RedFame

Journal of Education and Training Studies
Vol. 12, No. 4; October 2024
ISSN 2324-805X E-ISSN 2324-8068
Published by Redfame Publishing
URL: http://jets.redfame.com

Maximizing the Benefits of ChatGPT with FIRST-ADLX Framework: Promoting Responsible, Ethical, and Impactful AI Integration in Education

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Received: May 26, 2024 Accepted: July 1, 2024 Online Published: July 11, 2024

doi:10.11114/jets.v12i4.6933 URL: https://doi.org/10.11114/jets.v12i4.6933

Abstract

In the era of fast technological advancements and the inclusion of Artificial Intelligence (AI) in education, it is more important than ever for educators to have a pedagogy that embeds this technology. A humanistic approach to education is demanded. The focus on the individual student and their emotional and spiritual needs is essential if an active deep learner experience is to be created.

This paper aims to explore the integration of Chat Generative Pre-Trained Transformer (ChatGPT) within Focusing, Interacting, Reviewing, Sequencing, Transforming-Active Deep Learner eXperience Framework (FIRST-ADLX Framework) and investigate the framework's capacity to effectively incorporate the latest technology while prioritizing the learners' needs and promoting responsible and ethical use of AI in education. By embedding ChatGPT within a comprehensive, holistic, and humanized Framework that prioritizes pedagogy over technology and focuses on the learner rather than on the digital tool, it becomes possible to create an immersive and impactful ADLX. This ensures that the technology used enhances the learner's experience and does not overshadow it. Furthermore, the study shows how the implementation of the domains and principles of FIRST-ADLX Framework can maximize the benefits of ChatGPT in particular, encourages facilitators and learners to embrace AI technologies as valuable tools and resources, and supports both in utilizing AI ethically, responsibly, and appropriately.

The study adopts a qualitative auto-ethnographic approach where data is collected from the facilitator's personal diary, observations, participants' comments, and assessments furthermore, this study offers a more objective perspective and embraces descriptive quantitative methods to analyze the results of formative quizzes and the final summative assessment. This approach aims to emphasize the importance of integrating AI within a comprehensive and humanistic framework, avoiding its random use and ensuring alignment with student-centered principles.

Keywords: ChatGPT, FIRST-ADLX Framework, active deep learner experience, technology integration in education, responsible ethical ai use, language learning outcomes, humanistic education, AI tools

1. Introduction

Technology nowadays encompasses almost all areas of society, and education is not an exception. Educational systems around the globe are including digital skills in their curriculum and evaluation processes (Siddiq et al., 2016; Scherer et al., 2019). In this era of technological advancement, artificial Intelligence which is defined a technology that leverages algorithms to make predictions, diagnoses, recommendations, and decisions, Chen et al. (2022) have developed a growing interest among educators worldwide in its ability to support learning in different contexts. This interest stems from AI's ability to demonstrate various technological advances, theoretical innovations, and successful pedagogical impact (Roll & Wylie, 2016). AI was recognized for its potential to support learners and educators by providing digital tutors to offer content, provide feedback, and supervise progress (Bayne, 2015).

Consequently, different types of AI applications are used today in learning and teaching various subjects and skills

including different language skills. Dodigovic (2005) argues that adult learners can achieve competency in English as a second language when their particular errors are continuously corrected in a way that suits their preferred learning method. He also explains that artificial intelligence can be used as a solution to speed up the process of language acquisition and produce favorable results. On a parallel track, Haristiani (2019) explores and analyzes the various types of chatbots used as language learning tools to conclude that chatbots are one particular innovation that shows promise for language acquisition because they can operate as independent learning tools as well as tutors for language practice. Haristiani's study shows that language learners indicate interest in utilizing chatbots because of their accessibility and ease, and they show higher confidence in using chatbots to learn languages than they do in face-to-face interactions with human tutors.

However, despite the fact that "AI applications have been tested successfully, sometimes no advantage of using the tool over conventional teaching was noticed" (Sidana, 2019, p. 1). As a result, considerable research has investigated the factors that enable the proper inclusion of this technology and focused on the teacher's ability to integrate and use technology effectively to assist and assess learning.

With the emergence of AI, many educators are afraid of two possibilities: either losing their jobs to machines or leaving their students susceptible to addiction to AI and passive learning. As a result of these fears, numerous educators have expressed concerns about utilizing AI in education, particularly stemming from the belief that AI can stifle creativity, encourage laziness, and have a negative impact on critical thinking, problem-solving, communication, and analytical skills among learners (Plucker, Dornsife, & Park, 2021)

AI, like any other tool, can be beneficial in facilitating learning once integrated within FIRST-ADLX Framework. Consequently, exploring the effectiveness of such integration can both redeem educators' concerns about incorporating AI in education and diminish their fear of losing their jobs to machines. Preventing students from using AI is impossible, and integrating it is crucial. Learning why, how, when, and where to use AI in education is inevitable and requires research and experimentation, to which this paper contributes.

As a result, considering all these concerns, this paper investigates the potential benefits of integrating AI within FIRST-ADLX Framework to facilitate Active Deep Learner eXperiences for all students. The study aims to determine the rationale, methods, timing, and context for using AI in education through research and experimentation.

2. Literature Review

2.1 ChatGPT: Background Information

The ChatGPT language model was first developed by OpenAI in 2018. It was trained on a large corpus of internet text data using profound learning techniques so that it becomes capable of generating text that closely resembles human writing. The initial GPT model was followed by an improved version, GPT-2, before introducing GPT-3 in 2020. GPT-3 is capable of performing various natural language processing tasks, including translation, paraphrasing, summarizing, questioning, answering questions, outlining, and text generation. A specific variant of ChatGPT has been designed and optimized for conversational tasks and tailored for applications that involve dialogue, such as chatbots (Rudolph et al.,2023; Mhlanga, 2023).

Since its release in November 2022, ChatGPT has quickly gained popularity, amassing over one million subscribers within a week. Its advanced capabilities, such as writing articles, stories, and essays, providing summaries, adjusting perspectives, and even writing computer code, have captured widespread attention in social media and news outlets. These extraordinary abilities within the field of education have generated mixed feelings among educators. While some view ChatGPT and generative AI as the future of teaching and learning (Baidoo-Anu & Ansah, 2023), others express skepticism, perceiving them as potential threats that could diminish educational activities and hinder analytical abilities (Wang, 2023). The question of whether ChatGPT and generative AI are beneficial or detrimental to education remains a topic of debate. Co-authored discussions explore the benefits and drawbacks of using ChatGPT and generative AI in teaching and learning, shedding light on their implications for educational practice (Baidoo-Anu & Ansah, 2023).

2.2 Benefits of ChatGPT in Education

The integration of ChatGPT and other generative AI in education has brought about a significant paradigm shift, with educators exploring its potential implications. ChatGPT, in particular, can be utilized in various ways to enhance learning, whether by students or by teachers.

In recent years, there has been growing interest in the educational potential of generative model-based conversational agents, such as ChatGPT. Educators have started recognizing the effectiveness of ChatGPT, leveraging its capabilities to automate tasks like making exams and material creation, thereby freeing up time for increased student engagement (Alshater, 2022; Terwiesch, 2023). Johnson et al. (2016) explains that being trained on bilingual sentence pairs, ChatGPT achieves advanced results in language translation tasks, thereby increasing accessibility to educational materials across different languages (Alshater, 2022; Terwiesch, 2023). Kim et al. (2019) claim that ChatGPT, which is initially trained on

human-graded essays, exhibits a high correlation of 0.86 with human grades, making it a reliable tool for grading high school students' essays.

Moreover, Herft (2023) highlights its role in supporting pedagogical practices, such as creating prompts and rubrics aligned with learning goals and providing formative assessments. These findings, as cited in (Baidoo & Owusu, 2023). underscore the potential of ChatGPT to enhance instructors' evaluation capabilities, foster collaboration among students, and provide experiential learning opportunities.

In short, by harnessing the power of ChatGPT, instructors can augment their evaluation capabilities, promote collaboration among students, and create more engaging and immersive learning experiences (Mhlanga, 2023).

Students can also benefit from incorporating ChatGPT into educational settings. Chen et al. (2020) argue that ChatGPT has the potential to offer personalized math tutoring which leads to improved learning outcomes. Furthermore, Peng et al. (2019) explain that generative model-based conversational agents can support English language learning and enhance proficiency among second language learners. Similarly, Chiang et al. (2021) demonstrate that an adaptive learning system based on ChatGPT effectively supports students in learning programming and improves their performance on programming assessments. Moreover, students can utilize ChatGPT as a virtual tutor to receive explanations and support in comprehending complex concepts, particularly benefiting non-native speakers and students with language disabilities (as cited in Baidoo-Anu & Ansah, 2023).

By integrating ChatGPT into educational settings, there is an opportunity to enhance learner experiences. This integration can foster the development of critical thinking and problem-solving skills while also addressing biases and discrimination. Additionally, ChatGPT can be leveraged to develop innovative teaching approaches, increase student engagement and collaboration, and promote hands-on experiential learning (Mhlanga, 2023). Figure 1 illustrates the benefits of ChatGPT in education, to students and teachers, as presented in the literature review.

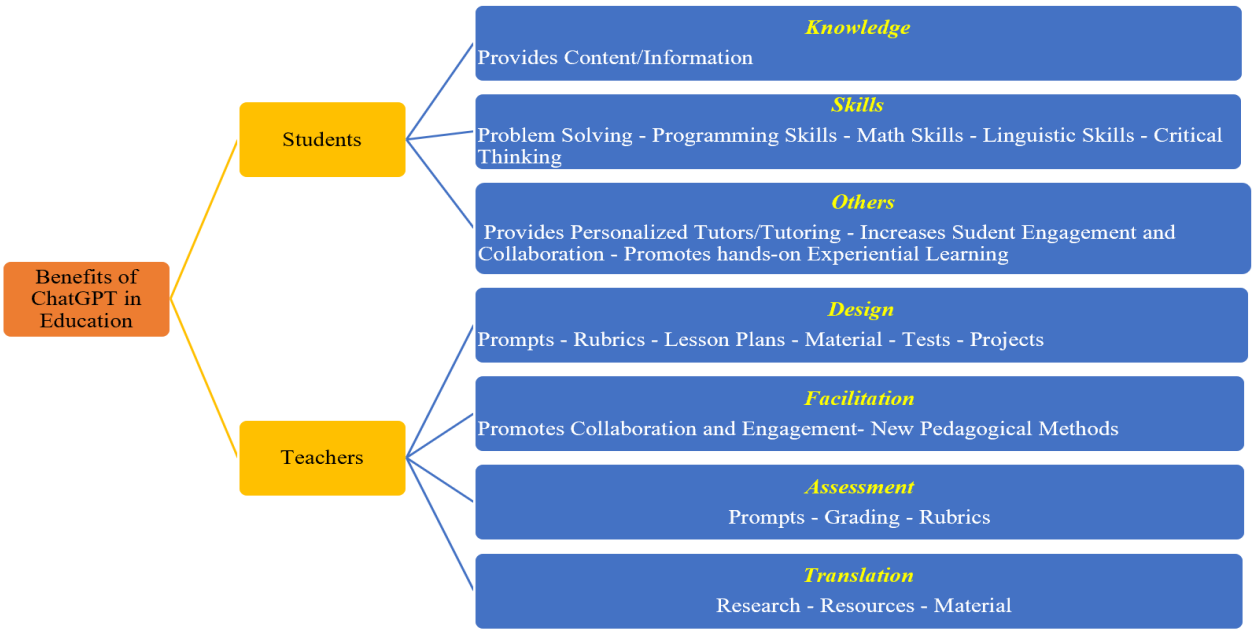

Figure 1. Benefits of ChatGPT in Education

2.3 Drawbacks and Ethical Considerations

When incorporating ChatGPT and similar generative AI models in education, it is important to consider the drawbacks supported by research studies. D'Mello et al. (2014) highlight the disadvantage of limited human interaction, which may be detrimental to students who thrive on personal connections with teachers. Wang et al. (2020) point out that generative models often struggle to provide tailored explanations or feedback to individual students due to their limited understanding. Bolukbasi et al. (2016) warn that if the training data used for these models contains biases, the models may exhibit similar biases, potentially impacting tasks like essay grading. Furthermore, Ziegler et al. (2019) note that generative models' responses may be constrained by patterns in their training data, limiting creativity and originality. The quality and relevance of the training data significantly influence the performance of generative models (Kocaguneli et al., 2019), and Gao et al. (2019) emphasize that the lack of contextual understanding in these models can lead to inappropriate or irrelevant responses. Ribeiro and Vala (2020) raise concerns about the limited ability of generative AI models to personalize instruction and the associated privacy and data security issues. Responsible usage involves integrating these

models alongside human instruction and support (Ribeiro & Vala, 2020). However, it is important to note that ChatGPT has inherent limitations, as highlighted by Qadir (2023), who mentions issues with accuracy and reliability, including the generation of references to non-existent works (as cited in Baidoo-Anu, & Ansah, 2023).

Besides its drawbacks, the use of ChatGPT in educational settings raises concerns about ethical and responsible practices. Its advanced AI capabilities have the potential to perpetuate biases and discrimination, resulting in unequal and unfair learning experiences. There is a risk of excessive reliance on AI-generated responses impeding students' critical thinking skills Baidoo-Anu and Ansah (2023) and promoting dependency. The drawbacks and concerns are briefly visualized in table1.

Table 1. Drawbacks and Concerns of ChatGPT in Education

Drawbacks and Concerns of ChatGPT in Education	Limited Human Interaction
	Lack of Tailored Explanation and Feedback
	Biases in Training Data
	Constraints on Creativity and Originality
	Impact of Training Data Quality
	Lack of Contextual Understanding
	Limited Personalization and Privacy Concerns
	Ethical Concerns and Dependency

2.4 FIRST-ADLX Framework

FIRST-ADLX Framework's Bahgat et al. (2018) is a comprehensive, holistic, learner-centered approach to learning which incorporates various models and strategies including gamification and game-based learning, experience economy, and neuroscience It draws inspiration from experiential learning by Kolb (1984) and John Dewey(1916; 1938), cooperative learning by Kagan (1994), Carl Rogers' facilitation skills (1951), Roy's 6Ds and learning transfer, and positive psychology principles (2006). All these theories and models are incorporated together and developed to create an Active Deep Learner eXperience. (Bahgat et al., 2017), in which *our experiences, thoughts, emotions and environment, impact the* learning process (Dewey, 1983; Kolb, 1984), teamwork and active contributions are fostered (Kagan, 1994), teachers are facilitators of learning (Roger, 1951), and learning is relevant, practical, and related to real-life situations (Roy, 2006).

Furthermore, the Framework is influenced by the spirit of group coaching and focuses on promoting deep change and future-oriented development. While its second domain (Interacting within Positive Group Dynamics) fosters group work and peer tutoring, its fifth domain (Transforming Learning into Performance) focuses on providing the learners with the tools and skills needed to transform the abstract knowledge into concrete real-life performance. Aiming at transforming learning into performance, c is continuously being improved upon through research and experience in the learning and development field. The five domains and the fifteen principles of the Framework build upon each other and work together to form an impactful Active Deep Learner eXperience (Bahgat et al., 2017). Importantly, the FIRST-ADLX Framework is designed to be adaptable and can be applied to learners of various age groups.

2.4.1 The Five Domains and the Fifteen Principles of FIRST-ADLX Framework

The five domains of FIRST-ADLX Framework function as sequential layers. Each domain builds upon the other and expands its scope. They are interconnected and work together to create an Active Deep Learner eXperience.

2.4.1.1 Focusing on Learner Behaviour Domain

Focusing on Learner Behaviour Domain consists of three main principles: Individualization, Probing and Assessing, and Trust the Learner. FIRST-ADLX Framework emphasizes the importance of individualizing the learning experience for each learner and considering the individual unique needs and wants. This domain builds on facilitation theory and adult learning theory by encouraging educators to provide the learners with diversified opportunities to share their previous experiences and use them to construct their own learning. Individualization aims to make the learning experience more intimate and personal by building a direct relationship with each individual. The designer's role is to include activities that cater to individual needs and makes sure every single learner lives his unique Learner eXperience (without ignoring the target learning outcomes. (as cited in Bahgat et al., 2018)

Probing and Assessing is an integral principle in this domain, where the facilitator continuously monitors the learners' progress, provides feedback, and identifies gaps in understanding and misconceptions that may hinder new learning. An effective probing and assessing happens only in safe learning environments, as learners should feel comfortable trying new things and learning from their mistakes (Bahgat et al., 2018).

Trusting the learner is another principle highlighted in this domain. Adults prefer to use their existing knowledge and experience to apply it to new learning experiences. Consequently, facilitators are encouraged to pull appropriate content from learners and allow them to take partial control in order to freely participate in activities. Trusting the learners and valuing their participation fosters positive engagement and improves the transfer of learning. Overall, these strategies contribute to creating an Active Deep Learner eXperience (Bahgat et al., 2017).

2.4.1.2 Interacting Within Positive Group Dynamics

In the domain of Interacting within Positive Group Dynamics, FIRST–ADLX Framework emphasizes the importance of group dynamics and cooperative learning in fostering meaningful interactions among learners (Bahgat et al., 2017). This domain aims to create unique group experiences for each learner, recognizing that the same learner may have different experiences depending on the group they interact with (Liasidou, 2016 as cited in Bahgat et al., 2018). The interaction of classmates and social groups has a significant impact on students' experiences, as it helps individuals become aware of their knowledge limits and evaluate the prospects of transferring knowledge to new situations (Merriam & Leahy, 2005 as cited in Bahgat et al., 2018).

Creating a social event, one of the principles of this domain, within the learning environment is crucial for establishing a sense of community among learners (Reder & Klatzky, 1994 as cited in Bahgat et al., 2018). Learning is fundamentally a social activity, and when the class becomes a community of learners, it enhances engagement and collaboration (Svinicki, 2004 as cited in Bahgat et al., 2018). Cooperative learning promotes effective learning outcomes and team productivity, compared to competitive learning (Andritsakou & Kostara, 2016 as cited in Bahgat et al., 2018), and group works and facilitation of learner engagement contribute to a greater learning experience (Barnett & Ceci, 2002; Nicholson, 2012 as cited in Bahgat et al., 2018).

Positive Spirit principle is also integrated within this domain, as facilitators are encouraged to provide positive constructive feedback that motivates learners and fosters a sense of belonging (Anderson & Brocket, 2008 as cited in Bahgat et al., 2018). Facilitator-learner positive interactions, insights, and a sense of humor contribute to the learner experience and create a joyful learning environment (Anderson & Brocket, 2008 as cited in Bahgat et al., 2018).

Attention and Motivation is the third principle in this domain. Facilitators use strategies to raise learners' attention levels and re-engage them when focus is lost (Keller as cited in Bahgat et al., 2017). Because motivation sustains impactful learning, learners should be motivated throughout the entire learning journey (Sogunro, 2015 as cited in Bahgat et al., 2018). Increasing learner attention and motivation leads to better learning experiences and successful transfer of learning (Davachi et al., 2010; Merriam & Leahy, 2005 as cited in Bahgat et al., 2018)

2.4.1.3 Reviewing Activities Within RAR

The Framework introduces the RAR model (**R**eadiness increase, **A**ctivity facilitation, **R**eviewing actively) to enhance the learning experience by focusing on participants' readiness, facilitating engaging activities, and conducting active reviews (Bahgat et al., 2018).

Readiness Increase focuses on preparing learners to actively participate in the activity by enhancing their attention and engagement. Educators should create an encouraging learning environment that aligns with the intended learning outcomes. Strategies for promoting readiness include providing clear instructions, preparing necessary tools, incorporating gradual activities, and addressing emotional and mental readiness (Bahgat et al., 2018).

Activity Facilitation involves the educator's significant role in guiding and supporting the group during the activity. The facilitator’s role aligns with Hazzan, Lapidot, and Ragonis' (2011) recommendation of circulating between different groups, providing guidance and assistance when necessary. Hazzan et al. (2011) also stress that the facilitator’s guidance should empower students to take ownership of their learning and discover answers independently, while ensuring inclusivity and respecting diverse perspectives (as cited in Bahgat et al., 2018).

The Reviewing Actively principle emphasizes the importance of active reviewing to facilitate meaningful learning after engaging in an activity. The Greenaway debriefing model, as reviewed by Nicholson (2012), provides a four-stage sequence for active reviewing: reflecting and discussing the activity, expressing emotions, examining the experience holistically, and exploring connections to the real world. Schoel, Prouty, and Radcliffe's (1988) debrief question clusters (What? So What? and Now What?) can be integrated into the reviewing process to guide learners in constructing meaningful learning through answering and discussing guided questions. Debriefing activities, supported by Pivec (2011) and Nicholson (2012), contribute to the effectiveness and success of the learning experience, allowing learners to integrate their gained experience with concepts and applications that can be transferred beyond the classroom setting (as cited in Bahgat et al., 2018).

2.4.1.4 Sequencing Activities

In this domain, the focus is on creating a complete and engaging learning experience for participants. The sequencing of activities and the day flow is designed to keep learners fully engaged and in a state of "flow," drawing inspiration from the elaboration theory of Reigeluth and the flow theory of Csikszentmihalyi. The goal is to ensure that learners are absorbed and fully involved in the activities, leading to optimal experiences where they are deeply engaged and focused on their goals (as cited in Bahgat et al., 2018).

The Structuring and Sequencing of learning activities is a crucial principle in this domain, as it influences information processing and retention. Supported by Toohey (1999), Cooley and Glaser (1969), Weisgerber (1971), and Liasidou (2016), FIRST-ADLX emphasize that structured and sequenced learning and experience activities can enhance transfer of learning, increase motivation, improves total immersion of the learner in the experience, and in turn create an Active Deep Learner eXperience (as cited in Bahgat et al., 2018).

Repetition plays a crucial role in helping students bridge gaps in their understanding and create stronger connections between concepts. In the context of FIRST-ADLX Framework, we propose that educators can employ enjoyable repetition techniques to prevent student boredom while actively reinforcing learning. In other words, Repetition without Boredom, which is one of the principles of this domain, is essential if we are to create an Active Deep Learner eXperience. On a similar track, Davachi et al. (2010) also suggested the use of spaced repetition, which involves repeating new information in a spaced manner, as an effective method for building long-term memory (as cited in Bahgat et al., 2018).

Linking and Summarizing is a principle that involves educators summarizing learning outcomes and concepts while also connecting participants' comments to different parts of the learning day. This approach helps learners perceive knowledge as organized and interconnected, facilitating their retention, and understanding of the overall learning experience. Consequently, educators are encouraged to facilitate content summaries and prompt learners to summarize what they have learned, providing an overview of previously covered material at the end of each lesson (Bahgat et al., 2018).

2.4.1.5 Transforming Learning into Performance

This domain emphasizes the importance of transforming learning into action, with a particular focus on initiating the transfer within the training room itself. The three principles of this domain (Reflection on Reality, Practicing and Experiencing, and Continuity and Follow Up) advocate for incorporating activities and actions during the training that enable learners to actively engage with the practice and facilitate the learning transfer process. The domain also recognizes the significance of follow-up and mentoring phases that may occur after the training, supporting learners in applying their newly acquired knowledge and skills.

The primary aim of activities in FIRST-ADLX Framework is to encourage learners to reflect on their current reality, considering both past and future contexts. It is essential for these activities to be relevant to the learners' specific circumstances, prompting them to propose ideas for enhancing their practice. Reflection on Realitycontributes to a more active and profound learning experience for the participants.

Practicing and Experiencing the learned knowledge and skills during the learning session is crucial for learning to occur (Rosenshine 2012 as cited in Bahgat., et al., 2018). To FIRST-ADLX Framework educators, transfer of learning occurs when learners have authentic opportunities to practice what they have learned and receive direct feedback (Salas and Cannon-Bowers 2001as cited in Bahgat., et al., 2018).

Continuity and Follow-up is one more crucial principle in this domain. Extending beyond the classroom setting, educators need to create a space for learners to consider how they can continue their learning, develop action plans, identify resources, and acquire additional knowledge. These plans engage learners both cognitively, by understanding concepts and relationships, and behaviorally, by describing the actions they need to take and evaluating their impact in real-life situations. By planning action at the end of a learner experience, educators can enhance the transfer of learning (Merriam and Leahy, 2005 as cited in Bahgat., et., al.,2018).FIRST-ADLX Framework comprises five domains, each consisting of three principles that intertwine and complement each other to foster an Active Deep Learner eXperience. The figure below illustrates the domains and principles of FIRST-ADLX Framework as illustrated by Bahgat et al. (2018).

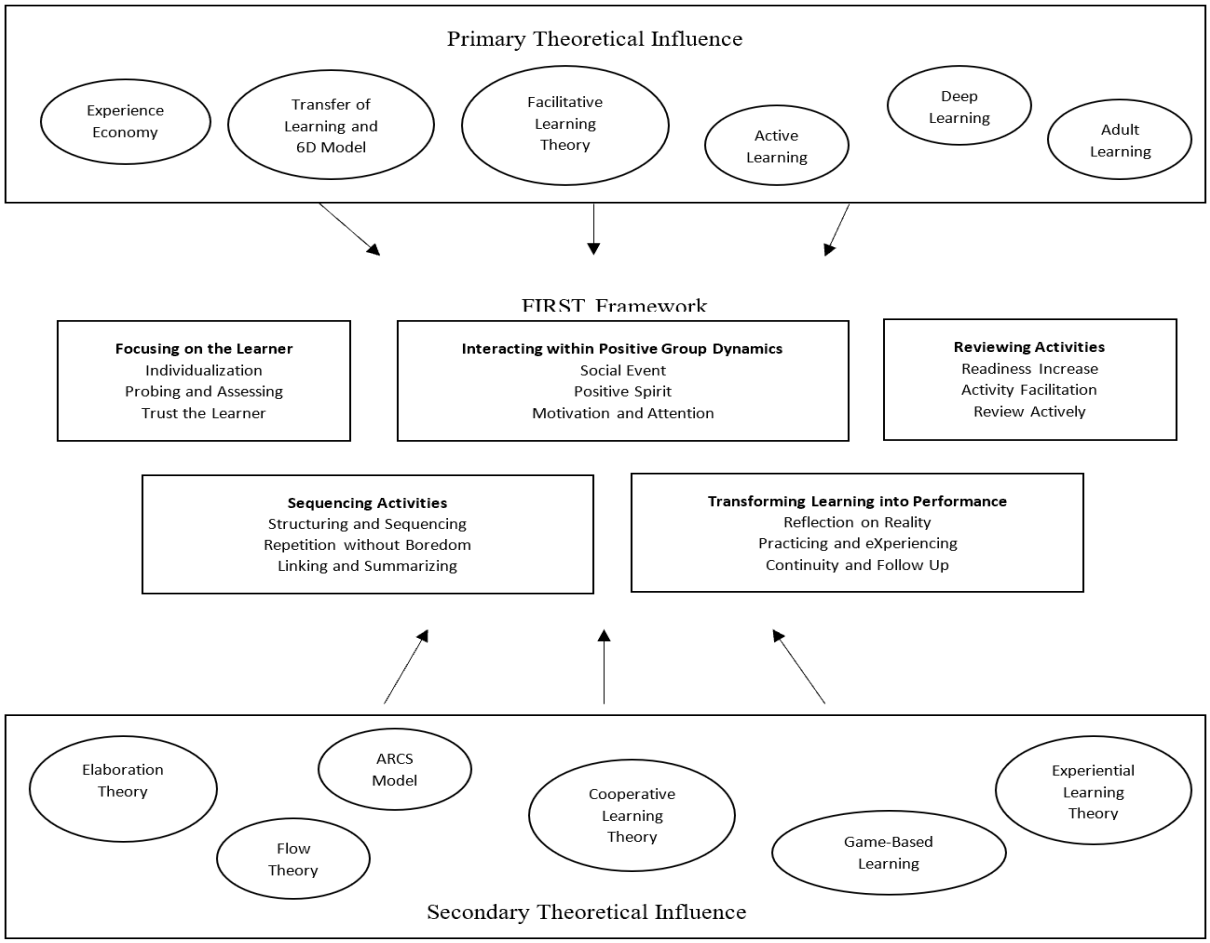

Figure 2. FIRST-ADLX Framework (Bahgat et al., 2018)

2.5 Teacher's Role and Learner's Role

FIRST-ADLX Framework recognizes teachers as facilitators and coaches of the learning process, with the crucial task of achieving a balance between two key concepts: "pull" and "push." The facilitator engages in "pulling" by providing opportunities for learners to share their experiences, knowledge, feelings, insights, and examples, enriching the learning experience for everyone involved. They also engage in "pushing" by offering new information, instructions, encouragement, or necessary support to help learners to complete tasks or acquire knowledge. This balance between "pulling" and "pushing" involves a deliberate approach to adaptively employ both strategies as needed. Apart from these fundamental tasks, facilitators have a wide range of responsibilities. They monitor individual learners, consider their unique needs, create a safe and supportive learning environment, promote positive interactions among learners, sequence activities in a logical and seamless manner, facilitate reflection and the practical application of knowledge, encourage learners to express their thoughts and ideas, assess learner progress, and provide constructive feedback. Facilitators take a holistic view of the entire learning journey, considering all the touchpoints learners encounter, including people and resources. This approach is crucial for creating an Active Deep Learner eXperience that is customized to meet the specific needs of each individual learner throughout their journey.

As for the learner's role, FIRST-ADLX Framework prioritizes the individual learner, acknowledging their uniqueness and personal learning journey as well as the active role of the student. This involves considering factors such as the learner's learning pace, specific needs, challenges, prior knowledge, emotions, and past experiences. By closely observing learners' behaviors throughout the journey and incorporating this understanding into the design of learning sessions, the Framework aims to create a tailored and personalized learning experience for each individual. The Framework recognizes learners as valuable contributors to the overall learning experience and ensures that their contributions are valued and respected (Bahgat et al., 2017).

2.6 Teacher-Learner Rapport

In FIRST-ADLX Framework, the teacher is not seen as the sole provider of learning, but rather as a facilitator and a

coach of the learner experience. This means that the teacher's role is to create a supportive and engaging learning environment where learners actively participate and contribute their experiences, knowledge, and insights. The facilitator-learner relationship is built on mutual respect and collaboration, resembling a family-like relationship.

Within this Framework, positive constructive feedback is a crucial element. The facilitator provides feedback to learners in a supportive and non-judgmental manner, focusing on strengths and areas for improvement. This feedback is essential for learners to reflect on their progress, identify their learning needs, and make necessary adjustments in their learning journey. The facilitator acts as a guide and coach, offering guidance, encouragement, and inspiration much like a supportive family member would.

The rapport between the facilitator and learner is characterized by trust, openness, and a sense of belonging to a family. Learners feel comfortable to express their thoughts, ask questions, and take risks in their learning (by trusting the learning and the open space helps the learners to go beyond the designed activities specially in the asynchronous, and AI related tracks, then the role of the teacher is more into being a coach to inspire, encourage and help the learner to reflect and learn from this opportunity). The facilitator creates a safe space where learners can freely share their ideas, engage in meaningful discussions, and learn from one another.

Overall, the facilitator-learner relationship is based on mutual respect, trust, and support, creating an environment that fosters active engagement, deep learning, and personal growth.

2.7 FIRST-ADLX Framework in Schools

FIRST-ADLX Framework was implemented in many schools and its impact on teachers, learners, parents, and administrators was measured. The major findings revealed that teachers found the Framework comprehensive and applicable, with immediate application of its principles and strategies in their classrooms. Student feedback and overall learning experiences were also improved, leading to some schools adopting FIRST-ADLX Framework in their daily teaching practices. The figure below demonstrates the influence of FIRST-ADLX Framework on 107 participants after a teacher professional development program from eight different countries; Kyrgyzstan, Indonesia, Lebanon, Tanzania, Malaysia, India, Palestine, Yemen (Bahgat et al.2020).

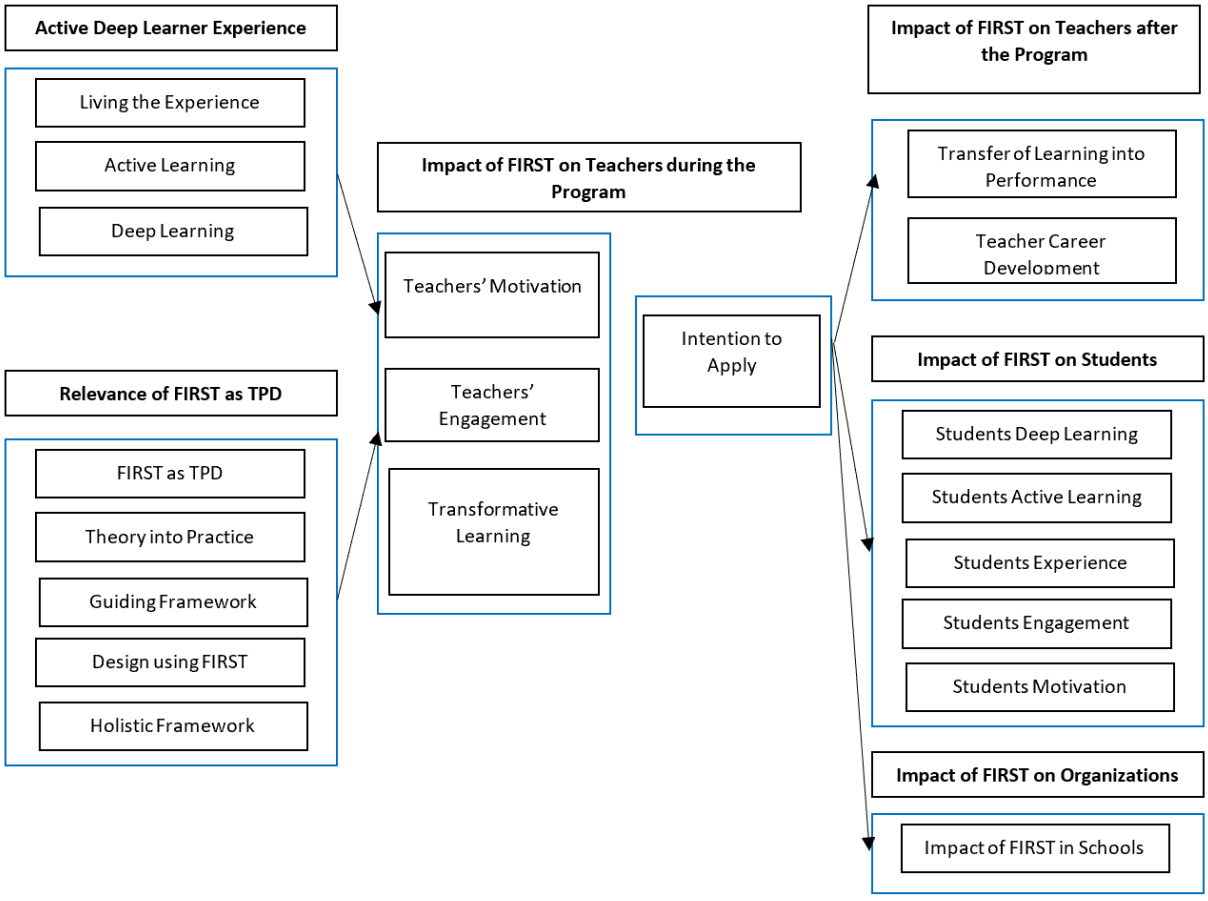

Figure 3. FIRST-ADLX Framework Impact Map V1 (Bahgat et al., 2020)

3. Methodology

3.1 Research Design

This study adopts a qualitative approach, specifically auto-ethnography, to examine the attitudes of both the facilitator and learners in a learning journey where FIRST-ADLX Framework and ChatGPT are integrated. Qualitative methods are preferred for research questions that focus on understanding human interactions and social phenomena, as they require careful observation and analysis of people in their natural settings (Lichtman, 2012). Auto-ethnography, as described by Méndez (2013) and Ellis and Bochner (2000), involves analyzing personal experiences and connecting them to broader cultural contexts. In the field of education, self-analysis resulting from auto-ethnographic research can have meaningful implications for teacher and school leader preparation (Starr, 2010). Furthermore, the study provides a more objective viewpoint and employs a descriptive quantitative approach to examine the outcomes of formative quizzes and the ultimate summative assessment to validate qualitative research outcomes.

3.2 Learner Persona and Context

The participants in this study are twenty-nine graders (14-year-old teenagers) who are studying English as a second language in a private Lebanese school. The school follows a curriculum where English is taught intensively, with five English classes per week. Additionally, subjects such as science and math are instructed in English, further immersing the students in the language.

The participants are “digital natives”, who are all as defined by Prensky (2001) “native speakers” of the digital language of computers, video games and the Internet (Prensky, 2001, p. 1). In fact, they have demonstrated remarkable initiative by independently discovering and learning about ChatGPT even before their teachers. They were enthusiastic about its capabilities and began utilizing it in their language learning endeavors ahead of their facilitators’ introduction to the tool. Their early adoption and utilization of ChatGPT exemplify their proactive approach to integrating technological resources into their language learning process. This highlights the significance of incorporating technology that resonates with the interests and preferences of the students, promoting their active engagement and motivation in language acquisition. Figure 4 illustrates the learner persona of the target group of learners, as observed by the researchers based on the learners' actions and comments.

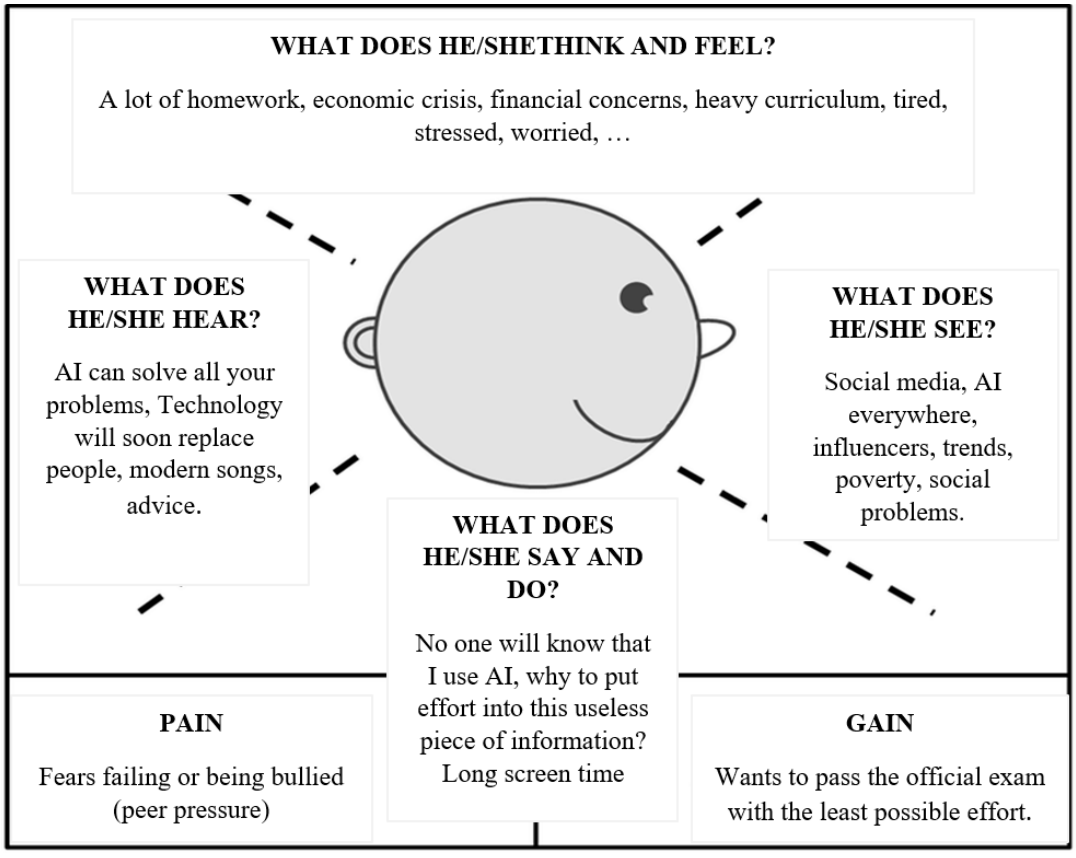

Figure 4. Learner Persona

3.3 Research Questions

MjRQ: Can ChatGPT be effectively integrated within FIRST-ADLX Framework to enhance the learners' engagement, language learning outcomes, and development of ethical and responsible AI use in an English as a second language class?

MinRQ1: How does the capacity of FIRST-ADLX Framework to incorporate the latest technology, such as ChatGPT, contribute to facilitating an Active Deep Learner eXperience in the English Class?

MinRQ2: What impact does the use of FIRST-ADLX Framework to embed ChatGPT have on learners' engagement, participation in language activities, and overall motivation in the English Class?

MinRQ3: How does the integration of ChatGPT within FIRST-ADLX Framework promote responsible and ethical AI use in the English language class?

MinRQ4: To what extent does this embedment contribute to students' language acquisition, as measured by both test results and other qualitative indicators?

3.4 Data Collection Method

This study predominantly relies on qualitative data collection methods, with supplementary quantitative data gathered through student assessments. On the qualitative side and since traditional ethnography relies heavily on data sources like interviews, observations, and document analysis (Mayan, 2001; Morse & Richards, 2002 as cited in Wall, 2008), this study collects data using the researcher's personal diaries, student feedback, and self-reflection. Students' voices took center stage, and their end-of-class testimonials, both oral and written, explored their experiences, and learnings, and envisioned future applications of the acquired knowledge. These testimonials along with the researcher's own reflections and observations were documented in a personal diary after each session. While autoethnographic research typically leans qualitative, this study offers a more objective perspective and embraces descriptive quantitative methods to analyze the results of formative quizzes and the final summative assessment.

Figure 6 depicts the diverse data sources: four quizzes targeted specific domains like vocabulary, reading comprehension, grammar, and an oral presentation addressing the unit's central question, while the summative assessment employed three distinct parts – reading comprehension, grammar, and writing. This comprehensive approach ensured a multifaceted understanding of the learning journey within the unit.

Consent for data collection has been obtained from students' parents and the school administration. It has been clearly elaborated in Figure 5 that the data will be utilized for research purposes.

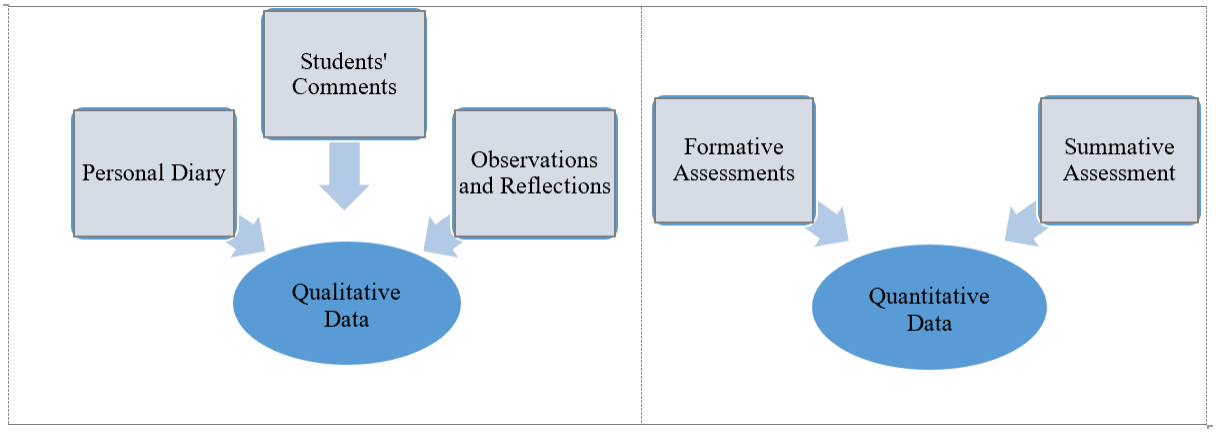

Figure 5. Data Collection Methods

3.5 Typical Facilitation Approach in the Context of the Study

In my context, we follow a thematic framework that spans across one to two weeks. To begin, we present a thought-provoking question that is closely tied to the theme. We then engage the students by sharing two brief videos, serving as an introduction and a starting point. After each video, the students are encouraged to contribute their thoughts, experiences, and insights.

Next, we introduce vocabulary relevant to the theme using visual aids, such as pictures and accompanying sentences. Through this approach, students are prompted to analyze the context and infer the meanings of the words. Subsequently, we guide the learners through a reading activity that involves comprehending a text and answering various comprehension questions.

In our grammar sessions, we utilize videos to present the rules, enabling students to deduce the grammatical concepts

themselves. This is followed by practice exercises that focus on applying the grammar rule within the context of individual sentences.

For writing classes, students are prompted to gather ideas related to the theme and present them, fostering an environment that encourages further information exchange. They are then provided with a sample essay, enabling them to deduce the structure and characteristics of the target genre. This serves as a foundation for writing their own essays. Finally, students use a rubric to self-assess, proofread, and edit their essays. This is the instructional approach typically employed to teach the four skills in the context of the study. As for how ChatGPT was incorporated into the lesson plans, ChatGPT was used in different lesson plans throughout the week and to serve multiple purposes including introducing new vocabulary, enhancing reading comprehension, improving speaking abilities, teaching grammar rules, and aiding in the development of my students' writing skills. Figure 6 visualizes the typical flow of learning in our context.

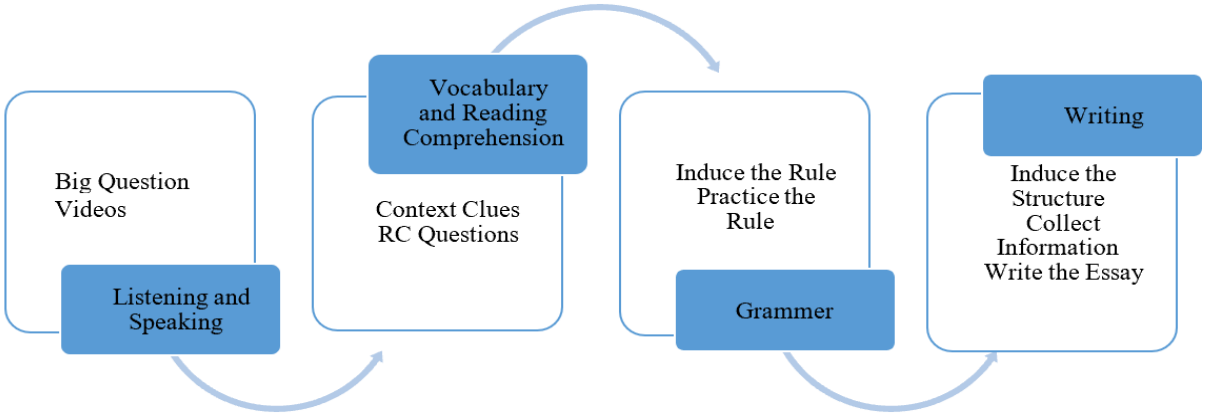

Figure 6. The Typical Facilitation Approach

3.6 Description of ChatGPT Integration within FIRST-ADLX Framework

3.6.1 Designing the Learning Journey

As a FIRST-ADLX Framework educator, the researcher harnessed the power of ChatGPT as a versatile tool and integrated it into the learning journey using FIRST-ADLX Framework. This framework allowed the designing of engaging and effective lessons to teach various language skills to my grade nine students.

The unit the researchers experimented with focused on using language to raise awareness about environmental problems caused by human activities. In this unit, the parallel learning outcomes emphasized critical thinking and collaboration, while the performance outcome targeted persuasive writing skills.

Throughout the lesson plans, the parallel learning outcomes and performance outcomes remained consistent, while the main learning outcomes varied based on the skill being taught. In alignment with the main learning outcomes, the following parallel outcomes and performance outcomes were emphasized:

By the end of the theme, my learners will be able to:

Table 2. Learning Outcomes

K (Knowledge)	S (Skills)	A (Attitudes)	Performance Outcomes
Tell how ChatGPT can be utilized as a tool to enhance vocabulary acquisition. Develop an understanding of environmental problems, their causes, and their impact on individuals, communities, and the planet. Recognize the interconnectedness of environmental issues on a global scale and understand the role of individuals in promoting positive change.	Utilize AI technology, such as ChatGPT, to support their language learning. Develop practical skills in effectively navigating and engaging with AI tools to improve their language proficiency. Analyze and evaluate potential solutions to environmental problems, considering their feasibility, effectiveness, and long-term sustainability. Apply problem-solving skills to propose innovative and practical solutions to environmental challenges.	Develop an appreciation for the responsible and wise use of technology. Recognize the importance of utilizing AI tools like ChatGPT as a means to enhance their learning experience while maintaining critical thinking and discernment. Cultivate empathy towards the natural world and develop a sense of responsibility for its preservation and protection.	Effectively navigate and leverage AI technologies as a valuable learning resource Advocate for environmental awareness and action, inspiring others to make informed choices and contribute to a sustainable future. Collaborate with peers, community members, and organizations to address environmental problems and promote environmental stewardship. Develop resilience in the face of environmental challenges, adapting and responding to changes with determination and a positive mindset.

By incorporating these parallel learning outcomes and performance outcomes into the journey's design, the researcher aimed to cultivate a holistic approach to language education that can empower students to leverage technology intelligently and responsibly in their language learning endeavors.

3.6.2 The Journey's Flow

3.6.2.1 Teaching Vocabulary

Instead of the learners simply looking at pictures, reading sentences, and guessing meanings, a 55-minute session was implemented inspired by FIRST-ADLX Framework's learning and experience activities. The main learning outcomes included knowledge of vocabulary, the ability to contextualize words in meaningful sentences, and the development of enjoyment and enthusiasm for learning new words.

The experience started with a pre-class task where students interacted with ChatGPT to generate contextualized sentences for the target vocabulary. Then, the session began with a brief opener to address any challenges encountered during the pre-class task. For the first learning activity (RAR Activity) learners worked in groups of four to share and organize the generated sentences. They grouped them under the respective target words, inferred the meaning of the words using context clues, and shared their findings with the rest of the class. Facilitation and monitoring were carried out throughout the activity to ensure effective time management and active participation. Following the group presentations, discussions were encouraged to reach a consensus.

The next RAR activity prompted learners to construct their own paragraphs using the vocabulary they had learned, share their work, verify the accurate usage of the chosen words, and receive, and provide positive and constructive feedback. The session concluded with a closure activity, allowing learners to express their feelings about the day's activities and compare them to their previous experiences of learning vocabulary through different methods. This provided an opportunity for personal reflection and the sharing of insights among the group.

To assess their acquisition of the target thematic vocabulary, students completed a formative quiz the following day. This quiz required them to define five keywords, construct sentences using those words, and contextualize others by writing their own original sentences. Figure 7 illustrates the results of this quiz.

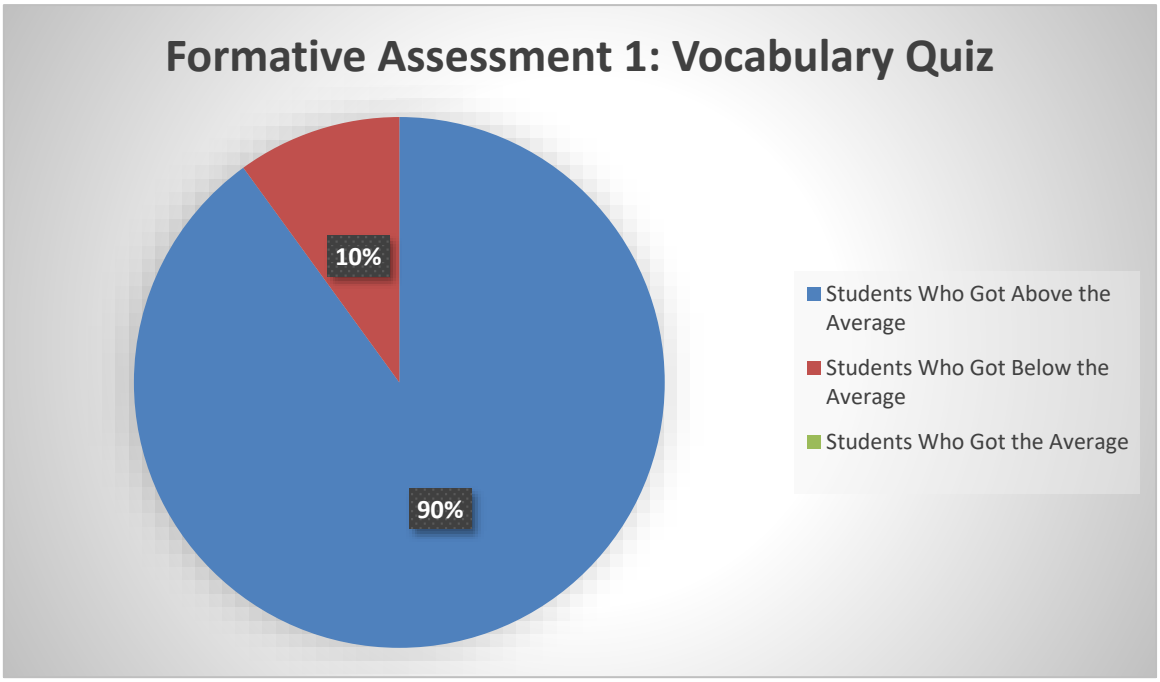

Figure 7. Formative Assessment 1: Vocabulary Quiz

3.6.2.2 Enhancing Reading Comprehension Skills

Instead of instructing learners to read a text and intermittently pause to ask questions about its content, structure, or vocabulary, a 55-minute session was devised guided by FIRST-ADLX Framework's learning and experience activities. The session aimed to achieve specific learning outcomes, including reading a text about an environmental problem with proper fluency and accuracy, improving problem-solving abilities, and answering different why-questions.

It started with a pre-class task where students were assigned distinct parts of a five-paragraph text and requested questions related to their assigned parts from ChatGPT. During the opener, students shared challenges they encountered while generating questions and potential solutions. The first RAR Activity involved students in group work, and students worked together to share questions, answer them, and help each other read the text accurately. For the "reviewing actively" stage, reflection was fostered using the What? So What? Now What? model.

For the second RAR activity, new groups were formed based on the parts of the text students had worked on. Students shared their work, received peer feedback, and got engaged in active reviewing and discussion.

The session ended with students describing their experience and overall impression using one word.

To assess their ability to comprehend a similar text (same topic and terminology) and their ability to show understanding by answering different wh-questions, students completed a formative quiz the following day. This quiz required them to answer five different wh-questions, use context clues to guess meaning, and identify the antecedent of some pronouns. Figure 8 illustrates the results of this quiz.

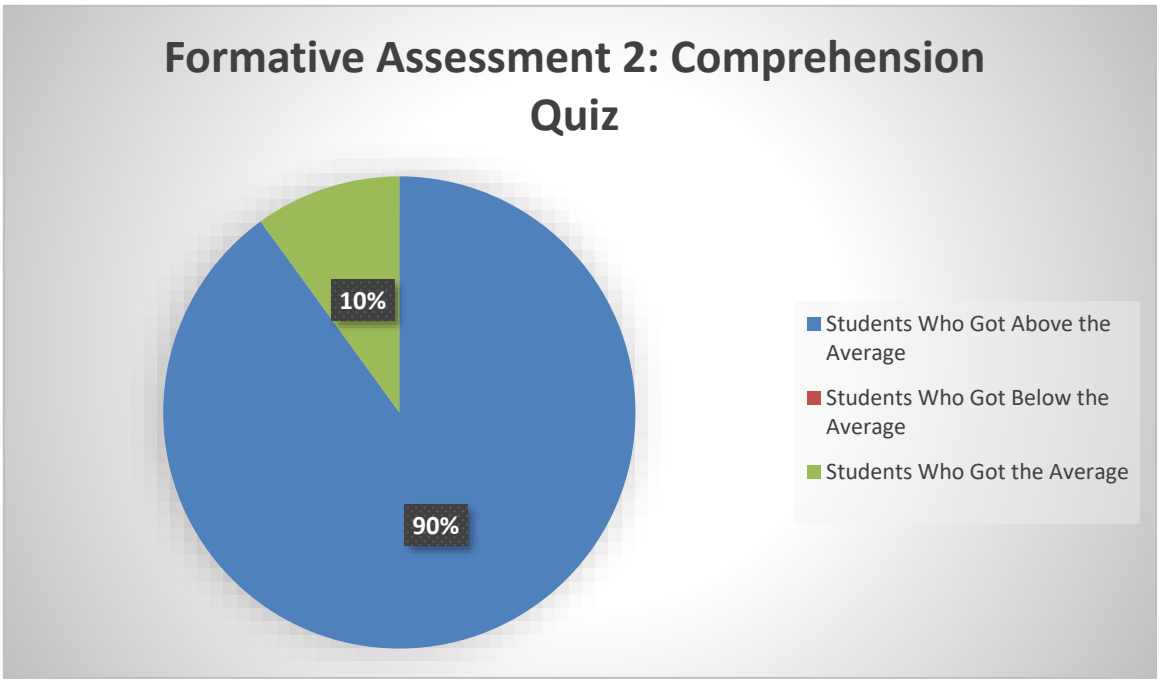

Figure 8. Formative Assessment 2: Comprehension Quiz

3.6.2.3 Teaching Grammar

Instead of relying on video introduction and guided induction of grammar rules, two 55-minute sessions were developed inspired by FIRST-ADLX Framework's learning and experience activities. ChatGPT was utilized at different stages throughout the sessions. The main learning outcomes were centered around the simple present tense, including its definition, forms, appropriate usage, and the ability to accurately describe facts and habits.

The sessions started with a pre-class inquiry-based exploration of the present simple tense. The opener allowed students to share their experiences and observations from the pre-class task, and the first RAR activity involved students in group work where they prepared a poster and mini-presentation to explain the target tense, with feedback provided by other groups.

A short energizer activity was conducted to refresh and engage students, and a linking and summarizing activity was followed in which the facilitator used a PowerPoint presentation to reinforce the grammar rule.

The second RAR Activity was a jigsaw activity where students worked on typical grammar exercises, shared answers with different groups, and then returned to their original groups to discuss and compare findings. The reviewing actively stage and the closure activity fostered reflection and insight sharing. As a follow-up, students were encouraged to write a paragraph about an environmental problem, seeking assistance from ChatGPT to identify and correct grammar mistakes. The answer key and feedback were provided on the following day based on the students' identified mistakes.

To assess their ability to use the simple present tense accurately, a grammar quiz was conducted the day that followed. This formative quiz required them to answer and complete a set of sentences using the simple present tense, change a couple of statements into the negative and interrogative form, form questions in the simple present tense using wh-words, and write a short text about their daily routines. Figure 9 illustrates the results of this quiz.

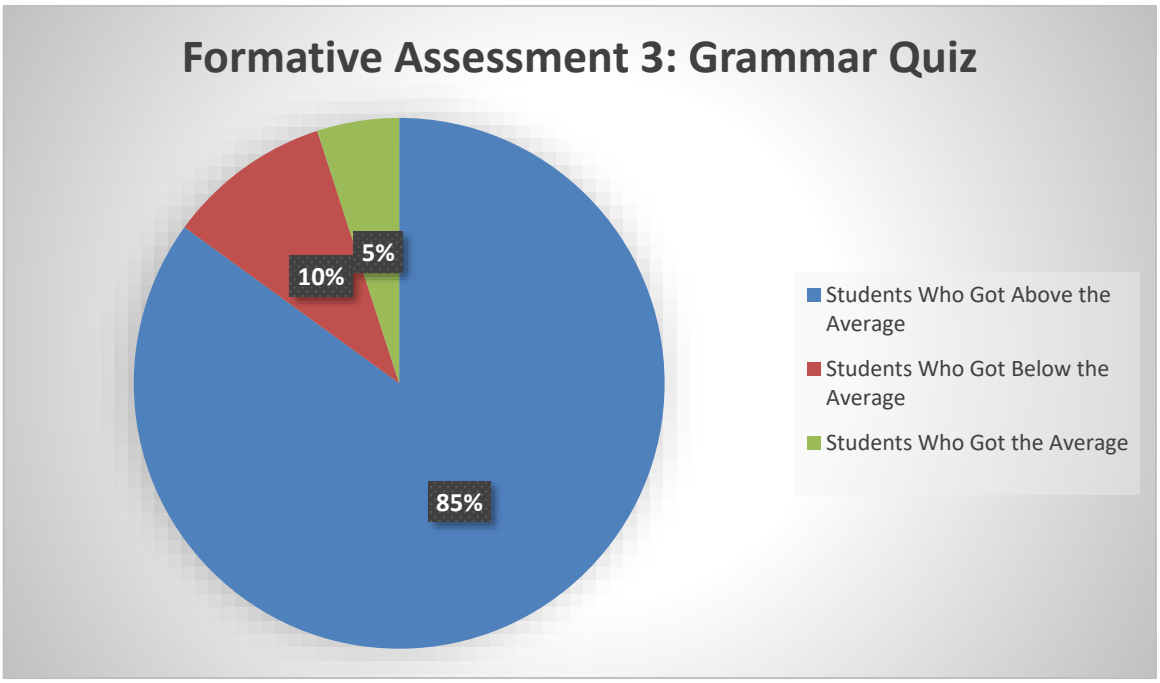

Figure 9. Formative Assessment 3: Grammar Quiz

3.6.2.4 Improving Speaking Skills

The sessions focused on improving speaking skills with the following main learning outcomes: the ability to identify and present relevant information on environmental problems, demonstrate effective communication skills during presentations, and develop confidence in public speaking.

The experience began with a pre-class task where students utilized ChatGPT to transform their presentation ideas into speeches and provide editing suggestions. During the opener, students reflected on the assistance of ChatGPT in their preparation. The majority of the sessions consisted of students' presentations, with each team allotted six minutes and individual students speaking for two minutes. During the activity facilitation, students presented in groups, focusing on different aspects such as causes, effects, and solutions to environmental problems.

Following the presentations, questions were answered, allowing for further discussion, and throughout the presentations, students used white papers to collect information from their peers' presentations. Peer feedback was exchanged, and an energizer game was conducted after the second presentation to energize the students and foster a positive atmosphere. The same steps were repeated in the subsequent session so that every learner gets the chance to present.

To assess their ability to speak about the topic fluently, a presentation assignment was designed. Students were invited to revisit the big question of the unit and collect information in which they defined the problem, list causes, discussed effects, and offered solutions. Their presentations were assessed in terms of content, language, design, and presentation skills. Figure 10 illustrates the results of this quiz.

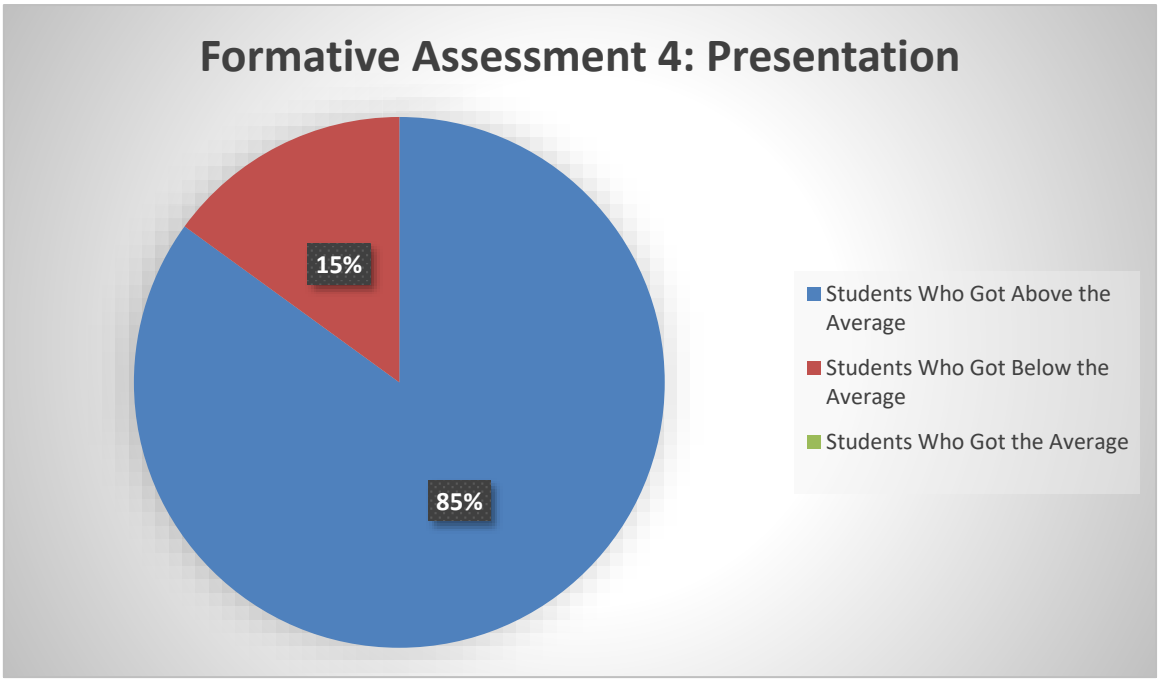

Figure 10. Formative Assessment 4: Presentation

3.6.2.5 Improving the Students' Writing Skills

In the three subsequent sessions, the focus was on improving the students' writing skills with the following main learning outcomes: understanding the components and structure of a problem-solution essay, writing a problem-solution essay about an environmental problem, and developing confidence in writing essays.

The sessions began with an opener discussing the importance of the writing process. Then, learners were engaged in a group activity in which they read and analyzed a sample problem-solution essay. An energizer (Hot Chair Game) followed to refresh the learners.

Brainstorming was conducted and areas of research were outlined in pairs to gather ideas for the essays. A mini presentation, delivered by the facilitator, summarized the key points and emphasized thorough research.

As an after-class mission, students used ChatGPT to investigate the areas they needed to gather information about.

The second session started with students sharing challenges and lessons learned, followed by developing thesis statements and creating outlines in groups. Students then wrote their essays, dividing the work among themselves while seeking assistance from peers and the teacher. For the reviewing actively stage, new words and information learned during the task were shared actively, and the session was concluded with students expressing their feelings through drawings.

For the after-class mission, students used ChatGPT to identify and correct mistakes. On the next day, students shared their writing process experiences, worked collaboratively to compile their paragraphs into one cohesive essay, focused on transitions and flow, and provided feedback using sticky notes. The session was concluded with appreciation for their dedication and collaborative effort.

A summative assessment was conducted after that. Students were invited to sit for a two-hour test in which they read a text, answered some wh-questions, corrected grammar mistakes in a couple of sentences, and wrote an essay. The summative assessment was conducted at the end of term three, and its results along with the results of two other summative assessments that were conducted at the end of term 1 and at the end of term two (that's before the study) are illustrated in figure 11.

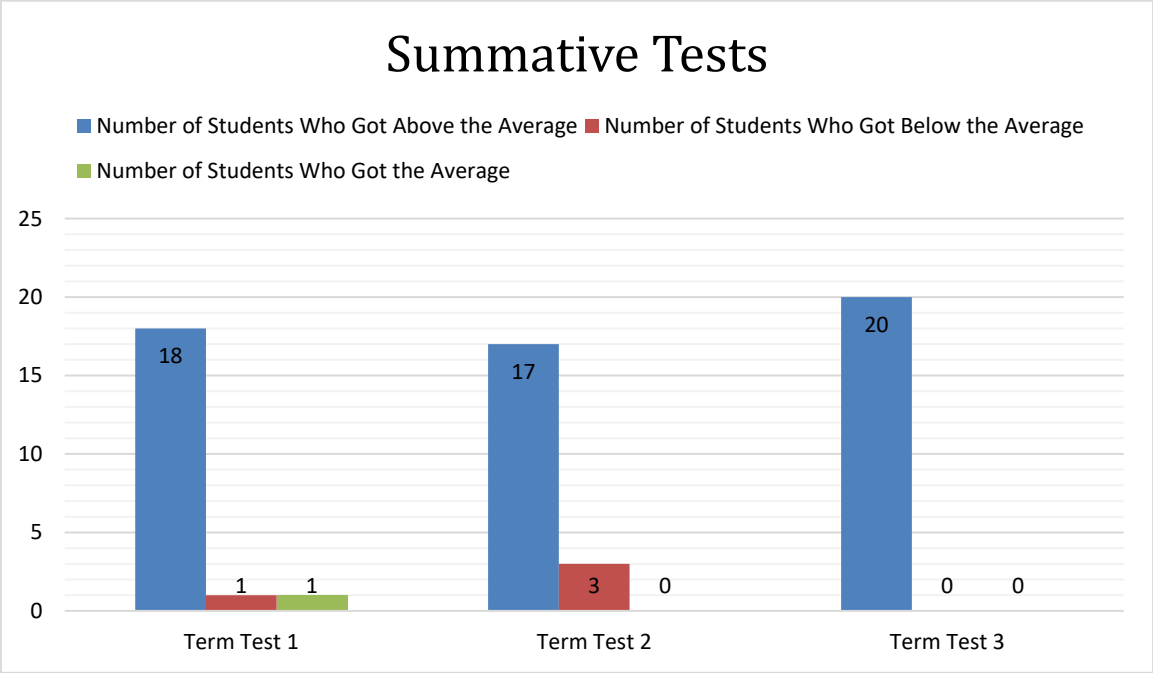

Figure 11. A Comparison between the Results of Three Summative Assessments

3.6.3 Facilitating with FIRST-ADLX Framework

In the facilitation process, the 5 domains and 15 principles of FIRST-ADLX Framework were utilized as follows:

3.6.3.1 Focusing on the Learner

Individualization: Learners were addressed by names and nicknames. Each of them was given a role to fulfill in the collaborative activities, each was given the chance to reflect on his/her own experiences, AHA moments, lessons learnt, and points of weaknesses (unclear points). ChatGPT offered individualized instruction as well by providing customized sentences in the vocabulary task, tailored questions in the comprehension task, adaptive rules in the grammar task, and personalized feedback and guidance in the writing task.

Probing and Assessing: Throughout the whole process, the teacher-researcher monitored the learners, probed their learning by asking different questions and pulling information, assessed their knowledge, and interfered when needed to clarify ambiguities and focus on key concepts. ChatGPT helped me probe and assess my learners specifically in the last task when students were invited to edit their paragraphs using ChatGPT and share the lessons learnt.

Trust the Learner: The learners were trusted and given the chance to be responsible for their own learning. They collected information, arranged them, used them to induce the rules or to guess meaning, and presented their findings in different classes. For instance, in their vocabulary class, they collected sentences, worked together to guess the meaning, and explained the words to their friends. This process was repeated in the reading, speaking, and writing classes as well. As for ChatGPT, the learners were trusted and empowered with the tools needed to use the technology they like to learn instead of using it to cheat.

3.6.3.2 Interacting within Positive Group Dynamics

Social Event: The energizers used helped create a friendly and amusing environment. Posting the students' work on the board and inviting others to read and share feedback was fun and engaging.

Positive Spirit: Jokes were used from time to time to amuse the learners. The learners were invited to share positive feedback, thank each other, acclaim their friends' contributions to the team, clap, and shout to show readiness or to celebrate their achievement. The teacher-researcher made sure learners were positively engaged in their group work and offered help for low achievers and slow learners so that no one is bullied or made fun of.

Motivation and Attention: Bonus points were provided for students who were putting effort into their work. The process was as important as the product, so it was rewarded and graded as well. We shouted out for the teams and acclaimed their achievements. As for ChatGPT's role in increasing motivation, it motivated the learners by offering personalized assistance, immediate feedback, and interactive experiences. They enjoyed using ChatGPT to do their tasks and this was

clear in the stories they shared in the opener activities. They shared stories about mistakes ChatGPT made because it didn't understand the instructions well and were impressed by the amount of information it provided in a short period of time. Additionally, they shared stories about some friendly conversations they had with the application.

3.6.3.3 Reviewing Activities within RAR

As described in the previous section, the teacher-researcher fully respected the three stages of RAR model while designing and facilitating my learning activities. They all started with a *"Readiness Increase*" stage in which the teacher-researcher prepared the learners mentally, physically, and emotionally for the activity to come. As for the *"Activity Facilitation"* stage, the teacher-researcher made sure every learner was on task, monitored them, clarified ambiguities, and solved any emerging problems. The last stage, which is the *"Reviewing Actively"* stage was full of emotions and rich with insights. Learners reflected on what they learned and discussed areas to use the new knowledge in the future.

3.6.3.4 Sequencing Activities

Structuring and Sequencing: The learning and experience activities were carefully designed to ensure a coherent and smooth flow of tasks, maintaining a balanced energy level throughout the class. Energizers were incorporated strategically to provide learners with a mental break whenever needed, keeping their engagement and focus intact. A flipped approach was adopted, integrating the pre-class task into the class activities, creating a seamless connection between the two. This approach allowed the activities to interweave and complement each other, building a strong foundation for the after-class missions. The integration of tasks and missions created a cohesive learning experience for the learners, enhancing their understanding and retention of the subject matter.

Repetition without Boredom: Key concepts were repeated, and the target outcomes were emphasized using different tones. The learners were invited as well to repeat the terms using the same tone like while learning about the present simple, learners were invited to say: The Simple Present Tense tells about facts, facts, facts, habiiiiiiiiitssss, and feeeeeeeelings. This sentence was repeated after each task using the same intonation and stress.

Linking and Summarizing: The learners were guided to link what they learned together and summarize the lessons learned not only in the summarizing activities designed and implemented but also in the reviewing actively stages. Asking them to share the lessons learnt and blurry points was meant to help them link their previous knowledge to the new learnt one and summarize the new information gained. This link between prerequisites or previous learning was meant to be in different tasks including the brainstorming task in the writing class.

3.6.3.5 Transforming Learning into Performance

Reflection on Reality: Learners were invited to reflect on the lessons learnt and to think about future applications for what they learnt in different reviewing actively stages.

Practicing and Experiencing: Learners were provided with a set of systematic opportunities to apply the learnt knowledge and skills during the process. In the vocabulary class, they applied what they learnt to write sentences. In the reading class, they applied what they learnt to ask and answer questions. In the grammar class, they applied what they learnt to write a small paragraph using the target tense. In the speaking class, they demonstrated learning by sharing what they learnt with others, and in the writing class, they applied all what they learnt in the previous classes and produced an essay.

Continuity and Follow Up: One of the key parallel learning outcomes were to empower and train the learners in utilizing ChatGPT as a valuable learning tool rather than a means to cheat. The learners have noticeably gained the necessary skills and understanding to effectively leverage ChatGPT for their future learning endeavors. By emphasizing the importance of ethical and responsible use, the learners will continue to apply what they have learned and reap the benefits of this valuable application in their educational journey.

It is worth mentioning that while FIRST's fifth domain may share elements with Transformative Learning, like the "process of learning through critical self-reflection, which results in the reformulation of a meaning perspective" (Mezirow, 1990a, p. XVI), their purposes diverge. FIRST emphasizes a set of practical actions educators can take to bridge the gap between learning and application. In contrast, Transformative Learning focuses on the internal experience of the learner and puts little emphasis on the educator's role as a facilitator of this experience (Biasin, 2018).

4. Data Analysis, Results & Discussion

The qualitative data was obtained from various sources such as the personal diary, the student's oral and written testimonials or comments, personal observations, and reflections. As for the descriptive quantitative data, it was mainly collected from the continuous formative assessments and the final summative assessment. This data was manually analyzed and classified based on the research questions raised earlier. While the first theme addressed the first minor

question, theme 2 addressed the second and the third, and theme 3 addressed the third. All of which contribute to the major research question. Figure 12 provides a visual representation of the themes under which the collected data was organized.

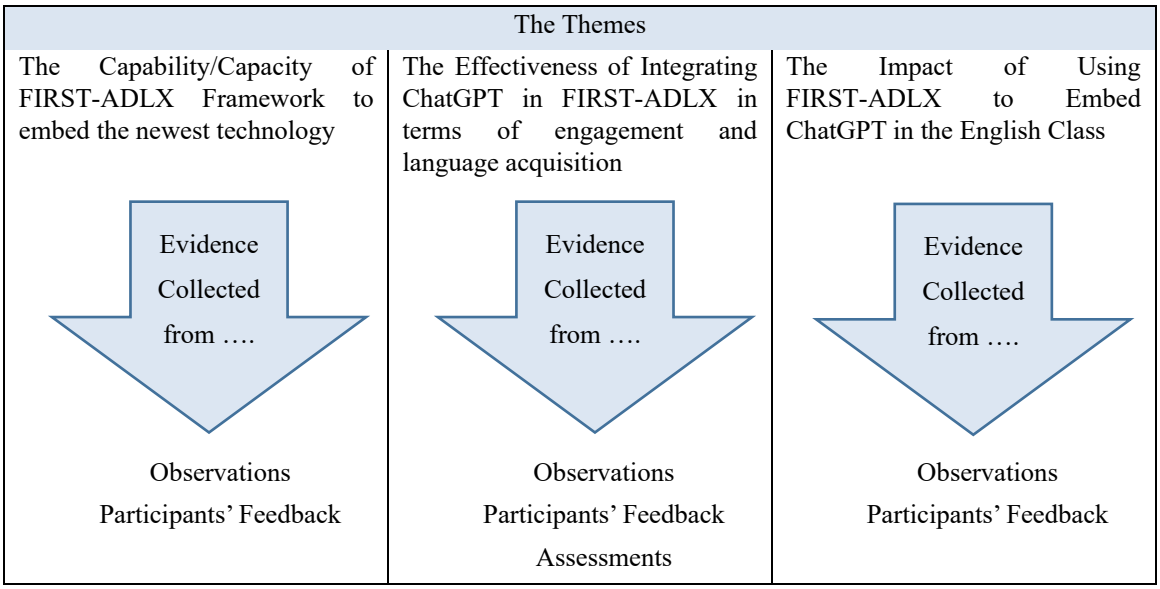

Figure 12. Thematic Categorization

4.1 The Capability/Capacity of FIRST-ADLX Framework to Embed the Newest Technology

The design of the sessions' flow using FIRST-ADLX Framework proved to be straightforward, allowing for a smooth integration of the latest technology. ChatGPT played a pivotal role as a valuable resource for student inquiries. It was utilized by students to contextualize words, gather information, and seek clarification on the taught tense. It also acted as a personal tutor for identifying and correcting writing mistakes. ChatGPT served as a supplementary tool, similar to a teacher assistant, which greatly enhanced the learner experience.

Based on my observations and the learners' oral comments, it was evident that FIRST-ADLX Framework could accommodate and leverage the latest technology without overshadowing its own capabilities. This harmony between FIRST-ADLX Framework and technology was well received by the students and was evident in their comments. "I enjoy using ChatGPT. It is much easier than looking for information on Google," "The way we are using it is good. We don't just copy the information. We have to do things with them," "Miss! Is this response correct? You told me once that this not how we write a thesis statement?", "All what I had to do is to write the word, and many many sentences were there", "I wish we could use ChatGPT in the exam, but I don't think that we can copy the answers from it. We need to work on them first. The way we do in class" are only some of the responses that show that although students enjoyed using ChatGPT and benefited from its assistance, they believed that what they did in class together was essential for better learning.

In other words, embedding ChatGPT into a humanistic approach seems crucial for this enjoyment and benefit to happen.

Quantitative data from formative and summative assessments corroborated the qualitative findings, demonstrating that the framework fostered active language acquisition. Students' performance not only exceeded mere imitation of ChatGPT but also showcased critical thinking and independent language use.

4.2 The effectiveness of Integrating ChatGPT in FIRST-ADLX Framework

Achieving the Learning Outcomes: The integration of ChatGPT within FIRST-ADLX Framework proved to be highly effective in attaining the desired learning outcomes. This effectiveness was evident through both formative and summative assessments, as well as during the facilitation of activities. Remarkably, minimal interference was required on my part as a facilitator, as learners were able to smoothly and easily accomplish their tasks while remaining fully engaged. The results of their efforts are illustrated in figure 13.

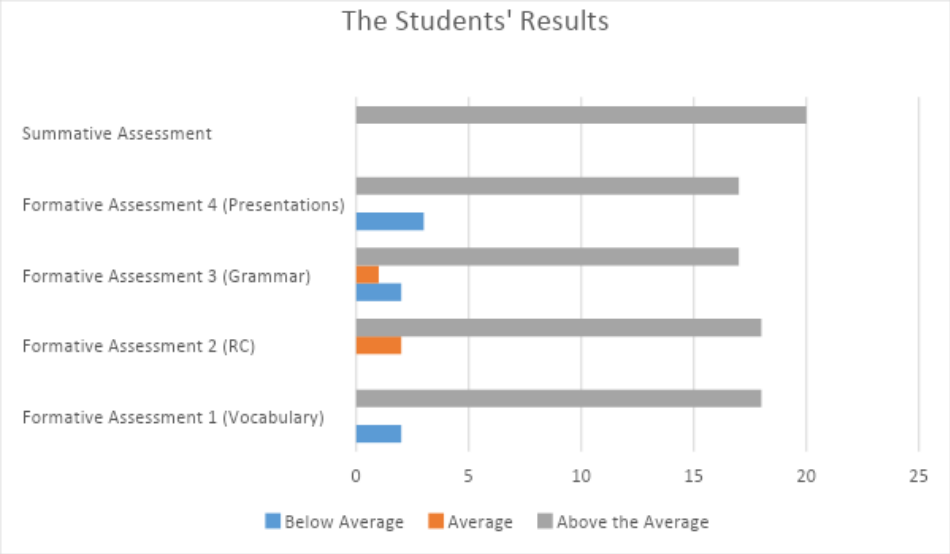

Figure 13. Student Results

Throughout the experience it was evident that learners successfully achieved the attitude, knowledge and skills learning outcomes, as indicated by the positive results of the formative assessment conducted at the end of the theme. Notably, all 20 students passed the exam, demonstrating their acquisition of the intended knowledge and skills. Regarding the attitude learning outcomes, several observations were made:

- Students displayed a genuine enjoyment in using ChatGPT as a learning tool, and the opportunity to utilize it in their homework assignments served as a motivating factor for their engagement and participation.
- The students' perception of their teacher improved, as they felt that their teacher was open to adopting new technologies and did not react negatively to their use of AI.
- The public speaking task showed a reduction in anxiety and stress among students, as they felt more confident in delivering speeches without worrying about language mistakes, thanks to the assistance provided by ChatGPT.
- There was a notable shift in students' attitude towards writing classes, as they no longer perceived them as difficult. They realized that while AI can provide support, their own active participation and clear instructions were crucial in achieving successful outcomes.

Another important aspect to consider is the ethical consideration surrounding the use of ChatGPT. Learners demonstrated an understanding of this by using the information provided by ChatGPT to learn, editing it, adding to it, reflecting on it, and sharing lessons learnt. This ethical awareness was apparent not only in my observations but also in the comments and feedback provided by the learners themselves. The learners didn't only use ChatGPT in other classes, but also were ready to tell that they did and ask if it was ok to use it the way they did. "So, is it okay to use ChatGPT for my essay?" But how can you do that without being caught?" "Will you know if I did?" "Can you tell me how to use it then?" and many other similar questions triggered a discussion about ethical considerations. In response to my questions mainly in the reviewing actively stage and the opener activities, learners were motivated to ask questions and draw conclusions like "we can use ChatGPT to collect information" "It can help us edit our work and find the mistakes" "It provides direct answers and saves time" "We don't have to copy things as they are. We can read and summarize or ask ChatGPT to summarize the long texts for us." "Miss! Do you believe that we should use it always?" "Miss! Do you use it to make tests? So, we can find the same test if we ask it?" "Can you talk to the other teachers so that they allow us to use it.""We promise we won't copy, but it will help us better understand things."

4.3 The Impact of Using FIRST-ADLX Framework to Embed ChatGPT

For a better understanding of the impact of FIRST-ADLX Framework when used to embed ChatGPT, a comparison was drawn between using ChatGPT alone and using it within the framework. Figure 14 below demonstrates the framework's added value.

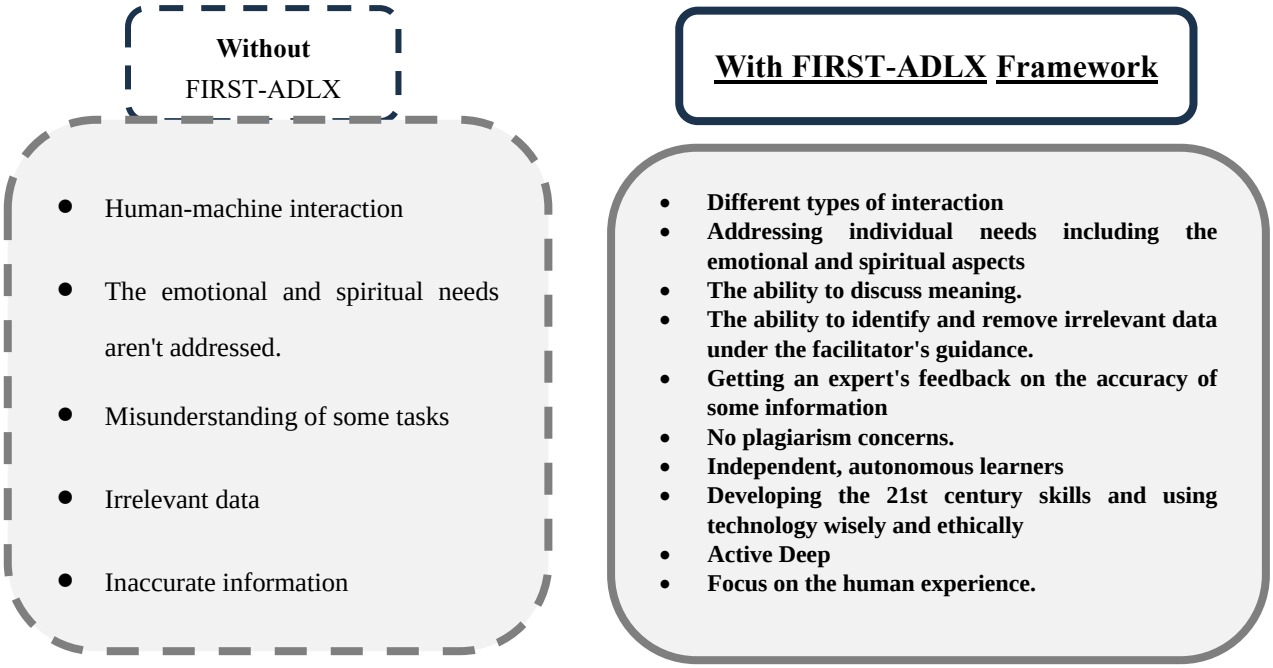

Figure 14. Comparison Between Using ChatGPT with and Without FIRST-ADLX Framework

As shown above, when comparing the integration of ChatGPT within FIRST-ADLX Framework with the absence of the framework, several contrasting aspects become evident. Without the framework, human-machine interaction lacks effectiveness, leading to a neglect of emotional and spiritual needs. Tasks are often misunderstood, resulting in the inclusion of irrelevant data and inaccurate information. Ethical concerns arise, such as plagiarism, as learners become dependent on the machine. Additionally, some of the 21st-century skills may deteriorate.

In contrast, the framework provides different types of interaction that address individual needs, including the emotional and spiritual aspects. Learners are able to discuss the meaning behind the tasks and remove irrelevant data with the guidance of the facilitator. They also benefit from expert feedback on the accuracy of information, eliminating plagiarism concerns. The framework fosters independent and autonomous learners, developing 21st-century skills and promoting the wise and ethical use of technology. The focus shifts from a passive approach to an active deep engagement with the content, emphasizing the human experience.

The results also support the claim presented earlier about the parallel and the performance learning outcomes of the learning journey, and by incorporating all of these outcomes into the journey's design, the researcher successfully cultivated a holistic approach to language education and empowered students to leverage technology intelligently and responsibly in their language learning endeavors, which demonstrates the framework's effectiveness in achieving this goal.

5. Conclusion

Overall, the findings emphasize the importance of integrating AI, such as ChatGPT, within a comprehensive and humanistic learning framework like FIRST-ADLX Framework. By embedding AI technology within FIRST-ADLX Framework, the benefits are maximized and a more meaningful and effective learning experience for the students is ensured. This role of human instruction and support alongside of AI models was emphasized by Baidoo-Anu and Ansah (2023) and Ribeiro and Vala (2020) in their study about the responsible usage and integration of AI and holistic frameworks that address the teachers' concerns of limited personalization and promote humanistic principles. The findings agree as well with Mhlanga's (2023) argument with the need for innovative teaching approaches to embed ChatGPT and benefit from it.

To further clarify, it is essential to understand that AI tools like ChatGPT should serve as aids to support and enhance the learning process, rather than replace the role of the teacher or undermine the active involvement of learners. While

showcasing ChatGPT's potential for personalized tutoring, the importance of human interaction and the teacher's role in guiding and facilitating the learning process is acknowledged (Chen et al., 2020). The integration of AI within FIRST-ADLX Framework promotes a student-centered approach, where learners actively engage with AI tools and each other to deepen their understanding, develop critical thinking skills, and explore new perspectives. Similarily, Chiang et al. (2021) speak about an adaptive learning system based on ChatGPT that can be aligned to focus on active learning and engagement, providing students with personalized learning paths and opportunities for independent exploration.

In other words, the integration of AI should align with the principles of humanistic education, fostering a supportive and inclusive learning environment. This means providing clear instructions, guidance, and scaffolding to students, encouraging their active participation, and ensuring that the use of AI tools enhances their autonomy, self-confidence, and motivation.

By emphasizing the importance of integrating AI within a comprehensive framework and promoting a humanistic approach, we can ensure that AI technology, like ChatGPT, becomes a valuable tool that enhances the Active Deep learner eXperience, rather than overshadowing it or diminishing its effectiveness.

6. Limitation

As an autoethnography, this study is subject to limitations such as its narrow focus on the self, a small number of participants, a short period of data collection (almost three weeks), and the sole interpretation of the data by the researcher. One more limitation is the small number of participants, a small sample of participants can limit the generalizability of the results and the statistical power of the findings. However, despite these limitations, sharing this experience with other teachers and facilitators in similar contexts or facing similar challenges can hold considerable value and open doors for future research.

7. Future Research Recommendation

Further research can explore the long-term effects of such integration in order to ensure its sustainability, effectiveness, and adaptability. Future research can also compare the results of this integration to the results of integrating AI in other pedagogical approaches to help us explore how valid, effective, and efficient is such an integration. Measuring the impact of such integration on the teachers' pedagogical practices and investigating its effectiveness in different contexts and with different age groups can also add a lot as they help identify any possible challenges and find ways to address them. One more area of investigation can be studying the effect of such integration on the learners' creativity and innovation so that teachers don't foster passivity and dependency. Examining the impact of such integration on subjects other than language learning is important as well to provide a holistic understanding of the pros and cons. In short, investigating these areas among others can help educators to make an informed decision about using AI in education.

8. List of Abbreviations

Table 3. List of Abbreviations

Abbreviation	Meaning
AI	Artificial Intelligence
FIRST	Focusing – Interacting – Reviewing – Sequencing - Transforming
ADLX	Active Deep Learner eXperience
ChatGPT	Chat generative Pretrained Transformer
RAR	Readiness Increase, Activity Facilitation, Reviewing Actively
K	Knowledge
S	Skill
A	Attitude

Acknowledgments

Not applicable.

Authors contributions

Not applicable.

Funding

Not applicable.

Competing interests

Not applicable.

Informed consent

Obtained.

Ethics approval

The Publication Ethics Committee of the Redfame Publishing.

The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

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