>
- C- https://en.wikipedia.org/wiki/Social_media
- D- <https://summitpsnews.org/2020/03/24/social-media-has-changed-the-lives-of-modern-society/>
- E- <https://www.youtube.com/watch?v=kiW09TFYE74>

5 Question no.(5): Write down four questions you will ask while doing your research about this topic.

4

6 Question no.(6): Write your understandings and your opinion about social media and how it affects our daily life from the links you chose.

4

7 Question no.(7): Write the reference of the following website. <https://summitpsnews.org/2020/03/24/social-media-has-changed-the-lives-of-modern-society/>

2

8 Question no. (8): 1-Check the following checklist to know what you are asked to do.
https://drive.google.com/file/d/1HHDdmDoM_IATpgGMrD6-kUzwWFWavget/view?usp=sharing
2- Do a research paper out of 200 words on how social media affects people's life. Mention how our world changed after social media existence.
3- Press on show your work and start doing your research paper.

8

Show Your Work

Appendix (B)

21st Century EFL Literacy Specifications

21st century EFL literacy specifications

Items	Performance Indicators	Required responses
1	Ask research questions.	Short answer
2	Use keywords to narrow down a research topic.	Short answer
3		Short answer
4		Short Paragraph
5	Justify the choice of the selected online/offline resources.	Short Paragraph
6		
7	Critically analyze and synthesize information read from various online/ offline resources connecting their understandings to their prior knowledge.	Short Paragraph
8	Select trustworthy and reliable resources online/offline.	Multiple choice
	Select safe and child-friendly resources online/offline.	Multiple choice
8	Communicate ideas and information effectively using various media and modalities, expressing their understandings of the information presented online/offline in a written format.	Research paper/presentation

Appendix (C)

Rubric for Assessing 4th Primary
Stage students' 21st century EFL
Literacy

Rubric for Assessing 4th Primary Stage Students 21st Century EFL Literacy

Item	Beyond level (4)	On level (3)	Approaching level (2)	Below level (1)
Information Literacy	Can independently identify the difference between research questions and non-research questions and can demonstrate asking relevant research questions to the prompt provided.	Can satisfactorily identify the difference between research questions and non-research questions and demonstrate asking relevant research questions to the prompt provided with little guidance.	With the teacher's continuous help and guiding questions, can slightly identify the difference between research questions and non-research questions and can limitedly demonstrate asking relevant research questions to the prompt provided.	After the teacher's continuous help and guiding questions, cannot identify the difference between research questions and non-research questions and cannot demonstrate asking relevant research questions to the prompt provided.
	Can independently use keywords to narrow down a research topic.	Can satisfactorily use keywords to narrow down a research topic with little guidance provided.	With the teacher's continuous help and guiding questions, can somehow use keywords to narrow down a research topic.	After the teacher's continuous help and guiding questions, cannot use keywords to narrow a research topic.

	Can independently write references correctly mentioning the author's name, article, book, video, etc. title and attach the website link.	Can satisfactorily write references correctly mentioning the author's name, article, book, video, etc. title and attach the website link with little guidance.	With the teacher's continuous help and guiding questions, can somehow write references correctly, mentioning the author's name, article, book, video, etc. title and attach the website link.	After the teacher's continuous help and guiding questions, cannot write references correctly mentioning the author's name, article, book, video, etc. title and attach the website link.
Media Literacy	Can independently justify the choice of the selected online/offline resources.	With little guidance provided, can satisfactorily justify the choice of the selected online/offline resources.	With the teacher's continuous help and guiding questions, can slightly justify the selected online/offline resources.	After the teacher's continuous help and guiding questions, cannot justify the choice of the selected online/offline resources.
	Without any guidance provided, can critically analyze and synthesize information read from	With little guidance provided, can satisfactorily analyze and synthesize	With the teacher's continuous help and guiding questions, can slightly analyze and	After the teacher's continuous help and guiding

	various online and offline resources connecting their understandings to their prior knowledge.	information read from various online and offline resources connecting their understandings to their prior knowledge.	synthesize information read from various online and offline resources connecting their understandings to their prior knowledge.	questions , cannot analyze and synthesize information read from various online and offline resources connecting their understandings to their prior knowledge.
	Can independently select trustworthy and reliable resources online/ offline.	With little guidance provided , can satisfactorily select trustworthy and reliable resources online/ offline.	With the teacher’s continuous help and guiding questions , can somehow select trustworthy and reliable resources online/ offline.	After the teacher’s continuous help and guiding questions , cannot select trustworthy and reliable resources online/ offline.
	Can independently select safe and child-friendly resources online/ offline.	With little guidance provided , can satisfactorily select safe and child-friendly resources online/	With the teacher’s continuous help and guiding questions , can slightly select safe and child-friendly resources	After the teacher’s continuous help and guiding questions , cannot

		offline.	online/ offline.	select safe and child-friendly resources online/ offline.
Multimodality	Can independently communicate information and ideas effectively using various media and modalities, expressing their understandings of the information presented online/offline in a written format.	With little guidance provided, can satisfactorily communicate information and ideas effectively using various media and modalities, expressing their understandings of the information presented online/offline in a written format.	With the teacher’s continuous help and guiding questions, can somehow communicate information and ideas effectively using various media and modalities, expressing their understandings of the information presented online/offline in a written format.	After the teacher’s continuous help and guiding questions, can limitedly communicate information and ideas effectively using various media and modalities, expressing their understandings of the information presented online/offline in a written format.

Appendix (D)

Research Paper Checklist

Research Paper Checklist

Items to check	Yes	No
1-You wrote in your words about what you understood about social media and its effect on people’s life.		
2-Your paper is organized using titles and headings.		
3-You included pictures, graphs, videos, audio, and captions in your paper that are related to your research topic.		
4-You wrote 200 words or more.		
5-You wrote the references (websites, books, and videos) you used at the end of your paper.		

Appendix (E)

An Inquiry-based Learning Program for
Enhancing 4th Primary Stage Students'
21st Century EFL Literacy

An Inquiry-based Learning Program for Enhancing 4th Primary Stage Students' 21st Century EFL Literacy

Aim of the program:

In this study, inquiry-based learning aims to develop 4th primary stage students' 21st century EFL literacy through focusing on their development at information literacy, media literacy, and multimodality.

Program Overview:

1. Inquiry-based learning aims to raise students' awareness of digital media and resources they have access to by questioning and discovering them.
2. Moreover, inquiry-based learning aims to develop students' reflective thinking by analyzing, criticizing, and synthesizing different resources they read online/offline.
3. Furthermore, inquiry-based learning aims at engaging students in the learning process by enabling them to ask questions, create hypotheses, and test their understandings through collaborative work and continuous reflections.
4. Additionally, inquiry-based learning aims to enhance students' reading comprehension and writing fluency by being exposed to different resources and ideas that will elevate their thinking and enrich students' ideas, so they can express themselves using various modes.

Objectives of the program:

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

- 1- Identify the difference between research questions and non-research questions and demonstrate by asking relevant research questions to the prompt provided.
- 2- Use keywords to narrow down a research topic.
- 3- Write references correctly mentioning the author's name, article, book, video, etc. title and attach the website.
- 4- Justify the choice of the selected online/offline resources.
- 5- Critically analyze and synthesize information read from various online and offline resources connecting their understandings to their prior knowledge.

- 6- Select trustworthy and reliable resources online/ offline.
- 7- Select safe and child-friendly resources online/ offline.
- 8- Communicate information and ideas effectively using various media and modalities, expressing their understandings of the information presented online/offline in a written format.

Content of the program:

Throughout the program, the students were given several sessions to enhance their 21st century EFL literacy. It consisted of 11 sessions. The first session of the program was an introductory session. The researcher tried to present the whole program to students to give them a chance to consider the importance of these literacy components on enhancing their abilities to learn better and be digitally literate citizens in the current era.

Concerning the rest of the sessions, different activities were introduced to encourage students to inquire into different concepts to construct meaning, reflect on their learning, and develop 21st-century EFL literacy components required by critically viewing different online/offline resources and questioning them collaboratively.

In this unit, students will inquiry into:

- 1-Mass media elements (message, channel, receiver, and source)
- 2-Factors that determine media selection
- 3-The influence of advertising, social media, and mass media on people's life

Time, place, and number of sessions:

This program will take place in the second trimester of the academic year 2020/2021 at Manaret Heliopolis International School. This unit will last for six weeks, an equivalent of 15 hours approximately. The program will be hybrid; therefore, some sessions will be offline, and the other ones will be online.

Week 1:

Inquire into:

- Different online resources using different thinking routines orally and written.
- Research questions and non-research questions.
- Narrowing down research topic using keywords to use while searching.

Week 2:

Inquire into:

- The selection of different online/offline media and resources to get trustworthy and reliable information.
- Safe and child-friendly online/offline resources.
- Paraphrasing online/offline resources through connecting between what they have read online/offline and their prior knowledge.

Week 3:

Inquire into:

- The influence of social media, mass media, and advertising on people's life through accessing different resources online/offline.
- How using different modes will have a more profound influence on readers/audience.

Week 4:

Inquire into:

- The information provided from varied resources through analyzing, criticizing, and synthesizing information available with their prior knowledge using different thinking reflection routines.

Week 5:

Inquire into:

- Designing research paper outline through brainstorming ideas in collaborative group work.
- Why and how to write references correctly.

Week 6:

Inquire into:

- How to use different modes effectively to influence others with our viewpoints in presentations and written text.

Learning and teaching strategies:

Inquiry-based learning was the main strategy that was used to enhance 4th primary stage students' 21st century EFL literacy. Students were asked to form questions, work collaboratively in small and big groups, and reflect on their learning experiences using different visible thinking routines, like see, think and wonder, zoom-in, 321 bridge, connect, extend and challenge, etc. Thus, they were engaged in problem-solving and collaborative activities. They were divided into several groups to finish specific tasks, and they cooperated to achieve predetermined goals.

Guided inquiry-based learning was used to help students make sense of what they read, watch and hear in different online/offline resources and construct meaning through continuous reflections and differentiated designed products done by students to express their understandings of the materials they are exposed to.

Assessment:

The researcher used a rubric to assess the students' progress throughout the program. The rubric consisted of three 21st century EFL literacy components: information literacy, media literacy, and multimodality.

To assess the students' progress, the researcher designed a pre/posttest. Students conducted the test on the first and last session in the program. The researcher then compared the pre and post 21st century EFL literacy test results to measure the students' progress throughout the program.

Introductory Session (Offline)

Session Duration: 40 minutes

During the introductory session, the teacher will give a brief presentation about the program by helping them be familiar with the program content and the objectives of the whole unit so they can make sense of what they will learn and what they will inquire into.

-This program aims to improve students' 21st-century EFL literacy components, especially the ones related to information media literacy and multimodality.

This program will help students use their prior knowledge, analyze and synthesize new knowledge to construct meaning through inquiry, and ask questions. They will know the importance of information and media literacy and how this will enable them to boost their ability to read critically and write using different modes to communicate information and ideas effectively using a variety of media and modalities, expressing their understandings of the information presented online/offline in a written format. They will also be able to use excessive information and media with awareness, understanding how to select trustworthy resources, and use child-friendly browsers, so they can avoid cyber problems like Internet bullying and watching inappropriate content. Besides, they have to be up-to-date and digitally literate to succeed in the current era and having leading roles in the future.

- Some inquiry activities will be done online, and some others will be offline.

- The online sessions will take place on Zoom, and interactive PowerPoint presentations will be done using Nearpod to make sure that all students contribute during all sessions. They will be actively inquiring into the new concepts they will learn.

-Also, to make sure that everyone shared his/her voice and that they collaboratively work to construct meaning, Zoom breakout rooms will be used for group work and small group discussions online.

- Through inquiry-based learning, students will learn how to form research questions and build meaning collaboratively through visualizing their thinking using different thinking routines like, see, think and wonder, zoom-in, 3,2,1 bridge,

think, puzzle and explore, etc. Moreover, they will be motivated to think critically and justify their answers using research skills (information literacy) to support their answers.

- Within inquiry-based learning, students can express their emotions, refer to each other's messages, communicate their ideas, evaluate online content they read and watch and reflect openly.

- The teacher will ask guiding questions to facilitate learning and class discussions. Also, she will direct the discourse towards achieving the objectives when necessary and provide the students with some activities to initiate discussions.

Session Two (Offline)

Session Duration: 80 minutes

Objectives:

- Predict the unit content through different inquiry activities.
- Reflect collaboratively in small groups on different tools of communication pictures.
- Present their understandings of these pictures using the see, think, and wonder thinking routine.
- Distinguish between research and non-research questions.
- Rewrite non-research questions and turn them into strong research questions using how, why, what if, etc.

Resources & Materials:

- Whiteboard
- Charts
- Markers
- Pictures of different tools of communication and social media icons

Overview:

In this session, students will inquire into how people communicated in the past and how they communicate now. They will use a see, think, and wonder thinking routine to introduce their ideas and ask research questions by categorizing and differentiating between research and non-research questions. Moreover, students will expect what the unit is about through discussions and activities conducted throughout the whole session.

Warm-up:

Students will look at different pictures of tools used to let people communicate, like telephones, mobiles, Facebook, Instagram, What's app, letters, emails, Zoom, Skype, Netflix, etc. Then, they will write down a sentence trying to figure out what the unit will be about, using this sentence prompt:

I think this unit will be aboutbecause.....

After that, each student will share his/her expectations with the whole class.

Activity (1):

Students will collaboratively work in small groups. They will use the see, think, and wonder thinking routine to write down their reflections about the pictures they have seen. In the see section, students will write down what they saw. In the think section, they will write what they think about these pictures by writing their ideas, experiences, and their expectations of the future of how people will communicate and express themselves in the future. In the wonder section, they will write all questions that come to their minds when they see these pictures through their discussions. Then, each group will present their understandings.

Activity (2):

Students will be asked to look at each group's questions in the wonder section, and they will be asked to categorize these questions into weak and strong justifying their answers.

Then, the teacher will ask them to think about how they can change the weak questions into stronger ones using how, why, what if, etc.

The teacher will guide students through questions to figure out the difference between research questions and non-research questions.

Exit ticket:

Each student will write down a reflection about one thing he/she learned today, one thing he/she found interesting, and one question he/she still has.

Session Three (Online)

Session Duration: 120 minutes

Objectives:

- Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) to build on others' ideas and express their own.
- Investigate how to find answers to questions through online and offline resources using think, puzzle, and explore thinking routine.
- The contrast between safe and trustworthy resources and fake and unreliable resources.
- Break down research questions into short specified phrases and sentences.

Resources & Materials:

- Zoom application
- Nearpod interactive presentation
- YouTube videos
<https://www.youtube.com/watch?v=u4ipjMYMYik> 3 Internet Tips for Kids
<https://www.youtube.com/watch?v=HpwqzyD-3dY> Reality Check
- Computer, tablets, and mobiles

Overview:

In this session, students will inquire into finding answers for their questions using think, puzzle, and explore thinking routine. They will discuss how they can find answers to their questions online and offline. Also, they will reflect on how they can be safe online and at the same time get reliable answers to their questions through raising their awareness of how they can select different resources.

Activity (1):

The teacher will gather all students' questions in session number 2 into one Word document. Then, she will ask them to work collaboratively in small groups through Zoom breakout rooms using think, puzzle, and explore thinking routine. In the think section, students will write down what they think of and their ideas regarding the questions they have asked in session no. 2. In the puzzle section, students will ask themselves questions they still have about the topic. Finally, they

will list all tools and materials that can help them find answers to these questions in the explore section.

Students will present their findings with other groups online in the Zoom application.

Activity (2):

Students will reflect on the tools and materials they have chosen regards which of them they can depend on and trust and which they should not use because of being unreliable and unsafe for kids.

Students will watch two YouTube videos, and they will take notes while watching about how they can access information online and at the same time keep themselves safe from improper websites.

<https://www.youtube.com/watch?v=u4ipjMYMYik> 3 Internet Tips for Kids

<https://www.youtube.com/watch?v=HpwqzyD-3dY> Reality Check

Answers will be shared with the whole class after watching.

Activity (3):

Students will be asked to rewrite the questions trying to narrow them down into phrases and sentences that they can use to search for the information they want to know more about social media and different tools of communication.

Using different guiding questions and demonstration of different examples, students will determine which phrases and/or sentences are the most suitable and specified ones that will help them get the information they look for without getting lost in lots of useless resources.

Formative Assessment:

Students will take a Time to Climb quiz (an interactive MCQ quiz on Nearpod) to figure out reliable and safe online resources from others that lack reliability and safety.

Assignment:

Students will be asked to search for questions they have asked in session two by using the techniques they have used to narrow down a research topic and get reliable information. Then, they will present the information they got in a PowerPoint Presentation.

Session Four (Offline)

Session Duration: 80 minutes

Objectives:

- Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) to build on others' ideas and express their own.
- Explain how online resources they used to do their PPTs are selected and presented.
- Illustrate the consequences if all people copy and paste information that exists online/offline.
- Paraphrase the chosen online information using their own words.

Resources & Materials:

- Whiteboard
- Markers
- Charts
- Computer, tablets, and/or mobiles
- YouTube video:
<https://www.youtube.com/watch?v=H4inIGNEYZw>
https://www.youtube.com/watch?v=QATk_yHzgY4

Overview:

In this session, students will inquire into paraphrasing resources they have selected and predict what would happen if all people were copying each other's words and work.

Activity (1):

In small groups, students will take a look at each other's presentations. Then, they will reflect on how they have selected their online resources and how they presented them.

What resources did you choose?

How did you determine that these resources are reliable?

What online websites and browsers did you use and why?

Did you read and write down your understandings, or you copied and pasted the information you selected?

What do you think would happen if all people were copying and pasting information from different resources online/offline?

How can you present your understandings of the information you selected online?

Each group will share their answers to these questions with the whole class.

Activity (2):

After that, the teacher will guide students through guiding questions to think of what happened during the first exitance of the Corona Virus pandemic and how people dealt with this situation online on social media websites like Facebook.

Students will watch a YouTube video talking about fake news spread on social media websites and how people share this news without even thinking.

<https://www.youtube.com/watch?v=H4inIGNEYZw> Check first and then share

https://www.youtube.com/watch?v=QATk_yHzgY4 We are all broadcasters

After that, the teacher will guide students through guiding questions to think of what happened during the first exitance of the Corona Virus pandemic and how people dealt with this situation online on social media websites like Facebook.

While watching, students will take notes of the information presented in the video and the tips they should follow in order not to spread fake news.

Exit Ticket:

Each student will write down a reflection about one thing he/she learned today, one thing he/she found interesting, and one question he/she still has.

Assignment:

Recheck the information you got online in your PPT and paraphrase it using your own words.

Session Five (Online)

Session Duration: 120 minutes

Objectives:

- Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) to build on others' ideas and express their own.
- Demonstrate the influence of adverts' hidden messages and different modes.
- Analyze the impact of different modes used in adverts on people's decisions.
- Identify the reasons behind creating adverts.

Resources & Materials:

- Zoom application
- Nearpod interactive presentation
- Computer, tablets, and/or mobiles
- YouTube videos
 - https://www.youtube.com/watch?v=jpJPI_T2MIw&list=PLI-aJwLFZfwd6ClZHG15W7r8cjl6BfrAq Honey Nut Cheerios Commercial
 - <https://www.youtube.com/watch?v=MqLUcyLgxi8&list=PLI-aJwLFZfwd6ClZHG15W7r8cjl6BfrAq&index=2> Frosted Flakes We are Tigers Commercial: Tony the Tiger
 - <https://www.youtube.com/watch?v=82yZVB7IDIE> Got Milk? Commercial
- Reading online texts (The teacher will simplify text to suit students' academic level)
 - <https://www.commonlit.org/texts/the-power-of-advertising> The Power of Advertising
- Pictures of different adverts

Overview:

In this session, students will inquire into how adverts influence people's decisions and the hidden messages presented. Also, they will analyze how the use of different modes, like pictures, colors, catchy phrases, sound, movement, etc., have a more profound impact on the audience.

Warm-Up:

The teacher will begin by asking students what an advertisement is and where they sometimes see advertisements. Then, the teacher will ask students to describe different times that advertisements have caused them to react a certain way, buy something, go somewhere, try a new activity, or feel angry or excited.

Activity (1):

The teacher will ask students to list in Nearpod Collaborate Board what makes these adverts exciting and attractive to them. They will share their answers in the collaborate board online, and then they will reflect on each other's answers through a whole class discussion.

The teacher will ask students to read an online reading text, "The Power of Advertising," collaboratively in the Zoom breakout rooms. Then, they will write down the main idea of the text and three supporting details they got from the text filling in the main idea and key details graphic organizer.

Activity (2):

Students will watch videos of different adverts targeting kids. Small groups in Zoom breakout rooms will use the see, think, and wonder thinking routine to visualize their ideas and thinking. In the see section, students will list what they have seen. In the think section, students will write down all things they liked in the adverts they have seen and why they may decide to buy this product or not. In the wonder section, students will write any question they have about these adverts that pop up in their minds.

Each group will sum up presenting their findings to other students.

Activity (3):

Students will look at pictures of different adverts and the videos they have seen inactivity (2) and determine what made these adverts enjoyable. On the collaborate board on Nearpod, they will work collaboratively to write down a reflection answering these questions:

List the adverts you have seen from the best to the worst and mention why.

Did the use of cartoons, movement, songs, music, colors, words, etc., affect your choice of the advert you liked? Why?

If you were an advert creator, what modes will you use to create your advert?

Exit Ticket:

Each student will write down a reflection about one thing he/she learned today, one thing he/she found interesting, and one question he/she still has.

Session Six (Offline)

Session Duration: 80 minutes

Objectives:

- Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) to build on others' ideas and express their own.
- Investigate ads tricks used to influence the target audience.
- Criticize adverts' hidden messages.
- Search how these hidden messages influence our society.
- Develop ways to be digitally literate and be aware of the ads they see, watch and hear.

Resources & Materials:

- Whiteboard
- Charts
- Markers
- Computer
- Speakers
- Online lesson:

<https://www.learningforjustice.org/classroomresources/lessons/advertisements-and-you>

- YouTube videos
<https://www.youtube.com/watch?v=5ahMQwxN9J> Junk food ads and kids
<https://www.youtube.com/watch?v=zQptrlOFMDw> Advertisement lesson for kids

Overview:

In this session, students will inquire into how to become digitally literate citizens through learning the ins and outs of media literacy, identifying online ads, and responding to them sensibly and critically. Besides, they will analyze different ads with a critical eye. They will think about the purpose behind the ads and how they affect young consumers by considering the pros and cons of each of these ads and developing some strategies they can use to raise their awareness of everything they hear, watch, and read.

Activity (1):

Students will do a survey at school asking other kids and teachers about the last advert they have seen, what product it was talking about, what was interesting about it, if they will buy the product or not, and if they really need it or they were just tempted by offers or the advert's message.

Students will work collaboratively in small groups to analyze the answers they collected from their colleagues and their teachers. Then, they will give a short presentation.

Activity (2):

Students will be asked to work collaboratively in small groups and prepare a short presentation answering the following questions:

Do ads include tricky messages? How?

Can ads deceive people or make them do things they are unwilling to do or harmful to do? How?

Can ads have an impact on the way we think? How?

How can people act with awareness while being exposed to different ads on different social media websites?

Before presenting their findings, the teacher will ask them to watch a YouTube video, and after this, they will return to their collaborative reflections to add more information.

<https://www.youtube.com/watch?v=5ahMQwxN9J> Junk food ads and kids

<https://www.youtube.com/watch?v=zQptrlOFMDw> Advertisement lesson for kids

Activity (3):

Students will present their presentations in small groups, and other groups will give them feedback on their presentations, and they will write down any questions that pop up in their minds.

Exit Ticket:

Each student will write down a reflection about one thing he/she learned today, one thing he/she found interesting, and one question he/she still has.

Formative Assessment:

Students will be asked to do a poster either digitally or on a chart to be hanged along the school to raise other kids' and parents' awareness of how to deal with adverts they see, watch and hear on different media and social media websites as well.

Session Eight (Offline)

Session Duration: 80 minutes

Objectives:

- Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) to build on others' ideas and express their own.
- Criticize social media misleading messages.
- Develop ways to raise their awareness of what they hear, watch and read to be digitally literate.
- Investigate the advantages and disadvantages of social media.

Resources & Materials:

- Whiteboard
- Charts
- Markers
- Computer
- YouTube videos
- Facebook Survey:
[https://www.mylemarks.com/store/p463/Facebook_\(Social_Media_Sheet\).html](https://www.mylemarks.com/store/p463/Facebook_(Social_Media_Sheet).html)

Overview:

In this session, students will inquire into how to criticize social media messages and be aware of what they watch and read on these websites. Besides, they will inquire into how to react to different information presented from various online resources, check if they are true or not, and be safe while using different social media websites.

Activity (1):

Students will be divided into pairs, and they interview each other about social media websites like Facebook and how they use them in their daily life.

Then, in the whole class discussion, each one will present what he/she found interesting in his/her partner's answers.

Activity (2):

Students will think collaboratively in small groups of the following questions:
Do you think all the information presented on social media websites is accurate and proper? Discuss.

How can you make sure that these messages or information are true, not fake?

Do you believe in everything people share on Facebook? Why yes/no?

What do you think are the pros and cons of social media?

Do you think fake news is spread through social media websites only, or you may find them in newspapers, magazines, online websites, and digital or paper-based books? Explain your answer.

What do you think we should do to be safe and not spread fake news on social media?

Students will present their findings in small groups at the end of the group discussion time.

Activity (3):

In small collaborative groups, students will list social media pros and cons from their point of view.

Students will present their findings in front of the whole class.

Exit Ticket:

Each student will write down a reflection about one thing he/she learned today, one thing he/she found interesting, and one question he/she still has.

Formative Assessment:

Shoot a video on Flipgrid talking about how you can keep yourself safe while using social media websites.

To be able to shoot this short speech, you have to research the following items:

-Internet safety

-How kids can use social media safely.

-How you can check accurate information from fake ones shared on social media websites.

You can watch these videos to enrich your ideas:

https://www.youtube.com/watch?v=QATk_yHzgY4 We are all broadcasters

<https://www.youtube.com/watch?v=H3P73NqR7s0> How to tell what's true online

Session Nine (Online)

Session Duration: 120 minutes

Objectives:

- Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) to build on others' ideas and express their own.
- Search how social media influences our society.
- Outline a research paper.
- Generate research questions.
- Break down a research topic into short phrases and sentences.

Resources & Materials:

- Zoom application
- Nearpod interactive presentation
- Computer, tablets, and/or mobiles

Overview:

In this session, students will inquire into how to do a research paper applying all that they have learned during the previous sessions, starting from how to narrow down a research topic, how to write research questions, how to outline for their research paper, how to check resources validity, how to write references, and how to paraphrase the information they hear, watch, and read to avoid copying others' work.

Activity (1):

Students will be asked to do a research paper on social media's influence on our society.

Class Discussion:

The teacher will ask students some questions to sum up all the ideas they have presented while demonstrating their points of view about social media pros and cons:

What are the advantages of social media?

What are the disadvantages of social media?

Based on your answers, how do you think social media influences our society?

What kind of changes did you notice after social media existence?

Activity (2):

Students will be asked to dig deep and search for more information about the influence of social media on our life.

First, in Zoom breakout rooms, they will work collaboratively into small groups to fill in this research outline and brainstorm all ideas they already have about this topic.

Research Paper Outline

Step 2- Questions I will ask:

.....
.....
.....
.....
.....
.....

Step 3- Phrases and sentences I will use while searching online about this topic

.....
.....
.....
.....

Step 1- Topic I'm going to search about

.....
.....
.....
.....

Step 4- What I already know about this topic

.....
.....
.....
.....
.....
.....

Step 5- What I want to know about this topic

.....
.....
.....
.....

Step 6- What sources/ materials I will use to find answers to my questions

.....
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.....
.....
.....
.....
.....

Then, students will share their research paper outlines to enrich their knowledge and share their learning experiences.

Exit Ticket:

Each student will write down a reflection about one thing he/she learned today, one thing he/she found interesting, and one question he/she still has.

Assignment:

Students will use the outline they have filled in during the session to search about the effect of social media on our life.

Students will collect their findings on a PPT presentation or a Word file.

Session Ten (Offline)

Session Duration: 80 minutes

Objectives:

- Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) to build on others' ideas and express their own.
- Develop ways to raise their awareness of what they hear, watch and read to be digitally literate.
- Evaluate different online resources based on their reliability.
- Paraphrase online resources they read, hear and watch.

Resources & Materials:

- Whiteboard
- Charts
- Markers
- Computer
- YouTube videos

<https://www.youtube.com/watch?v=aem3JahbXfk>

Evaluating Websites

Overview:

In this session, students will inquire into how to how to do a research paper applying all that they have learned during the previous sessions starting from how to narrow down a research topic, how to write research questions, how to outline for their research paper, how to check resources validity, how to write references, and how to paraphrase the information they hear, watch, and read to avoid copying others' work.

Activity (1):

Peer Assessment:

Students will start presenting their findings, and other students will start giving them feedback on their work regards the following:

Did the presenter....	Yes	No
1-Copy and paste information from websites		
2-Use Trustworthy resources		
3-Add his/her understandings and/or opinion of the topic		
4-Add different modes like pictures, sound, video, etc. to his/her work		
5-Write resources and references he/she used in the research		

Activity (2):

The teacher will highlight that copying and pasting information from the Internet is not ethical. This way, you take others' work, and you don't add your ideas. To avoid this, while searching to check different resources, make sense of what you read, and finally write what you understood, adding your point of view and experiences. This is what is called paraphrasing.

The teacher will display samples of students' work, and they will work collaboratively to paraphrase the information they copied and pasted from different websites.

Students will share their work with other groups to notice the differences between their first draft and second draft.

Activity (3):

The teacher will ask students to watch this YouTube video, "Evaluating Websites," and take notes.

<https://www.youtube.com/watch?v=aem3JahbXfk>

The teacher will ask students to share their notes answering the following questions:

How to check if a resource presents real or fake information?

What are the steps to follow to evaluate websites?

Assignment:

Rewrite any parts in your research paper that you just copied and pasted from different resources using your own words. Try to enrich your research paper with real-life experiences and by adding your point of view. Moreover, you can interview adults, friends, etc., to make your work look and sound real.

Also, recheck if the resources you used are real or fake based on the steps presented in this video.

<https://www.youtube.com/watch?v=aem3JahbXfk>

Evaluating Websites

Session Eleven (Offline)

Session Duration: 80 minutes

Objectives:

- Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) to build on others' ideas and express their own.
- Develop ways to raise their awareness of what they hear, watch and read to be digitally literate.
- Cite different resources.
- Understand the importance of citation and adding references to your research paper.
- Investigate the impact of adding different modes on the audience and readers.

Resources & Materials:

- Whiteboard
- Charts
- Markers
- Computer
- YouTube videos
<https://www.youtube.com/watch?v=-JV9cLDCgas>

Citing Sources: Why & How to Do It

Overview:

In this session, students will inquire into how to how to do a research paper applying all that they have learned during the previous sessions starting from how to narrow down a research topic, how to write research questions, how to outline for their research paper, how to check resources validity, how to write references, and how to paraphrase the information they hear, watch, and read to avoid copying others' work.

Activity (1):

Students will be asked to watch a YouTube video <https://www.youtube.com/watch?v=-JV9cLDCgas> “Citing Sources: Why & How to Do It” and think collaboratively, in small groups, of the following questions:

Why should we write resources at the end of any research paper we do?

What do you think will happen if all people did not add the references and resources they use in their research paper?

How can we write references correctly?

Activity (2):

Students will modify their work in the computer lab, adding references using a reference maker website <https://www.citethisforme.com/> and adding different pictures, videos, sound, etc., to their work can have a more profound impact on the reader and audience.

Exit Ticket:

Peer Assessment:

Students will use this checklist again to reevaluate each other’s work.

Did the presenter...	Yes	No
1-Copy and paste information from websites		
2-Use Trustworthy resources		
3-Add his/her understandings and opinion of the topic		
4-Add different modes like pictures, sound, video, etc. to his/her work		
5-Write resources and references he/she used in the research		

Summative Assessment:

Students will take the study posttest in the school computer lab (Appendix A).

Reading texts & handouts used while students were inquiring into media and its impact

Mass Media

(1) The mass media play an important part in our lives. Newspapers, radio, and especially TV inform us of what is going on in this world and give us fantastic education, entertainment, and communication possibilities. They also influence the way we see the world. They can change our views.

(2) Of course, not all newspapers, TV programs, news presenters, radio commentators, or entertainers report events objectively all the time. In other words, they can be **biased** sometimes. However, many serious journalists and TV reporters try to be as fair and professional as possible. They try to provide us with reliable information. Some people say that journalists are given too much freedom. **They** often intrude on people's lives. They follow celebrities and print sensational stories about them, which can be untrue or half-true. You have probably heard of the "**Paparazzi**"; they are independent photographers who take pictures of athletes, entertainers, politicians, and other celebrities, typically while going about their life routines. The question is: should this be allowed?

(3) Today's world is full of **dramatic** events, and most news seems to be bad news, but people aren't interested in ordinary events anymore. That is why many TV programs and articles about natural disasters, plane crashes, wars, murders, and robberies. The good news doesn't usually make headlines. Bad news does.

(4) One main source of news for millions of people is television. People like TV news because they can see everything with their own eyes, and that's a **paramount** advantage. Seeing, as we know, is believing. Besides, it is much more difficult for politicians to lie in front of the cameras than on the front pages of newspapers. Still, others prefer the radio. It is good to listen to the radio while in the car, or in the open air, or while you are doing something around the house. Newspapers don't react to events as quickly as TV does, but **they** usually provide us with extra details, comments, and background information. The internet has recently become another important source of information. Its main advantage is that news appears on the screen as soon as things take place in real life, and you don't have to wait for news time on TV.

Based on what you read in the following text:

Are these statements true or false? Justify your answers.

1. The goal of mass media is only to entertain us.
.....
2. Nowadays, people act differently to ordinary events.
.....

Answer these questions.

1. Why do people like TV?
.....
2. What makes the internet, as a source of information, better than TV?
.....

What do the underlined words in the text refer to?

1. they (paragraph2)
2. they (paragraph 4).....

Find in the text words or phrases that mean the same as ...

1. affect (paragraph1)
2. Famous people (paragraph2)
3. happen (paragraph3)

Search for the meaning of the words written in bold:

1. biased (paragraph 2).....
2. Paparazzi (paragraph 2).....
3. dramatic (paragraph 3).....
4. paramount (paragraph 4).....

Name: _____

Ad Analyzer

Choose an ad of your choice from a commercial, the internet, a magazine, billboard, poster, or radio. Complete the following chart for your ad.

Describe the Product or Service and Who The Target Audience Would Be

Where Did You See the Ad? Was This an Effective Place? Why or Why Not

List the Pluses and Minuses About This Particular Ad

What Would You Change or Add to This Ad? Why?

Jigsaw Reading about Advertising

WHAT IS ADVERTISING?

- ^[1] Advertising is a way of communicating with people about a product or service. Usually, it gives people information about the product or service and to explain why they should buy it. Sometimes it communicates with people about why they should continue buying. In the case of advertising, communicating doesn't simply mean talking to them. Advertisements are communicated to people using every possible method, including television, radio, magazines, and websites. An advertisement can be anything from the commercial before a YouTube video to the small banner on the side of a webpage. These days, there are so many ways of communicating that people are nearly always being exposed to advertisements, from products endorsed by Kendall Jenner on Instagram to the lawyer's face on the bus bench. 




"Times Square" by These "Are" My "Photons" is licensed under CC BY-NC 2.0.

WHEN DID ADVERTISING EMERGE?

- ^[1] Before the early 1900s, advertisements were more informative than persuasive, relegated to tiny print at the backs of magazines. It was generally thought that if a picture was trying too hard to sell you a product, the product was probably hogwash — absurd, foolish, and unlikely to work. The ads were also incredibly localized. Philadelphia newspapers ran ads in the back of the paper, informing consumers about Philadelphia stores and products.


However, as the industrial revolution  took hold of the country, suddenly there were more standardized products on the market. National advertising became much more popular. It started to become almost necessary for companies to advertise, in order to sell enough products to survive. Advertising agencies moved from selling small space in the backs of local papers to designing increasingly creative ads. As consumer spending ramped up  throughout the 1920s, advertising followed suit. In the 1960s, advertisements became much more creative and started to look more like what we would see today. The advertising industry became more important and started to attract writers, artists, and musicians.

As advertising became more popular and artistic, it also became more pervasive.  By the 1970s and 80s, advertising was everywhere.


WHO IS BEHIND ADVERTISING?

Worldwide, advertising is a billion-dollar industry, with nearly \$500 billion spent in 2016. That industry includes the companies that place advertisements, the agencies that create them, and the media that runs them.


A really good advertisement isn't easy to make. Companies sometimes hire agencies to solve this problem for them. Advertising agencies write, design, and create the advertisement. Today, advertising agencies create all sorts of ads that go on TV, in magazines, across the bottom of mobile apps, or on the sides of buses. But not all companies use advertising agencies. Some hire creative people to work at the company and write, design, and create ads just for that company, year-round.

Once an advertisement is produced, it will be passed on to a media company who will then run the advertisement. When a media company runs an ad, it ensures that viewers have to see the advertisement. That is why magazines have full-color photos of new bags to purchase and the Super Bowl plays commercials in the middle of the game. In fact, the Super Bowl is so widely watched that companies often pay more than a million dollars for the ad slot and the commercials are anticipated all year long. For most media companies, advertisements are the main way the company makes money. If a television show can prove that 1 million people will be watching, companies will pay a lot of money for those people to have to watch their ad as well. Without advertising, we likely would not have television shows, magazines, newspapers, or internet content that we could watch or read without paying a subscription fee. 


HOW AND WHY DOES ADVERTISING WORK?

Advertising works by connecting products to positive feelings or experiences. Through the power of advertising, a scented candle becomes synonymous  with the feeling of warmth, coziness, and being at home. Candy canes are associated with Christmas. Steak and lobster dinners are instantly linked to luxury and to feeling powerful. Vegas brings up thoughts of fun. And a diamond ring, rare and valuable, becomes an integral part of getting engaged.

But a really good advertisement wants to do even more. It wants consumers to remember it and to connect the brand to that advertisement. That is why most people can name more breakfast cereal mascots than US presidents. And it's why advertisers create slogans, jingles, and characters for their campaigns.

As Nigel Hollis, writing in *The Atlantic*, explains it, "the best advertisements are ingenious at leaving impressions." He goes on to describe a friend, who, after claiming that advertisements did not have such an effect, could quote the jingles and premises of ads for an entire range of products. 

These days, advertising is constant. But, because of how and why advertising works, it can have negative effects on society. Take the beauty industry for example. A makeup company, like Maybelline, wants people to associate its product with feeling happy, healthy, skinny, and naturally beautiful. The company comes up with a slogan — Maybe she's born with it. Maybe it's Maybelline. And they hire a slim model to wear the product in the advertisement. Tricks of light and makeup are used to make the model appear to naturally have the attributes the makeup enhances. People start to associate looking like that model with both the product and the brand, through the catchy slogan. And so people buy the product to look like the model... even though the model looks that way because of Photoshop, not mascara. Advertisements work to sell things through association and brand recognition, not by conveying truth. As ads become ubiquitous, these appeals to our desires can become harmful.

People rarely go to buy a product directly after seeing an advertisement. Instead, the ad works to associate positive memories with the product and recognition of the brand. The power of advertising is in the long game. 



Student Worksheet 2



Name: _____

Part 1: Ad Techniques

Here are some of the most common techniques advertisers use to convince you to buy or do something. Think of an example for each—and remember that advertisers decide what to put in their ads.

- **Association:** Using images (like a cartoon character or the American flag), in the hope you'll transfer your good feelings about the image to the product.
- **Call to action:** Telling you what to do—"Buy today!" or "Vote now"—removes all doubt about next steps.
- **Claim:** Informing you about how the product works or helps you.
- **Games and activities:** Putting a commercial into the form of a game can be a fun way for you to get to know more about a product and spend more time with it.
- **Humor:** Using ads that make you laugh can catch your attention and be memorable.
- **Hype:** Using words like *amazing* and *incredible* make products seem really exciting.
- **Must-have:** Suggesting that you must have the product to be happy, popular, or satisfied.
- **Fear:** Using a product to solve something you worry about, like bad breath.
- **Prizes, sweepstakes, and gifts:** Using a chance to win a prize to attract attention.
- **Repetition:** Repeating a message or idea so you remember it.
- **Sales and price:** Showing or announcing a discounted price can make a product look better.
- **Sense appeal:** Using images and sounds to appeal to your senses: sight, touch, taste, etc.
- **Special ingredients:** Promoting a special ingredient may make you think the product works better than others.
- **Testimonials and endorsements:** Featuring someone, like a celebrity, saying how the product worked for them can be convincing.

Part 2: Find the Techniques!

Identify techniques in magazine or newspaper ads. Find three ads and use a separate sheet of paper to answer the following questions about each ad.

1. Who is responsible for the ad?
2. What audience is the ad targeting?
What makes you think so?
3. What techniques does the ad use?
4. What does the ad say or suggest about the product or service?
5. What does the ad say about the people who buy the product or service?



THE ADVERTISEMENT DETECTIVES!



Who is the target audience?

Who sends the message?

What is the message?

What does the ad want you to buy, think or do?

What techniques are used to attract attention?

Would you buy into this product or idea?

Appendix (F)

21st Century EFL Literacy Post-Study Survey

Access the following survey through this link:
<https://freeonlinesurveys.com/s/vuMJHV12>

1) Can you check if online websites provide true or fake information?

A Yes, I can do it without any help

B Somehow (I can do it, but I need my teacher's help)

C No, I cannot do it.

2) Can you write research (strong) questions?

A Yes, I can do it without any help

B Somehow (I can do it, but I need my teacher's help)

C No, I cannot do it.

3) Can you show understanding of what you read and/or watch from online and/or offline resources?

A Yes, I can do it without any help

B Somehow (I can do it, but I need my teacher's help)

C No, I cannot do it

4) Can you use different modes in your presentation to have a deeper impact on your audience?

A Yes, I can do it without any help

B Somehow (I can do it, but I need my teacher's help)

C No, I cannot do it

5) Can you understand hidden messages presented in media and know the content creator's and/ or author's point of view?



A Yes, I can do it without any help

B Somehow (I can do it, but I need my teacher's help)

C No, I cannot do it

6) Can you understand the importance of writing references (resources) at the end of your PPT presentation and/or research paper?



A Yes, I can do it without any help

B Somehow (I can do it, but I need my teacher's help)

C No, I cannot do it

7) Can you write references (resources) correctly?

A Yes, I can do it without any help

B Somehow (I can do it, but I need my teacher's help)



C No, I cannot do it

8) Do you know how to select online and/or offline safe and child-friendly resources?

A Yes, I can do it without any help

B Somehow (I can do it, but I need my teacher's help)

C No, I cannot do it

9) If you read information online from different websites, will you copy and paste the information in your PPT or research paper without any change?  

A Yes

B No

10) If you read information online from different websites, will you understand what you read and write it in your own words? 

A Yes

B No

11) What was the most favorite part of the social media unit of inquiry?

A Interpreting different adverts' messages and techniques

B Understand the effect of using different modes on audience

C Learning how to understand and think deeply of what we read/watch online/offline and express our own point of view

D Learning how to select trustworthy information and check if it is true or not

E Learning how to select safe online resources

F Learning how to write references correctly

G Learning how to write strong research questions

12) What was the least favorite part of the social media unit of inquiry?

A Interpreting different adverts' messages and techniques

B Understand the effect of using different modes on audience

C Learning how to understand and think deeply of what we read/watch online/offline and express our own point of view

D Learning how to select trustworthy information and check if it is true or not

E Learning how to select safe online resources

F Learning how to write references correctly

G Learning how to write strong research questions

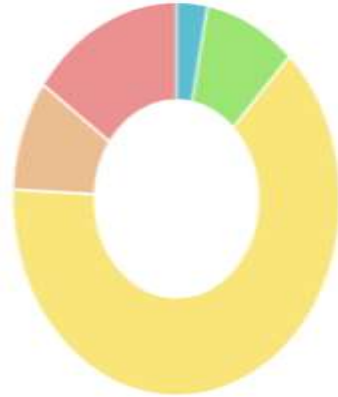
Appendix (G)

Samples of the Pilot Study Findings

Samples of teachers' responses to the semi-structured survey:

3

What is the most common academic problem that you face while teaching to early primary stage students?



3% (1)

They cannot blend sounds correctly

9% (3)

They can't comprehend what they read

64% (21)

They are unable to express their thoughts through writing

9% (3)

They don't have the sufficient knowledge needed to fit into his/her academic year

15% (5)

All of the above

6

According to your own understanding, what is meant by literacy and what is its relation to 21st century?

Literacy is the ability to read, write, think and change. This ability is so essential to acquire the life skills that we need in the 21st century.

Today literacy has a different meaning. I'm always struggling that the students are able to talk but they can't understand what they read and can't write too. Technology is playing a big part when it comes to literacy too.

Enhancing meta cognitive skills

Ability to read and write.. important for everything ...signs, food covers, stories etc

Using technology

It is student's ability to cope with new learning techniques. Also, he is able to address global issues and apply them in the four language skills.

Literacy is the ability to read and write effectively in order to communicate in the 21st century, irrespective of digital media or not

Knowledge in a specific area. Also the ability to read and write

The whole language approach

Being able to apply what you have learned in your life

the required knowledge on the student's part

Show recent 5 | All

7

What activities do you use to enhance literacy?

Myon

Games , roleplays, storytelling, writing poems , guided reading , follow up activities after trips and events , presentations and projects.

Reading and writing skills

Discussions, modeling, group reading and writing, partnered reading and writing.

Choral reading, teaching CVC, listening and following in their books, if a student is lagging behind, he takes some one to one sessions.

Presentation, project based learning

Centers

The integrated skills

Activities related to speaking skills

Projects and researches

Think-pair-share , heads together, literature circles

Show recent 5 | All

8

What kind of assessment strategies do you use to assess literacy?

Vocabulary quizzes, comprehension quizzes, unsupported writing

-

Class survey writing practice through puzzles and cross words reading more articles

العمل في مجموعات وتبادل الأدوار

لعبة الأدوار

Self and peer reflection on reading & writing pieces wether in written or spoken way.

Diagnostic tests

Formative and summative assessments

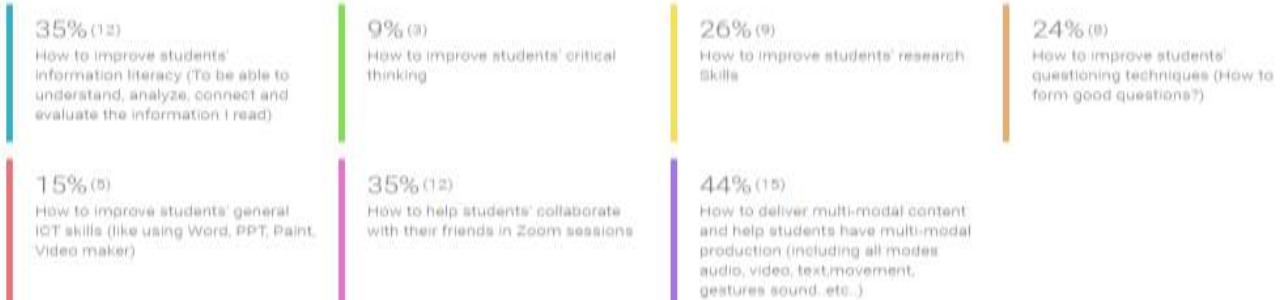
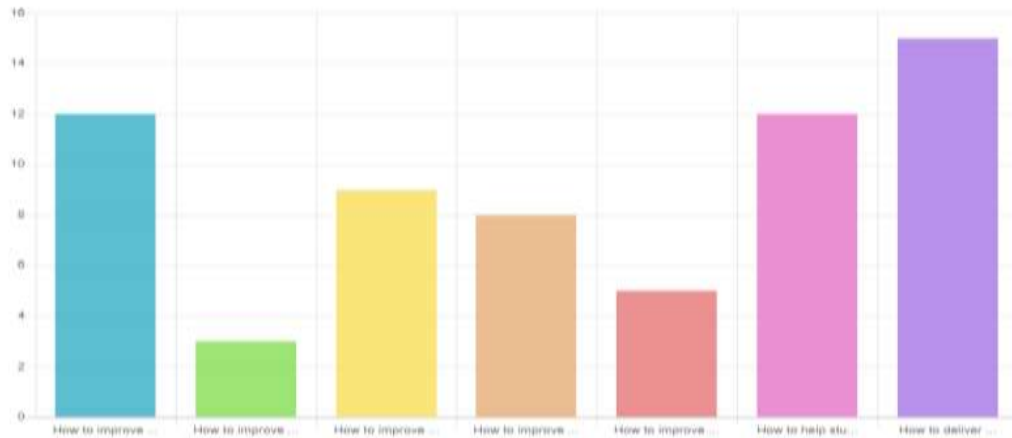
Writing essay / making conversation

Comprehension passages, spelling and vocabulary quizzes.

Formative and summative

Show recent 5 | All

3 After delivering whole content online, what teaching strategies and skills do you need professional development at?



6 List some problems you face while teaching online...

connection problems on students' side

Student's going away from computer to do something, having their breakfast during session, sitting in bed, looking at their parents to get the answer 😞

Differentiated availability because of time limit and direct contact tact with my students

Many students didn't have access to technology or just didn't log on if they did

Having little experience using the technology needed at the beginning

lack of student engagement, lack of work completion, lack of knowing what the students are doing or if they understand

practical

Some students prefer not to interact.

Improper environment at the students' houses, the internet connection and lack of interaction

Some time the connection of internet, also a lot of Question but I am trying to organize this issue

Gathering them, repeating information for more than 10 times and some of them still don't understand

Show recent 5 | All

Samples of students’ responses to the semi-structured survey and the semi-structured interview, in addition to the English language diagnostic test results:



Reading	Writing				Grammar	Vocabulary	Spelling/P honics	Listenin g
	Organizati on & developme nt of Ideas	Word choice and relevance	Conventio ns	Total				
0.8	1	2	1	1.333333333	2.9	1.6	nun	3.2
1.6	1	2	1	1.333333333	2.5	0.8	nun	1.6
1.6	1	3	2	2	3.6	2.8	nun	3.2
3.2	1	2	2	1.666666667	2.9	2	nun	3.2
0.8	2	3	1	2	3.3	4	nun	3.2
2.4	3	3	2.5	2.833333333	3.2	2.4	nun	3.2
3.2	2	2	2.5	2.166666667	2.6	2.8	nun	3.6
3.2	1	2	2	1.666666667	3.6	2.4	nun	3.2
1.6	1	2	1	1.333333333	2.5	0.8	nun	2.4
2.4	2	3	2	2.333333333	3.7	2.8	nun	4
1.6	1	2	1	1.333333333	3.2	2	nun	2.4
1.6	1	1	1	1	2.8	2.4	nun	4
3.2	2	3	3	2.666666667	3.7	2.8	nun	4
2.4	2	2	2	2	3.7	2	nun	3.2
0.8	1	1	1	1	2	1.6	nun	2.4

Reading	Writing				Grammar	Vocabulary	Spelling/P honics	Listenin g
	Organizati on & developme nt of ideas	Word choice and relevance	Conventi ons	Total				
1.6	1	1	1	1	2.1	2	nun	3.2
3.2	2	1	0	1	3.1	2.4	nun	4
2.4	2	3	3	2.666666667	2.6	2.4	nun	3.2
0	1	1	1	1	1.9	1	nun	4
0.8	3	2	3	2.666666667	0.1	0.8	nun	4
3	1	1	1	1	3.4	1.2	nun	3.2
3.2	3	3	3	3	2.8	2	nun	3.2
1.6	1	1	1	1	1.1	2	nun	2.4
0.8	1	1	0	0.666666667	1.7	1.2	nun	2.5
0	0	0	0	0	0	0	nun	1.6
2.4	2	1	1	1.333333333	1.4	2.4	nun	3.2
2	0	0	0	0	1.8	0	nun	2.4
2.4	3	3	3	3	3.4	0.2	nun	3.2
4	0	1	1	0.666666667	3.7	2	nun	3.2
3.2	1	0	1	0.666666667	2.9	2.8	nun	3.2
0.8	2	2	1	1.666666667	2	1.6	nun	2.4



10 If your answer is less than four stars, kindly write why.

Because the picture is lagging and I can't communicate easily with them

because i want to be late

Because I can't see my friends and teachers .

I Can not communicate with my friends, I can concentrate in face to face classes.

because its boring

I have to wake up early

boring

Because some times its really hard for me .

it was hard

I cant hear and I dont understand

because i need my parents help more

We are not together

I missed working with my friends

The internet connection is bad

Show recent 5 | All

Appendix (H)

Samples of students'
work during the study
program

Samples of students' research outlines:

Louise

Research Paper Outline

(2) Questions I will ask:
Why tiktok is bad? What is the effects of it?
Why do we need social media?

(3) Phrases and sentences I will use while searching online about this topic:
Social media effects.
What is social media?
do we need social media?

(4) What I already know about this topic:
people are rumor they could post Fake post.
debrities could say or lie.

(1) Topic I'm going to search about:
The effects of social

(6) What sources/ materials I will use to find answers to my questions:
Google and adults

(5) What I want to know about this topic:
Why social media is important? why or why not?
Effects of social media

LHams-Hashim
LPYP7A 21-4-2021

Research Paper Outline

(2) Questions I will ask:

- ① Who owns all the social media apps.
- ② Does social media only work with Internet?
- ③ Is the government holding all the apps?

(4) What I already know about this topic:

I know that you can gain money through making videos.

I can make you gain depression by cyber bullying.

(5) What I want to know about this topic:

I want to know that social media has never warning or age limit.

(1) Topic I'm going to search about:

The effects of social media.

(3) Phrases and sentences I will use while searching online about this topic:

(Why?) Social (media) How) IS social media effective.

(6) What sources/materials I will use to find answers to my questions:

I will use Wikipedia and captions or keywords.

Examples of students' reflections:

1. Use the search bar
2. Use bookmarks
3. Use tabs

Rogain

Use the address bar.

When you are searching something, you can click book mark or remove to add the word for kids.

Use tabs to add extra things.

For example, you are searching about lizards, you can make a new tab, and search what do lizards eat. You can get more resources to be sure from the information.

How do people track identities on social and mass media? How do people create applications?

What do people make use of when they track identities?

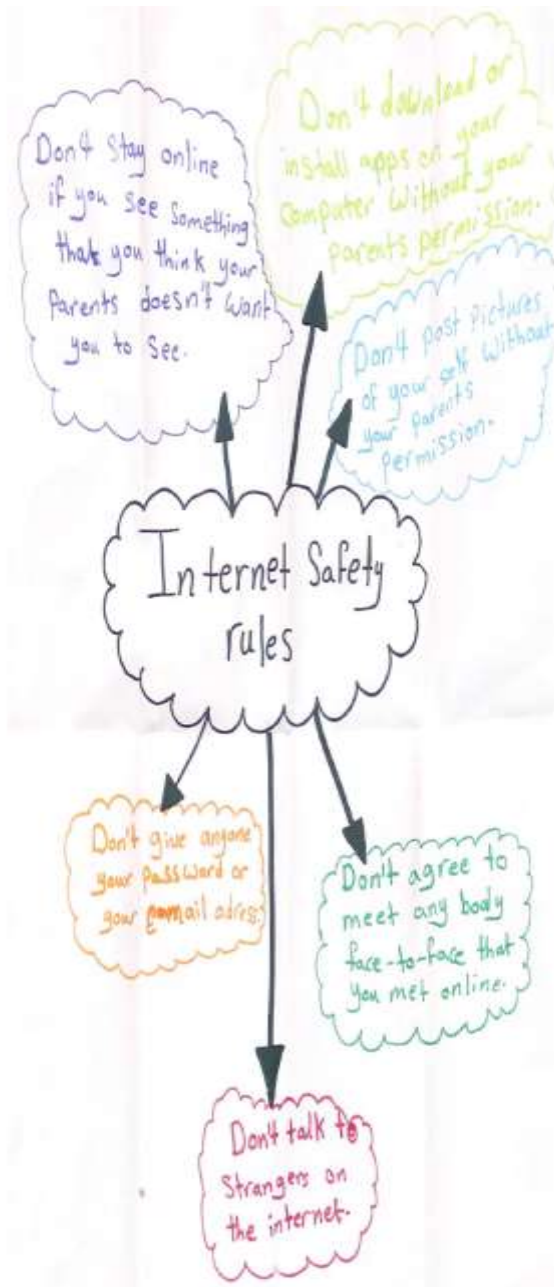
Talia PYZA

Not all people on apps can help you. That means you need to be sure about what you are searching about.

Go to the top search results. Look for purpose and bias.

How do people know these things? How can people make the world better with social media / mass media.

Samples of students' posters during the online safety campaign:



The graphic poster features the word "SMART" in large, colorful letters, with each letter corresponding to a safety tip:

- S Stay Safe:** Don't give out your personal information to people / places you don't know.
- M Don't Meet Up:** Meeting someone you have only been in touch with online can be dangerous. Always check with an adult you trust.
- A Accepting Files:** Accepting emails, files, pictures or texts from people you don't know can cause problems.
- R Reliable?:** Check information before you believe it. Is the person or website telling the truth?
- T Tell Someone:** Tell an adult if someone or something makes you feel worried or uncomfortable.

Below the tips is a smartphone displaying a list of rules:

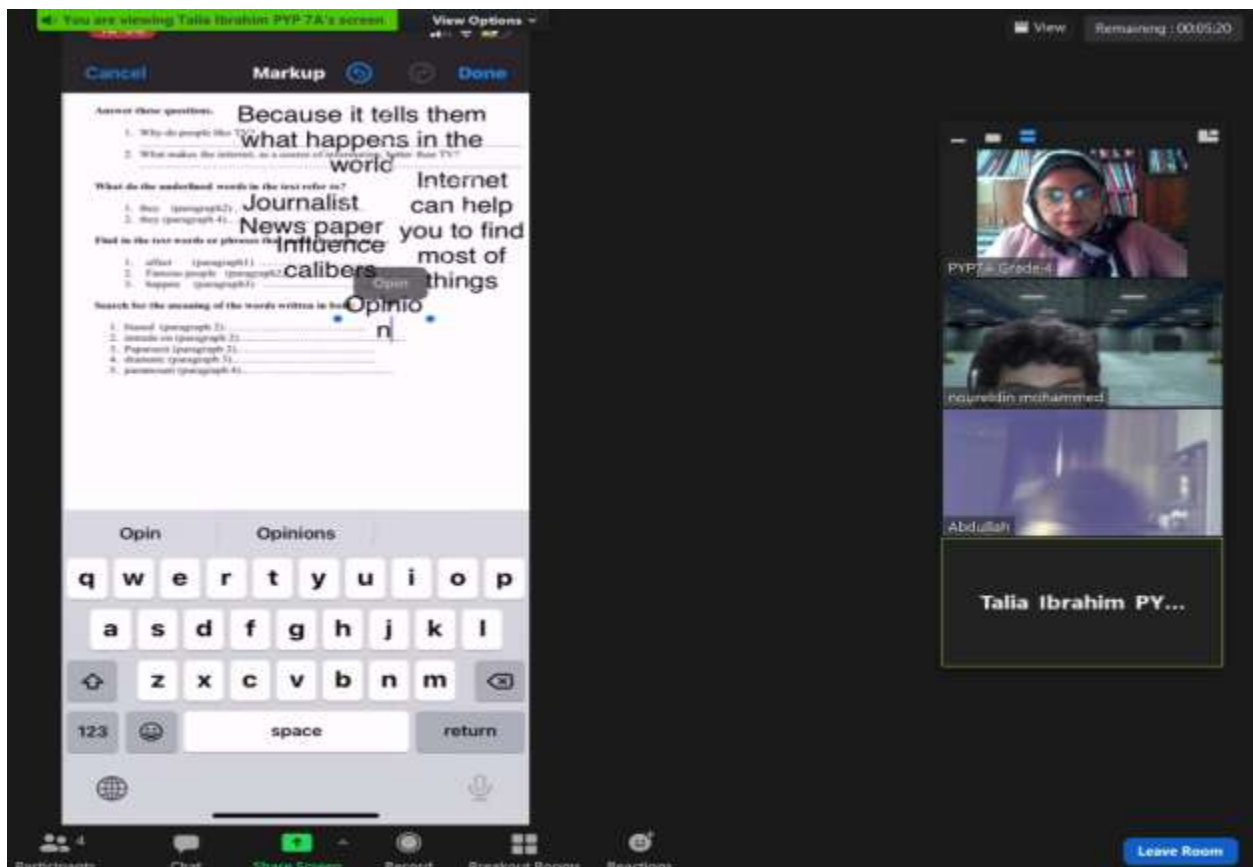
These are the most important steps always put strong passwords don't tell anyone except your parents don't open any link from an unknown person don't open social media except when you have 13 years old don't tell your name hello to any unknown person don't say information about your family and about your identity and personal information always update your phone

TALIA IBRAHIM PYP7A
POSTER SAFTEY ON
INTERNET

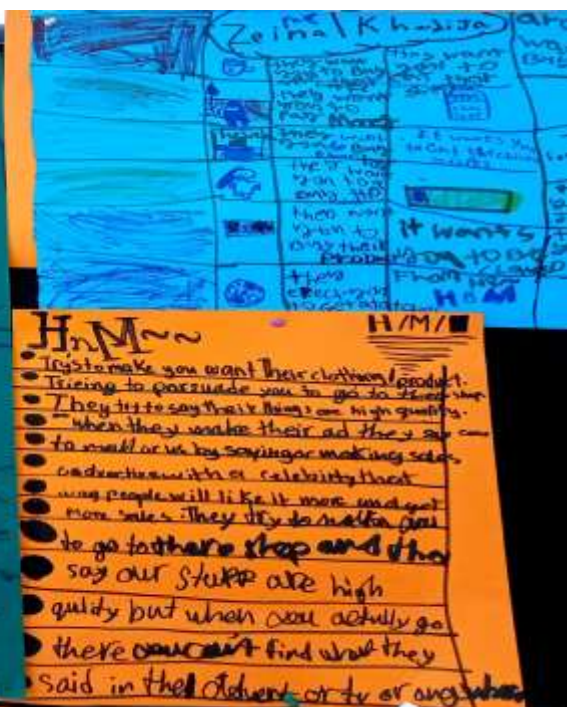
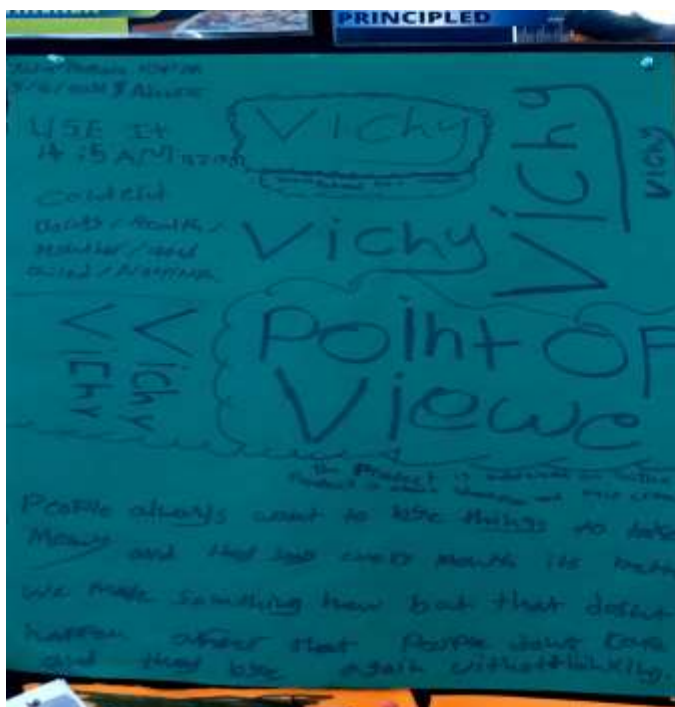
Samples of students' work while constructing meaning and summarizing different online and offline texts collaboratively:

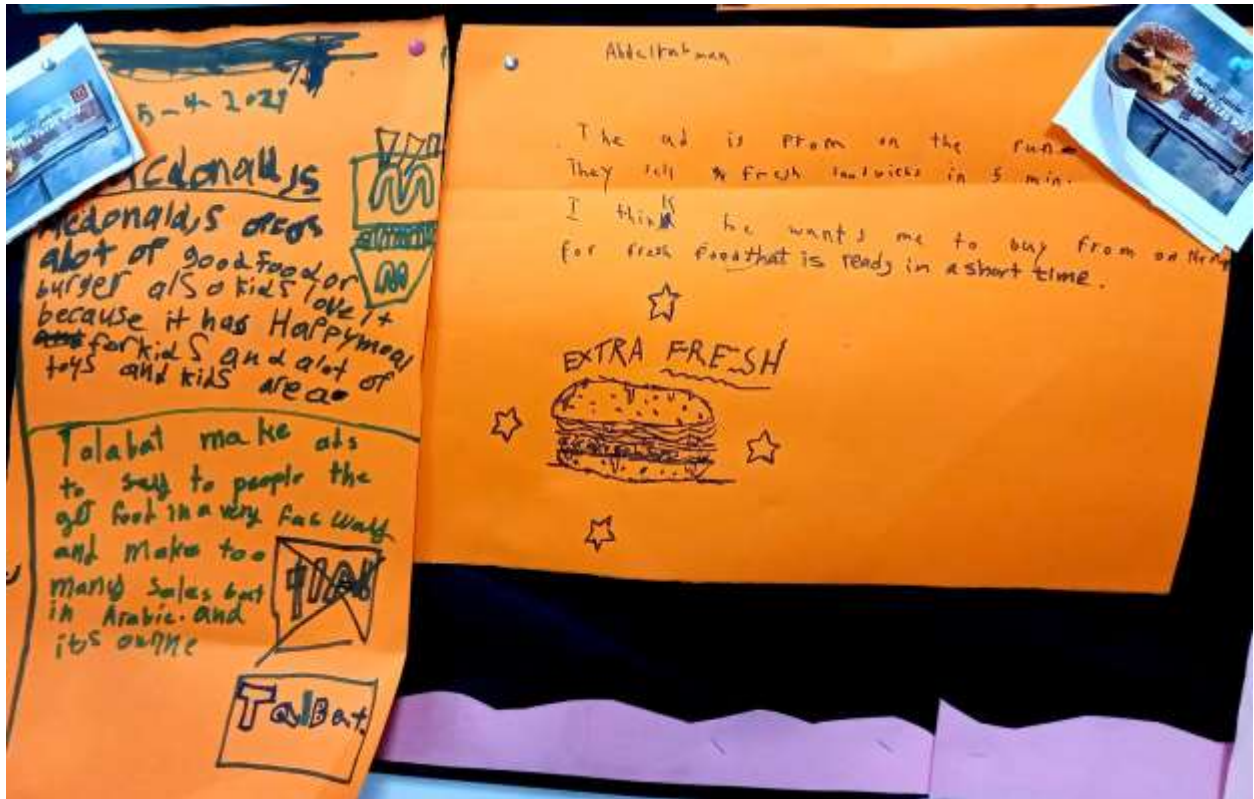






Samples of students' work while interpreting and analyzing different adverts trying to understand the impact of using various modes on audience through getting engaged into various inquiry activities:





max
Name: Dina

Ad Analyzer

Choose an ad of your choice from a commercial, the internet, a magazine, billboard, poster, or radio. Complete the following chart for your ad.

<p>Describe the Product or Service and Who The Target Audience Would Be</p> <p>the service is M&M's target is people love Junk Food</p>	<p>Where Did You See the Ad? Was This an Effective Place? Why or Why Not</p> <p>on TV NO because it's just about Junk Food.</p>
<p>List the Pluses and Minuses About This Particular Ad</p> <p>every thing positive</p>	<p>What Would You Change or Add to This Ad? Why?</p> <p>add some reviews for people to see if the service is good or bad</p>

THE ADVERTISEMENT DETECTIVES!



<p>Who is the target audience?</p> <p>adults, kids and teen women</p>	<p>Who sends the message?</p> <p>Doritos think completing</p>
<p>What is the message?</p> <p>Doritos is good if you drink milk you will be strong</p>	<p>What does the ad want you to buy, think or do?</p> <p>EQ and buy etc.</p>
<p>What techniques are used to attract attention?</p> <p>they used Hyper Feel</p>	<p>Would you buy into this product or idea?</p> <p>yes. yes. it has calcium</p>

Samples of students' post-test research papers and checklists:

Items to check	Yes	No
1-You wrote in your words what you understood about social media and its effect on people's life.	✓	
2-Your paper is organized using title and headings.	✓	
3-You included modes like pictures, graphs, videos, audio and/or captions in your paper that are related to your research topic.	✓	
4- You wrote 200 words.	✓	
5- You wrote the references/ sources (websites, books and/or videos) you used at the end of your paper.		✓

Research Paper Checklist

Items to check	Yes	No
1-You wrote in your words what you understood about social media and its effect on people's life.	♡	
2-Your paper is organized using title and headings.	♡	
3-You included modes like pictures, graphs, videos, audio and/or captions in your paper that are related to your research topic.	♡	
4- You wrote 200 words.		♡
5- You wrote the references/ sources (websites, books and/or videos) you used at the end of your paper.	♡	

Think what I am going to talk about?



Negative ideas

- It gives you bad news and bad ideas.



Bad things happened in social media ?

- It has a lot of negative things.



It is social media.

Look I will tell you something you wont recognize . Social media never leave you alone . You can use it when you are bored and you are done with what is in your hand . When you sit and see news you want to complete watching . It chain you and you cant leave it .



It has somethings good.

- It gives us information to know the weather and a lot of things more..



Sources:

- Google photos .

- Social media is addictive.

- People bully each other online using cyber bullying.

Negative Effects:



- Social media makes people harm themselves emotionally and physically.

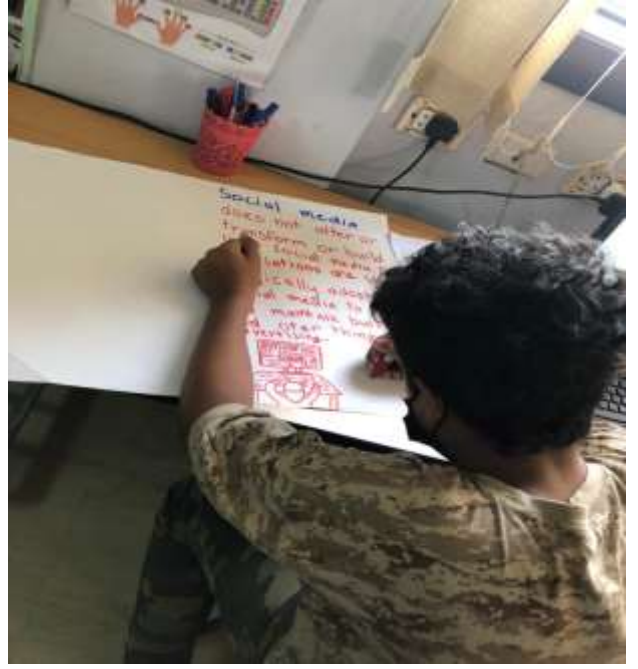


Citation:

- <https://www.lifespan.org/lifespan-living/social-media-good-bad-and-ugly>

- <https://www.thebalancesmb.com/what-is-social-media-2890301>





Appendix (I)

School Approval Letter to
Conduct a Study on 4th Primary
Stage Students at MHIS



محافظة القاهرة

إدارة شرق مدينة نصر

مدرسة منارة هليوبليس الدولية

تحية طيبة و بعد،

تفيد إدارة مدرسة منارة هليوبليس الدولية أن / نفين حسين محمد شفيق جنديّة
تعمل معلمة لغة إنجليزية لدينا و ذلك من أغسطس 2016 حتى الآن و أن المدرسة
ليس لديها أى اعتراض على تطبيق البرنامج الخاص برسالة الماجستير الخاصة بها
و هذه إفادة منا بذلك لمن يهمه الأمر...

و لكم منا جزيل الشكر،

تم تقديم هذا الطلب بناء على طلبها دون أدنى مسؤولية على المدرسة

توقيع مدير المسئول:
التاريخ: ١٥ / ٢ / ٢٠١٥



Appendix (J)

Study Summary in Arabic

ملخص الدراسة باللغة العربية