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Department of English Language

**Using Diffit AI for Text Adaptation to
Enhance Writing Skills**
**The Case of Third-Year English Students
at The University of Ghardaïa**

**Dissertation Submitted to University of Ghardaïa
for Obtaining the Master's Degree in Didactics**

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Dedication

(وَمَا تَوْفِيقِي إِلَّا بِاللَّهِ عَلَيْهِ تَوَكَّلْتُ وَإِلَيْهِ أَنِيبُ)

صدق الله العظيم

سورة هود، الآية 88

**First and foremost, all praise and thanks are due to Allah,
who gave me strength, patience, and guidance to complete this work.**

**I dedicate this humble work to my beloved parents,
for their endless love, sacrifices, prayers, and unconditional support
throughout my academic journey.**

May Allah bless them and reward them abundantly.

**To my dear family,
thank you for always believing in me and encouraging me to move forward.**

**To my friends and classmates,
for all the unforgettable moments, support, and motivation we shared
together.**

**Finally, I dedicate this work to myself,
for remaining patient, determined, and strong despite all the challenges**

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Abstract

This study investigates the effectiveness of using Diffit AI for text adaptation to enhance the writing skills of Third-Year Licence students at the University of Ghardaïa. Writing remains a persistent challenge for English as a Foreign Language (EFL) learners, who frequently struggle with vocabulary acquisition, syntactic structures, and rhetorical organization. To address these individual learner needs, this research explores the integration of Artificial Intelligence (AI) as a personalized scaffolding tool. A mixed-methods research design was adopted to collect and analyze both quantitative and qualitative data. The quantitative component utilized pre-tests and post-tests to measure immediate improvements in the participants' writing performance, specifically focusing on grammar, vocabulary, and paragraph organization. The qualitative component employed questionnaires and short interviews to explore students' attitudes, experiences, and perceptions regarding the interactive use of Diffit AI. The research operates under the hypotheses that AI-driven text adaptation positively influences students' linguistic accuracy and that learners maintain positive attitudes toward the tool due to increased engagement and reduced text frustration. While the study is bounded by specific limitations, including a relatively small sample size, a short intervention duration, and potential technical or internet constraints, the findings provide valuable pedagogical insights for educators at the University of Ghardaïa and similar institutions on integrating generative AI tools to support differentiated instruction and writing development.

Keywords: Diffit AI, Text Adaptation, Writing Skills, EFL Learners, Mixed-Methods, University of Ghardaia.

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ملخص البحث		

List of abbreviations:

- ✚ **EFL:** English as a foreign language
- ✚ **L2:** Second language
- ✚ **TESOL:** Teaching English to Speakers of Other Languages
- ✚ **ESL:** English as Second Language

General Introduction

General Introduction

1. Background of the study

2. Statement of the problem

3. Research Objectives

4. Research Questions

5. Research Hypotheses

6. Research Methodology

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General Introduction

1. Background of the Study:

In the recent years, Technology has become an important part of education, especially in language learning (Stockwell, 2022).

One of the most significant developments in the use of Artificial Intelligence (AI) tools to support students in improving their skills (Holmes et al., 2023).

Among these tools, Diffit AI has gained attention for its ability to adapt texts according to learners' level (Heftae & Karakus, 2025).

This study focuses on how Diffit AI can be used to enhance writing skills among Third-year Licence students at the University of Ghardaia.

Writing is one of the most important skills in learning English as a foreign language. However, many students face difficulties in organizing ideas, using correct grammar and expressing themselves clearly (Jeremy Harmer, 2004).

In this context, with the development of Artificial Intelligence (AI), new tools have appeared to help students learn more effectively (Zawacki-Ritcher et al., 2019).

AI can support writing by providing feedback, ideas, and adapted texts that match students' levels (Chockalingam & Annamalai, 2025).

According to (Sidney I Dorbin, 2026), AI is changing the way writing is taught and learned, making it more interactive and suitable for students.

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In addition, AI tools can adapt materials to meet learners' needs (Rose Lucking et al., 2016). With the emergence of AI tools like Diffit AI, students can access simplified and adapted texts that match their level, which may help them improve their writing gradually (Sarica, 2025).

This dissertation aims to investigate the effectiveness of using Diffit AI for text adaptation in enhancing the writing skills of Third-year Licence students at the University of Ghardaia.

It seeks to examine how adapted texts can help students improve their vocabulary, sentence structure and overall writing performance.

The study also aims to explore students' attitudes toward using AI tools in learning writing.

2. Statement of the problem:

Despite years of studying English, many Third-year Licence students at the University of Ghardaia still struggle with writing (Ulla, 2011, as cited in Al-Khasawneh, 2023).

Traditional teaching methods may not fully meet students' individual needs (Tomlinson, 2014).

Therefore, there is a need to explore new tools, such as Diffit AI, to support students in developing their writing skills more effectively.

3. Research Objectives:

This study aims to investigate the objectives below:

- ✚ To investigate the effectiveness of Diffit AI in improving students' writing skills.
- ✚ To examine how text adaptation helps students understand and produce written texts.
- ✚ To explore students' attitudes toward using AI tools in learning writing.

4. Research Questions:

This study seeks to answer the following research questions:

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- ✓ How does Diffit AI affect students' writing skills?
- ✓ Does text adaptation improve students' ability to write clearly and correctly?
- ✓ What are students' perceptions of using Diffit AI in learning writing?

5. Research Hypotheses:

As a reply to the research questions posed in this study the following hypotheses are suggested:

- ❖ Diffit AI is expected to have a positive effect on students' writing skills by helping them write more clearly and correctly.
- ❖ Text adaptation is expected to improve students' ability to use appropriate vocabulary and sentence structures in their writing.
- ❖ Students are expected to have positive attitudes toward using Diffit AI, as it makes learning writing easier and more engaging.

6. Research Methodology:

This study adopts a mixed-method approach, combining both quantitative and qualitative data to obtain a comprehensive understanding of the impact of Diffit AI on student's writing skills (Creswell & Creswell, 2018).

The participants are Third-year Licence students at the University of Ghardaia.

For the quantitative part, students will complete writing tasks before and after using Diffit AI in order to measure their improvement in writing performance, such as a grammar, vocabulary and organization (Derneyi, 2007).

For the qualitative part, questionnaires and possibly short interviews will be used to collect students' opinions and experiences with the tool.

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The data will be analyzed to determine whether text adaptation through Diffit AI has a significant effect on students' writing skills.

This method allows the research to evaluate both the results “performance” and the process “students' attitudes and experiences” (Creswell & Creswell, 2018).

7. Rationale:

This study is important because it focuses on the use of modern technology, especially Artificial Intelligence, in improving language learning.

Writing is often considered one the most difficult skills for EFL students, and many learners struggle to express their ideas clearly.

By using Diffit AI, this study explores a new way of helping students through adapted texts that match their level.

This can make learning more personalized, effective, and motivating.

The study may also provide useful insights for teachers at the University of Ghardaia and other institutions on how to integrate AI tools into their teaching practices to support students' writing development.

8. Limitations of the study:

This study may face several limitations:

First, the sample size may be relatively small, which can limit the generalization of the results to other contexts or universities.

Second, the duration of the study may not be long enough to observe long-term improvement in writing skills.

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Another limitation is that some students may not be familiar with using AI tools, which could affect their performance and responses.

In addition, technical issues such as Internet access or device availability may also influence the use of Diffit AI.

Finally, the study focuses only on Third-year Licence students at the University of Ghardaia, which means the findings may not apply to students at different levels or in different educational settings.

A yellow scroll graphic with a brown border and three brown circular fasteners at the top corners. The text is centered on the scroll.

Chapter One:

Literature Review

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Chapter One: Literature Review

1.1 Introduction:

This chapter presents the theoretical framework of the study. It focuses on the main concepts related to writing skills in EFL contexts, the use of Artificial Intelligence in education, and the importance of Text Adaptation in language learning (Krashen, 1985).

It also discusses the different types of writing, such as descriptive, narrative, expository, and argumentative writing.

Each type requires different skills and allows students to express ideas in several ways (Reid, 1993, as cited in Hyland, 2003).

However, many learners face difficulties in mastering these types of writing, especially in terms of grammar, vocabulary, and organization (Silva, 1993).

Furthermore, this chapter introduced Diffit AI as a modern educational tool that can support students in improving their writing skills by providing adapted texts that match their level (Dewi, 2025).

It explains how such tools can make learning more personalized, interactive, and effective. The concept of text adaptation is also important in language learning.

Also, adapted texts help students understand content better and develop their writing skills step by step.

In addition, this chapter reviews a number of previous studies that have examined the role of AI and adapted materials in language learning. These studies highlight the benefits of using Technology to support students' writing development, improve their understanding, and increase their motivation to learn English (Crompton & Burke).

1.2 Definition of writing:

Writing is the ability to express ideas, opinions, and information in a written form.

It is one of the most important language skills that learners need to develop in order to communicate effectively in academic and real-life situations.

Through writing, students can share their thoughts, describe experiences, and explain ideas in a clear and organized way (Hyland, 2003).

Writing is not a simple or automatic activity, rather it is a complex and multi-stage process.

It involves several steps such as generating ideas, planning, organizing, drafting, revising, and editing. During this process, learners need to think carefully and deeply about what they want to say and how to say it.

They must also select appropriate vocabulary, use correct grammar, and build meaningful sentences and paragraphs (Flower & Hayes, 1983).

Moreover, writing requires attention to important elements such as coherence and cohesion. Coherence refers to the logical organization of ideas, while cohesion refers to the use of linking words and phrases to connect sentences smoothly (Halliday & Hasan, 1976).

In addition, learners need to use correct punctuation and spelling to make their writing clear and understandable.

Another important aspect of writing is the awareness of audience and purpose.

Writers must consider who will read their text and why they are writing. For example, writing a narrative text is different from writing an argumentative essay, as each type has its own structure and language features.

This makes writing a challenging skill, especially for EFL learners who are still developing their language proficiency (Nunan, 1989, as cited in Silva, 1993).

Therefore, writing can be considered both a cognitive and linguistic activity (Zhao, 2026).

It helps learners develop their thinking skills, improve their language use, and become more confident in expressing themselves in English.

For this reason, writing plays a central role in language learning and requires continuous practice and support.

1.3 Importance of Writing:

Writing is an essential skill for students in both academic and real-life contexts. It is one of the main ways learners can express their thoughts, ideas, and opinions clearly.

Through writing, students are able to communicate with others, share information, and explain their understanding of different topics (Weigle, 2002, as cited in Mckinley, 2013).

In academic settings, writing plays a very important role. Students are often required to complete different types of written tasks such as essays, reports, assignments, and exam answers. These tasks help teachers evaluate students' knowledge and understanding.

Therefore, having good writing skills is necessary for success at university (Wingate, 2012, as cited in Golpour, 2014).

Writing also helps students develop important thinking skills. When students write, they need to organize their ideas, choose the right words, and present their arguments in a logical way.

This process improves their critical thinking and helps them become more independent learners (Paul & Elder, 2014, as cited in Wijaya, 2022).

In addition, writing encourages creativity, as students can express their personal ideas and experiences in different ways (Barnawi, 2011).

In real life, writing is also very useful. People use writing in many situations, such as writing emails, messages, applications, and even social media posts.

Being able to write clearly and correctly helps individuals communicate effectively in their daily lives and future careers (Yancey, 2015).

For EFL learners, writing is especially important because it helps them practice and improve other language skills such as grammar, vocabulary, and reading (Rivers, 1981, as cited in Pally, 2011).

The more students write, the more confident they become in using English language (Zhang, 2017). For all reasons, writing is considered a key skill that students need to develop in order to succeed both academically and in real life.

1.4 Writing as a Language Skill and its Pedagogical Importance:

1.4.1 Writing as a Productive and Generative skill:

Within the field of Second Language Acquisition (SLA), writing is classified as a productive skill, alongside speaking.

However, writing extends beyond production, it is a generative linguistic act that obliges to shift from passive recognition to active production of language structure.

According to Swain's (1985) Output Hypothesis, the act of producing language either spoken or written forces learners to notice gaps in their linguistic knowledge.

When EFL students write, they are pushed from semantic processing "simply understanding meaning" to syntactic processing "constructing grammatical forms".

This cognitive push fosters deep grammatical consolidation and lexical precision, making writing a powerful vehicle for overall language development, rather than just an assessment tool (Nation, 2009, as cited in Manchon, 2011).

1.4.2 The Cognitive and Socio-Cognitive Nature of Writing:

Writing is far from a mechanical or automatic translation of speech into text, it is an incredibly demanding cognitive process.

In their landmark cognitive process theory of writing (Flower & Hayes, 1981), it demonstrated that writing involves a continuous, non-linear or recursive stages: planning “goal-setting and organizing”, translating “drafting thoughts into linguistic form”, and reviewing “evaluating and editing”.

This process constantly strains the learners’ working memory. EFL writers must balance lower-level linguistic constraints, such as orthography, spelling, and basic morphology, with higher-level rhetorical demands, such as maintaining a cohesive argument, staying relevant to the prompt, and adapting tone to be an absent audience (Kellogg, 1996, as cited in Schoonen et al., 2003).

1.4.3 The Complexity of EFL Writing Execution:

The pedagogical complexity of writing stems from its multi-layered, integrative requirements.

For an EFL learners to produce an effective text, they must successfully coordinate three distinct dimensions simultaneously:

- ✚ **The Lexical Dimension:** accessing and selecting the exact academic vocabulary and collections required to convey precise shades of meaning (Laufer & Nation, 1995).
- ✚ **The Syntactic Dimension:** employing correct grammatical structures, tense consistency, and casual complexity to ensure structural accuracy (Ferris, 2011).
- ✚ **The Discourse Dimension:** Establishing global coherence (the logical and thematic flow of ideas) and local cohesion (the explicit use of textual transitions and connective

markers) to guide the reader smoothly (Halliday & Hasan, 1976, as cited in Hyland, 2003).

Because failure in any single layer can disrupt the communicative efficacy of the whole text, writing is pedagogically recognized as the most complex language skill to master, necessitating explicitly structured instructional scaffolding and personalized feedback systems (Richareds & Renandya, 2002).

1.4.4 The intercultural and Social Dimension of Writing:

✓ **Writing as a Social Practice and Discourse Community integration:**

Modern composition theory widely recognizes that writing is not an isolated cognitive act, but a deeply embedded social practice.

When EFL learners write an academic text, they are not just arranging sentences, they are attempting to enter a specific discourse community (Swales, 1990).

Every academic discipline or social community has its own unwritten rules, expectations, and conventional genres that dictate how knowledge should be structured, how arguments should be presented, and how authors should position themselves relative to their readers.

According to (Hyland, 2004) socio-cognitive view of writing, effective writing is inherently audience-centric.

However, writers must employ specific rhetorical devices, such as hedges and boosters to negotiate meaning socially with an absent reader.

For EFL learners, writing is a process of acquiring identity that aligns with the social and professional expectations of the English-speaking academic world (Street, 1998, as cited in Bacha, 2002; Lea).

✓ **Contrastive Rhetoric and Cross-Cultural Variations**

A critical challenge within the social dimension of EFL writing is the intersection of the learners' native cultural thought patterns with English rhetorical conventions.

This phenomenon is rooted in the field of contrastive rhetoric, pioneered by (Kaplan, 1966) and later expanded into intercultural rhetoric by (Ulla, 2011). This theory posits that language and writing structures are uniquely shaped by culture. Cultural backgrounds strongly influence how an individual organizes logic, builds arguments, and presents evidence in written forms.

For instance, Anglo-American academic writing is entirely responsible for making the text explicitly clear, organized, and direct. Conversely, many oriental, semitic, or romance language cultures employ inductive, indirect, parallel rhetorical styles, which are often reader-responsible, leaving the interpretation of logic partially to the reader (Hinds, 1987).

Consequently, when EFL students write in English, they often unconsciously transfer the rhetorical patterns of their native language into their English texts (AI-Khasawneh, 2023).

This can result in essays that despite being grammatically correct, may seem unorganized, digressive, or structurally confusing to an English-speaking reader, highlighting the profound impact of cultural conventions on writing proficiency.

1.4.5 The Affective Filter and Psychological Factors in Writing:

❖ Krashen's Affective Filter Hypothesis in the Context of Writing

The psychological landscape of an EFL learner plays a critical role in determining their linguistic output.

The theoretical foundation for understanding these inner mechanisms is Stephen Krashen's (1982) Affective Filter Hypothesis.

Krashen posits that emotional variables anxiety, motivation, and self-confidence can act as an invisible psychological barrier that either facilitates or prevents input from reaching the language acquisition device (LAD).

Therefore, when applied to the productive skill of writing, a “high affective filter” acts as a cognitive block during the generation phase.

When EFL students experience high anxiety or low self-respect, their cognitive resources are redirected from language processing to self-defense and worry.

As a result, even if a student possesses sound grammatical and lexical knowledge, a high affective filter constricts their ability to retrieve and deploy that knowledge, resulting in fragmented, overly simplified, or severely truncated texts (MacIntyre & Gardner, 1994, as cited in Woodrow, 2011).

❖ **Second Language Writing Anxiety and Cognitive Interferences:**

Writing by its nature is a stressful communicative act because it leaves a permanent, visible record of the learners’ linguistic proficiency, making it subject to rigid evaluation.

This reality gives rise to Second Language Writing Anxiety, a distinct psychological construct extensively mapped by Cheng (2004). Cheng identifies three main dimensions of writing anxiety:

1. **Somatic Anxiety:** the physiological responses to stress, such as: nervousness and mental blocks.
2. **Cognitive Anxiety:** cognitive preoccupation with a fear of negative evaluation, peer comparison, and high performance expectations.
3. **Avoidance Behavior:** the behavioral manifestation where students delay, procrastinate, or completely avoid engaging in writing tasks.

From a cognitive perspective, writing anxiety creates severe interferences within the writer's working memory (Kellog, 1996).

Because writing requires the simultaneous coordination of planning, translating, and reviewing, the intrusion of anxious thoughts consumes valuable processing capacity. As a result, anxious writers struggle “with writer's block”, experience difficulties organizing their arguments logically, and frequently revert to safe, repetitive, and low-level vocabulary to minimize the risk of making errors (Zhang, 2019, as cited in Atay & Kurt, 2026).

❖ **Self-Efficacy, Motivation, and Instructional Feedback**

Conversely, positive psychological constructs, such as writing self-efficacy, it defined by Bandura (1997) as an individual's belief in their capability to implement a specific task, they are strong predictors of writing success.

EFL learners with high self-efficacy look at complex writing tasks as challenges to master rather than threats to avoid.

They exhibit greater persistence during the recursive drafting and revising stages and are more likely to use deeper cognitive strategies (Pajares, 2003).

Instructional environments and feedback heavily influence these psychological factors. Traditional, purely product-oriented writing instruction that focuses exclusively on corrective feedback tends to inadvertently rise learners' affective filters.

On the other hand, implementing formative feedback and personalized instructional scaffolding, such as using adaptive technologies to match tasks to individual student levels helps relieve cognitive anxiety, build self-efficacy, and fosters intrinsic motivation to write (Ryan & Deci, 2000, as cited in Bitchener & Ferris, 2012).

1.5 Types of Writing in EFL:

In English as a Foreign Language (EFL) learning, writing is usually divided into four main types.

Each type aids students develop different skills and express their ideas in different ways.

Understanding these types is essential because students are often asked to use them in their academic work (Weigle, 2002, as cited in Hyland, 2003).

1.5.1 Descriptive Writing:

Descriptive writing based on describing a person, place, object, or experience.

The main goal is to give detailed information so the reader can clearly imagine what is being described.

In this type of writing, students use adjectives and descriptive language to create a clear picture.

They answer questions like: What does it look like? How does it feel? (Reid, 1993).

Example: Describing your hometown, your best friend or your favorite place.

This type helps students improve their vocabulary and their ability to give details (Oshima & Hogue, 2007).

1.5.2 Narrative Writing:

Narrative writing is used to tell a story or describe events.

It usually follows a clear order: beginning, middle and end (Labov, 1972).

Students often use the past tense and time expression as first, then, after that, finally...etc.

This type of writing focuses on actions and events.

Example: Writing about a personal experience, a trip or a story.

Narrative writing aids students expand their ability to organize their thoughts in sequence and express events clearly (Bruner, 1991).

1.5.3 Expository writing:

Expository writing aims to explain and give information about a topic in a clear and logical way.

It is factual and does not include personal opinions.

Students need to explain ideas, give information and describe process (Langan, 2013).

Example: Explaining how to learn English, describing a process or giving information about a topic.

This type makes students develop clarity, organization and the ability to explain ideas effectively (Scardamalia & Bereiter, 1987).

1.5.4 Argumentative Writing:

Argumentative writing is used to express an opinion and support it with reasons and evidence.

The goal is to convince the reader. Students present their point of view and justify it by using examples and arguments (Hyland, 1990, as cited in Toulmin, 2003).

Example: Discussing the advantages and disadvantages of using technology in education or arguing for a specific policy change.

This genre fosters critical thinking and requires logical reasoning and counter argumentation skills (Nussbaum, 2008).

These four types of writing, **descriptive**, **expository**, **narrative** and **argumentative** are very essential in EFL learning.

Each type increases several skills and helps students become a good writer.

Mastering these types allows learners express themselves clearly and confidently in different situations.

1.6 The Writing Process:

Writing is a process that involves several major stages.

It is not simply writing sentences directly but a step-by-step activity that facilitates students organize and improve their ideas (Murray, 1972, as cited in Tribble, 1996).

The writing process allows learners to produce clearer and more organized texts.

The writing process includes four main stages: **planning**, **drafting**, **revising** and **editing** (Seow, 2002).

1.6.1 Planning

Planning is the first stage of the writing process.

In this stage students think about the topic and generate ideas before they begin writing.

They decide what they want to say, who their audience is and what the purpose of the writing is (Flower & Hayes, 1981).

Students may take notes, make outlines and organizing information into main points and supporting details.

Planning is very important because it helps learners organize their thoughts and avoid confusion in writing.

A good plan makes the writing process easier (Bardger & White, 2000).

1.6.2 Drafting:

Drafting is the stage where students begin writing their first version of the text.

During this step, learners focus on expressing their ideas without worrying about mistakes.

The main goal is to put ideas into sentences and paragraphs (Raimes, 1983, as cited in Elbow, 1998).

Students try to progress their ideas clearly by using appropriate vocabulary and grammar.

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The first draft does not need to be perfect because it will be improved later. Drafting aids learners transform their plans and ideas in writing (Zamel, 1982).

1.6.3 Revising:

Revising is an essential stage in the writing process.

Students review their writing to enhance the content and organization of their text in revising.

They may add new ideas, remove unnecessary information or rearrange sentences and paragraphs to make the text clearer and coherent (Sommers, 1980).

During revising, learners based on the quality and the meaning of their writing rather than language mistakes.

This stage helps students expand better communication and organizational skills (Faigley & Witte, 1981).

1.6.4 Editing:

Editing is the final stage of the writing process.

Students check their writing carefully for grammar, spelling, punctuation and vocabulary mistakes (Harmer, 2004, as cited in Ferris, 2011).

They correct errors and make sure that the text is accurate and well written.

Editing assists enhance the final quality of the writing and makes it understandable for the reader.

It also allows students to produce a cleaner and very professional final version of their work before evaluation (Seow, 2002).

1.7 Components of Excellent:

Excellent writing is based on different important components that aid make a text clear, organized and meaningful.

In EFL learning, students need to develop these components in order to communicate effectively in written English.

The main components of excellent writing include grammar, vocabulary, coherence and cohesion, organization, punctuation and spelling (Jacobs et al, 1981, as cited in Weigle, 2002).

1.7.1 Grammar:

Grammar is one of the most necessary components of writing.

It refers to correct use of language rules as verb tense, sentence structure, articles and prepositions.

Excellent grammar assists students write accurate sentences (Celce-Murcia & Larsen-Freeman, 1999).

When grammar mistakes are frequent, the meaning of the text may become unclear.

Therefore, learners need to practice grammar regularly in order to improve the quality of their writing and communicate (Ferris, 2011).

1.7.2 Vocabulary:

Vocabulary refers to the choice of words and expressions that students use in their writing.

Having a rich vocabulary allows learners to express their ideas very clearly, academically and accurately.

It also assists students avoid repetition and make their writing more sophisticated and engaging (Laufer & Nation, 1995, as cited in Nation, 2001).

EFL learners often face difficulties because of a limited vocabulary size.

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For this reason, learning new words and using them correctly in context is essential for improving overall writing proficiency (Schmitt, 2010).

1.7.3 Coherence and cohesion:

Coherence and cohesion are essential elements of excellent writing.

Coherence means that ideas are organized logically and are easy for the reader to follow and comprehend.

A coherent text follows an obvious sequence of thoughts (Lee, 2002).

Cohesion, on the other hand, refers to the grammatical and lexical connection between sentences and paragraphs through the use of transitional markers and expressions such as: *however*, *moreover*, *in addition*...etc.

These cohesive devices help make the text smooth and interconnected (Halliday & Hasan, 1976).

Together, coherence and cohesion upgrade the clarity of writing.

1.7.4 Organization:

Organization refers to the way structural arrangement of ideas within a text. An excellent academic writing traditionally includes a clear introduction, body and a logical conclusion (Oshima & Hogue, 2007, as cited in Bailey, 2011).

Each paragraph should be based on one central theme or topic sentence supported by relevant details, data and examples.

A well-organized text helps readers comprehend the intended message easily and follow the writer's train of thoughts without a cognitive confusion.

Proper organization also elevates the professional and persuasive efficacy of the writing (Hyland, 2003).

1.7.5 Punctuation and Spelling:

Punctuation and spelling, collectively categorized as writing mechanics, are necessary for a clear and intelligible writing.

Punctuation marks, such as commas, question marks, exclamation marks and capital letters, serve to organize sentences, create boundaries and clarify underlying semantic meaning (Harmer, 2004).

Correct spelling is equally critical because persistent orthographic errors can distract or confuse readers, obscure meaning and significantly reduce the perceived quality, and academic authority of the text.

Consequently, students must pay meticulous attention to punctuation and spelling in order to produce accurate, polished, and readable writing (Ferris, 2011).

1.8 Difficulties in Learning Writing:

Many EFL learners face multi-dimensional difficulties when learning to write. Writing is empirically recognized as one of the most challenging language skills because it demands that students simultaneously manage and coordinate several cognitive and linguistic skills and abilities (Nunan, 1989, as cited in Richards & Renandya, 2002).

Learners must concurrently generate conceptual ideas, organize them logically, and express them by using accurate grammatical and lexical structure.

One common difficulty is limited vocabulary size. Many students lack the lexical depth required to express complex ideas precisely, which frequently renders their writing overly simplistic, repetitive or incomplete (Laufer & Nation, 1995).

Another major impediment is the presence frequent grammatical errors, such as mistakes in verb tenses, syntax, articles, prepositions, and subject-verb agreement.

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These surface-level errors directly impede text clarity and global academic quality of their writing (Silva, 1993).

In addition, many students struggle significantly with the rhetorical organization of ideas. While they may process implicit conceptual knowledge, they struggle to organize these ideas into a formalized introduction, coherent body, and summary conclusion, this often leads to paragraphs that lack of functional coherence and logical flow (Lee, 2002).

Beyond linguistic barriers, psychological and affective factors present another formidable difficulty, notably a lack of writing confidence and high levels of writing anxiety.

Many learners harbor a fear of negative evaluation and errors, leading them to avoid writing tasks or produce severely truncated texts, this effective filter reduces motivation and discourages regular practice (Krashen, 1982, as cited in Cheng, 2004).

Furthermore, students frequently perceive writing as a tedious, stressful, or overly time-extended academic essays.

These systematic difficulties are often exacerbated by traditional product-oriented teaching methodologies, which prioritize grammar rules and punitive error correction over functional, process-oriented writing practice (Graham & Perin, 2007, as cited in Amiri, 2025).

In many EFL contexts, instructional frameworks fail to provide sufficient opportunities for free writing, peer interaction, or formative, constructive feedback (Bitchener, 2008).

Moreover, such rigid pedagogies rarely accommodate individual learner's variables, including proficiency levels, distinct learning styles, or individual paces of progress.

1.9 Conclusion:

This chapter provided a comprehensive overview of writing skill within the EFL context.

It initiated the discussion by defining writing as a complex multi-stage cognitive process that requires a clear expression of thoughts alongside the accurate application of grammar and vocabulary.

Furthermore, the chapter underscored the pedagogical significance of writing as a pivotal skill for academic success and effective communication in both educational environments and real-life scenarios.

Additionally, the four primary rhetorical modes of EFL writing, descriptive, expository, narrative, and argumentative, were discussed illustrating how each genre plays a distinct role in developing specific facets of a learners' writing proficiency.

Essentially, the chapter expanded beyond purely linguistic frameworks to explore the intercultural and social dimensions of writing, highlighting how cultural thought patterns and discourse community expectations actively shape a learners' rhetorical choices.

Concurrently, attention was directed toward the affective filter and psychological factors, emphasizing how writing anxiety, low self-efficacy, and emotional barriers significantly interfere with cognitive processing and text production.

The chapter also examined how these socio-cultural and psychological variables interact with the principal difficulties learners face, such as limited vocabulary size, persistent grammatical errors, and organizational deficits.

These systemic challenges reinforce the premise that writing is a highly demanding skill that necessitates continuous practice, patience, and targeted instructional support.

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In conclusion, while writing remains a necessary yet challenging skill for EFL learners, systematically diagnosing its multidimensional importance and underlying difficulties provides a robust foundational framework.

This theoretical grounding serves as prerequisite for exploring innovative technological solutions, specifically text adaptation and Artificial Intelligence tools, which will be comprehensively investigated in the following chapter.

Chapter Two:

**Artificial Intelligence and Text
adaptation in Language Learning**

Chapter Two: Artificial Intelligence and Text adaptation in Language Learning

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2.1 Introduction:

This chapter presents a comprehensive theoretical framework concern the integration of Artificial Intelligence, text adaptation methodologies, and the pedagogical application of Diffit AI in within the English as a Foreign Language (EFL) context.

It focuses on the evolving role of AI in education, examine how modern technologies can lower cognitive barriers, stimulate learner motivation, and enhance foundational language skills, with a primary emphasis on writing development.

Also, this chapter explores the concept of text adaptation and its crucial role in providing scaffolding that aligns with learner's proficiency levels.

In doing so, it elucidates the core features, architectural affordances, and instructional benefits of Diffit AI as an innovative educational tool engineered to deliver adapted materials and personalized learning experiences.

Crucially, to maintain a balanced academic perspective, the chapter addresses the critical ethical considerations, pedagogical challenges, and algorithmic biases associated with deploying automated writing assistants in the classroom.

Additionally, a strict review of relevant previous studies is provided, examining empirical evidence regarding AI tools, adapted texts, and second language outcomes.

Collectively, these empirical findings support the premise that integrating adaptive AI frameworks can positively influence student' writing skills, self-efficacy, and intrinsic motivation.

This chapter establishes the necessary theoretical foundation for understanding the symbiotic relationship between artificial intelligence, differentiated instruction, and second language writing development.

2.2 Artificial Intelligence in Education:

2.2.1 Definition of Artificial Intelligence:

Artificial Intelligence (AI) refers to computer systems or machines that are designed to perform tasks that usually require human intelligence (McCarthy, 2007, as cited in Russell & Norving, 2020).

These tasks include learning from experience, understanding and processing language, solving problems, and making decisions.

AI systems rely on data, and models to analyze information and improve their performance over time without being directly programmed for every task (Goodfellow et al., 2016).

AI is not limited for one field, it is used in many areas such as healthcare, business, transportation, and education (Popenici & Kerr, 2017).

Also, it includes different technologies like machine learning, natural language processing, and data analysis.

Machine learning allows systems to learn from data and make predictions while natural language processing helps computers understand and produce human language (Jurafsky & Martin, 2024).

These technologies make AI systems more intelligent and capable of interacting with users in a natural way.

In the field of education, AI has gained significant attention because it offers new ways to improve teaching and learning (Holmes et al., 2023).

AI can support teachers by saving time, providing resources and helping them manage their classes more effectively. At the same time, it supports students by offering personalized learning experiences (Tomlinson, 2014).

This means that learners can receive content that matches their level, pace and individual needs.

In language learning, AI plays an important role in developing several skills as reading, writing, listening and speaking (Stockwell, 2022).

For example, AI tools can correct grammar mistakes, suggest appropriate vocabulary and provide instant feedback (Warschauer & Grimes, 2008, as cited in Grammarly, 2024).

They can also generate texts, adapt reading materials and guide students step by step in their learning process.

This makes learning more interactive, engaging and less stressful for students.

Another important advantage of AI is that it allows students to practice independently. Learners can use AI tools anytime and anywhere, which increase their opportunities to learn outside the classroom.

This flexibility is especially useful for students who need more time or support to improve their skills.

However, despite its many advantages, AI should be used carefully in education. It is important to combine AI tools with teacher guidance to ensure effective learning.

AI should support learning, not replace the role of the teacher.

In conclusion, Artificial Intelligence is a powerful and evolving technology that is transforming many fields, including education (UNESCO, 2023, Haftae & Karakus, 2025).

It provides new opportunities to make learning efficient and accessible, especially for language learners who need continuous practice and support.

2.2.2 AI in Language Learning:

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Artificial Intelligence (AI) is increasingly used in language learning to support students in developing the four skills in English “reading, writing, speaking and listening” (Stockwell, 2022).

It has become an important tool because it offers new ways to enhance the learning process. AI-based tools in applications are designed to aid learners practice the language in a more interactive and engaging way (Chokalingam & Annamalai, 2025).

One of the main advantages of AI in language learning is its ability to provide instant feedback. Students can receive immediate corrections for their grammar, vocabulary and pronunciation which helps them understand their mistakes and improve quickly (Warschauer & Grimes, 2008). This is especially useful for writing where learners need continuous feedback to expand their skills. In addition, AI tools can personalize learning experience.

This means that the content and activities can be adapted to match each students’ level, needs and pace of learning (Tomlinson, 2014).

According to Rose Luckin (2016), AI can evolve learning by adapting materials to suit learners’ abilities and making the learning process more productive and meaningful.

AI also supports students by providing practice opportunities outside the classroom (Karakus, 2025). Learners can use AI tools anytime and anywhere which increases their exposure to the language and allows them to practice more frequently.

This flexibility aids students become more independent and responsible for their own learning (Reinders & Benson, 2017).

Moreover, AI can make language learning more interactive and motivating.

Many AI tools include features like games, quizzes and real-time interaction which make learning less boring and more enjoyable.

This can increase students' motivation and encourage them to participate more actively in their learning process (Ryan & Deci, 2000).

In the context of writing, AI tools can help students generate ideas, organize their thoughts and enhance their sentence structure (Hyland, 2019).

They can also provide adapted texts and examples that guide learners step by step (Sarica, 2025).

This makes writing easier, especially for EFL students who often struggle with expressing their ideas. However, it is necessary to note that AI should be used as a supporting tool rather than replacing a key role in guiding students, explaining concepts and providing human interaction (Moorhouse et al., 2023).

In conclusion, AI has become a valuable tool in language learning (Holmes et al., 2023).

It assists make learning more personalized, flexible and effective (Tomlinson, 2014), also it offers strong support for students in improving their language skills, especially writing (Warschauer & Grimes, 2008, Stockwell, 2022).

2.2.3 AI and Writing Development:

Artificial Intelligence (AI) tools help student become better at writing, especially in the English as a Foreign Language (EFL) context.

These tools provide various forms of support that help students improve their writing in a more interactive way.

However, one of the main advantages of AI in writing is its ability to aid students generate ideas.

Many learners struggle at the beginning of writing tasks because they do not know what to write.

AI tools can suggest topics, provide examples and guide students in organizing their thoughts, this helps learners start writing more easily and reduce anxiety (Cen, 2026, as cited in Yildiz, 2026).

AI tools also assist students in checking grammar and correcting errors. They can identify mistakes in sentence structure, verb tense, spelling and punctuation.

By receiving immediate feedback, students can learn from their errors and avoid repeating them (Almusharraf, 2026).

This continuous correction helps enhance the accuracy and quality of their writing over time. AI can suggest better word choices, more appropriate expressions and clearer sentence forms, this allows learners to produce more coherent and well-structured texts.

AI tools can also provide models of good writing which students can use as examples to develop their own work.

According to Dobrin (2026), AI is transforming writing practices by making them more accessible and learner-centered.

This means that students are no longer limited to classroom instruction, they can receive motivation anytime and anywhere (Ridgeway, 2026).

As a result, they have more opportunities to practice writing and improve their skills independently.

2.2.4 Ethical Considerations and Challenges of AI in EFL Writing:

2.2.4.1 The Redefinition of Plagiarism and the Evaluation of Authorship:

The rapid integration of Artificial Intelligence (AI) and large language models into educational settings has fundamentally disrupted traditional notions of academic integrity and text authorship.

In the context of EFL writing, a primary ethical concern is AI-plagiarism or AI-giarism, the unauthorized generation of continuous academic text by AI tools, which students then submit as their own original work (Sullivan et al., 2023).

Unlike traditional plagiarism, which involves copying existing human-authored texts and can be easily detected by matching database algorithms, AI-generated content is syntactically unique and mathematically dynamic, making it notoriously difficult for standard plagiarism detection software to flag accurately (Perkins, 2023).

This creates a severe pedagogical dilemma. When an EFL learner submits a text entirely drafted by AI tool, the instructor cannot accurately assess the student's actual inter language development or diagnose their specific linguistic needs.

Moreover, it shifts the writing process from an act of active cognitive construction to passive text retrieval, undermining the very purpose of writing tasks as mechanisms for language consolidation (Cotton et al., 2024).

Consequently, educational institutions are forced to redefine plagiarism, moving away from purely punitive measures toward establishing clear ethical guidelines that distinguish between acceptable AI assistance and unethical AI substitution (Flower & Hayes., 2023, as cited in Moorhouse et al., 2023).

2.2.4.2 Cognitive Atrophy, Over-Reliance, and the Loss of Learners Agency:

Beyond academic dishonesty, the pervasive availability of AI assistant introduces significant cognitive and development risks, most notably cognitive atrophy and learner over-reliance.

Writing is inherently a recursive, effortful process that stimulates cognitive development by forcing learners to map concepts into syntactic structure (Flower & Hayes, 1981).

When EFL students systematically rely on AI tools to generate ideas, correct grammatical mistakes, organize paragraphs, or adapt complex reading texts for them, they risk by passing the necessary “desirable difficulties” that facilitate deep learning (Yan et al., 2024).

This over-reliance can lead to a severe attenuation of the students' independent writing capabilities.

In second language acquisition, linguistic competence is built through active problem-solving, it is wrestling with vocabulary choice, negotiating meaning, and self-correcting grammatical errors.

When AI automates these processes, the learners' cognitive load is reduced, but at the cost of genuine skill acquisition (Orlova, 2025).

Over time, students may experience a regression in their ability to formulate arguments or draft texts without digital intervention, a phenomenon known as a cognitive weakness.

At the same time, this reliance evokes a deep feeling loss of learner agency and voice. Agency in writing refers to the student's ownership over their ideas, rhetorical choices, and personal expression.

When AI tools change student writing to fit standard machine patterns, the unique cultural style and individual voice of the EFL writer is lost (Jones, 2025).

Students lose their independence as learners.

Instead of actively creating meaning, they become passive consumers of text generated by a machine.

This lack of independence ultimately weakens their writing confidence, making them rely on computer programs rather than developing trust in their own growing language skills.

2.2.4.3 Challenges of Using AI in EFL Writing:

Finally, using AI in EFL writing brings challenges regarding bias, digital fairness, and data privacy.

Firstly, major AI models are trained mostly on western and standard English datasets.

Because of this, these systems often have a bias against non-native writing styles.

Sometimes, they mark correct, culturally unique expressions or different rhetorical styles as mistakes (Luckin et al., 2016, as cited in UNESCO, 2023).

This can make EFL learners feel disconnected and reinforces a rigid view of language that ignores cultural differences in writing.

Secondly, digital fairness is still a major problem. Many advanced AI writing tools and helpful features are not free require fast Internet.

This creates a digital divide. Students with more money get access to advanced learning support, while poorer students are left behind, which increases educational inequality (Selwyn, 2019).

Lastly, data privacy is a serious risk. When students paste their essays or teachers upload lesson plans into free AI tools like Diffit or ChatGPT, their work is often collected.

This personal data and intellectual property are then used to train commercial models without clear permission from the school or university (Zawacki-Richter et al., 2019, as cited in Holmes et al., 2023).

2.3 Text Adaptation in Language Learning:

2.3.1 Definition of Text Adaptation:

Text adaptation refers to the process of modifying or changing a text in order to make it easier, clearer, and more suitable for a learners' specific language proficiency level and pedagogical needs.

It is commonly used in language learning to help students comprehend text more effectively without altering the core meaning or communication goals of the original content.

Text adaptation can include simplifying difficult vocabulary, shortening long or compound sentences, explaining complex conceptual ideas, or reorganizing information in a clear and logical way.

Teachers and educational tools may also add contextual examples, supportive visuals, or comprehension questions to reinforce a learners' understanding.

The principal goal of text adaptation is to make learning materials more accessible and less cognitively challenging for students.

In EFL learning, many students face severe difficulties when reading authentic, advanced texts because they contain unfamiliar vocabulary and complex grammatical structures.

As a result, learners may lose motivation or fail to understand the content. Adapted texts reduce these difficulties by presenting information in a simpler and more understandable form, it allows students to learn gradually according to their current level.

Besides that, when learners comprehend texts more easily, they can simultaneously improve their vocabulary, reading comprehension, and writing skills with greater confidence.

Ultimately, adapted materials encourage students to participate actively in learning process.

Today, text adaptation has become significantly more efficient with the use of dedicate Artificial Intelligence tools, such as Diffit AI, which can rapidly adjust reading materials to various targeted reading levels while preserved the original meaning and instructional intent of the passage (Whaley, 2026).

2.3.2 Role of Adapted Texts in Learning:

Adapted texts play an important role in language learning because they help students understand content easily.

When learners work with texts that match their specific proficiency level, they experience higher levels of confidence and increased motivation to learn (Day & Bamford, 1998, as cited in Luis, 2024).

Adapted texts also aid students learn new vocabulary, grammar, and sentence structures step by step.

Through reading understandable materials, learners can increase both their reading comprehension and writing skills (Petersen & Ostendorf, 2007, as cited in Le, 2011).

By complexity, text modification processes make linguistic items digestible, thereby helping beginning and intermediate readers acquire new structures without overwhelming their working memory (Rebello et al., 2019).

In addition, adapted texts encourage students to participate more actively in classroom activities and effectively develop their long-term language abilities.

2.3.3 Theoretical Basis (Input Hypothesis):

The concept of text adaptation is supported by Stephen Krashen's (1985) foundational Input Hypothesis.

According to this theory, students acquire a language more actively when they receive "comprehensible input" that is categorized at a level slightly above their current level of understanding.

This means that learners should be exposed to language that is understandable but still contains some new elements to help them progress.

Text adaptation supports this idea by simplifying texts and making them more suitable for learners' level (Lee, 2011).

When students can comprehend the content simply, they become more motivated with target language (Rodrigo, 2024).

Adapted texts also make learners acquire new words and language structure.

Therefore, texts adaptation is considered an effective way to support language learning and improve students comprehension and writing skills.

2.4 Diffit AI as a Learning Tool:

2.4.1 Overview of Diffit AI:

Diffit AI is a modern educational tool that uses Artificial Intelligence to adapt texts quickly and easily according to students' learning level and needs (Heftae & Karakus, 2025).

It is designed to help teachers create simplified and personalized learning materials without spending too much time preparing them manually (Sarica, 2025).

This tool can modify vocabulary, sentence structure, and the difficult level of texts, while keeping the original meaning (UNESCO, 2023).

It provides activities, questions and summaries that support students' understanding. Diffit AI is especially useful in language learning because it helps learners work with texts that are appropriate for their level, making learning easier (Bin-Hady et al., 2023).

Moreover, Diffit AI supports personalized learning by allowing students to learn at their own pace, this can increase students' motivation, comprehension and confidence, especially in writing and reading activities (Moorhouse et al., 2023).

2.4.2 Features of Diffit AI:

Diffit AI offers several useful features that support both teachers and students in the learning process.

One of its main advantages is simplifying complex texts to make them easier for learners to understand (Haftae & Karakus, 2025).

It can also adjust the level of difficulty according to students' language abilities and needs (Sarica, 2025).

However, Diffit AI provides questions, summaries and activities related to the texts which helps students improve their comprehension and practice language skills (Bin-Hady et al., 2023).

Another important feature is saving time for teachers and students by generating adapted materials (UNESCO, 2023).

These features make Diffit AI a practical item for language learning.

2.4.3 Benefits of Using Diffit AI in Writing:

Using Diffit AI can assist students enhance their writing skill in several ways.

When students comprehend texts easily, they can learn new vocabulary, grammar structure and writing styles (Hyland, 2019).

Also adapted texts provide learners with understandable input which helps them evolve their language skills gradually (Karakus, 2025).

Moreover, Diffit AI reduces frustration caused by difficult texts and makes learning more enjoyable.

This can increase students' support and encourage them to participate more actively in writing activities (Ryan & Deci, 2000).

The tool also assist student become reassured because they can practice writing with materials that match their level (Tomlinson, 2014).

Furthermore, by working with adapted texts regularly, students can enhance their ability to organize ideas, build correct sentences and express themselves more clearly in English (Sarica, 2025).

As a result, Diffit AI can support both writing development and overall language learning.

2.4.4 AI Support and Personalized Learning:

2.4.4.1 How AI Gives Support to Students:

There are several important ways that Artificial Intelligence (AI) provides direct support to language learners to improve their skills.

Furthermore, AI tools offer instant and detailed feedback by analyzing student text in real time, highlighting grammar mistakes, and explaining how to fix them immediately to keep learners motivated (Warschauer & Grimes, 2008, as cited in Chockalingam & Annamalai, 2025).

Thus, AI lowers language barriers by automatically simplifying difficult reading texts, changing complex vocabulary into shorter, easier sentences so EFL students can understand the main ideas without experiencing cognitive overload (Heftae & Karakus, 2025, as cited in Sarica, 2025).

Therefore, AI gives excellent structural scaffolding by providing sentence starters and writing prompts, which helps students overcome writers' block and organize their thoughts logically (Hyland, 2019).

Because of these digital platforms are available, AI supports independent learning outside the classroom, allowing students to practice writing in a private, stress-free environment anytime they want, which builds their autonomy and confidence (Reinders & Benson, 2017, as cited in Karakus, 2025).

2.4.4.2 Differentiated Instruction through Dynamic Text Adaptation

Every EFL classroom has students with mixed abilities, some learn quickly, while others need more time and simpler explanations.

Differentiated instruction is an educational approach where teachers change their teaching content, processes, or materials to match each students' specific learning level (Tomlinson, 2014).

In contrast, AI tools are perfect for differentiated instruction because they can adapt the same reading or writing topic into multiple difficulty levels.

If a teacher wants the whole class to write a descriptive essay about a historical event, they can use AI to generate three different versions of the background text:

- ✓ A simple version for beginners.
- ✓ A medium version for intermediate students.
- ✓ And an advanced version for high-achieving students (UNESCO, 2023).

This ensures that all students understand the core ideas and can participate in the writing task without feeling overwhelmed or bored (Rose Luckin et al., 2016).

By using AI to personalize create a fairer and more effective learning environment for everyone.

2.4.5 Stages of the AI-Assisted Writing:

Process Writing is not done in just one step; it is a process that has different stages (Flower & Hayes, 1981).

When students use Artificial Intelligence (AI) tools like Diffit AI, this tool helps and supports them at every stage of their writing.

We can divide this AI-assisted writing process into three simple stages:

- ✚ The Pre-Writing Stage (Getting Ready) in traditional classes, many students find it hard to start writing because they do not have enough vocabulary or ideas.

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In this stage, Diffit AI helps by providing "comprehensible input" which means easy and understandable texts (Krashen, 1985).

The teacher uses Diffit AI to change a difficult text into a simple one that matches the level of Third-year Licence students.

Diffit AI also gives a list of important words, definitions, and short questions.

This helps students learn new words and understand the topic before they start writing (Sarica, 2025).

✚ The While-Writing Stage (Drafting and Writing) in this stage, students start writing their own paragraphs or essays.

They use the simple words and sentence structures that Diffit AI provided in the first stage.

Because the AI tool made the text easy to understand, students do not waste time struggling with difficult words. Instead, they can focus their energy on organizing their ideas, writing correct sentences, and making their paragraphs clear (Schoonen et al., 2003).

The adapted text from Diffit AI acts as a guide or a model for them while they write.

✚ The Post-Writing Stage (Checking and Improving) the last stage is about reviewing, correcting, and evaluating the writing.

This stage is very important for language learning because it helps students see their mistakes (Swain, 1985).

After finishing their paragraphs, students look back at the adapted text from Diffit AI to check if they used the correct grammar and vocabulary.

Teachers can also use the activities generated by Diffit AI to see if students improved.

This makes students more independent, confident, and responsible for their own learning (Karakuş, 2025).

2.5 Previous Studies:

Previous studies have shown that Technology and AI tools can play a necessary role in students' writing skills (Stockwell, 2022).

Many researchers agree that learners benefit from digital tools that provide support, feedback and adapted learning materials (Warschauer & Grimes, 2008, as cited in Chockalingam & Annamalai, 2025), for example Dana Ferris (2002) found that students improve their writing when they receive guided support, clear input and continuous feedback.

This support aids learners identify their mistakes and evolve better writing strategies.

Other studies indicate that adapted materials help students understand texts simply and produce more accurate and organized writing (Haftae & Karakus, 2025).

When learners work with materials that match their level, they become confident and motivated to participate in writing activities (Tomlinson, 2014).

Therefore, research on AI in education highlights its role in making learning more interactive, personalized and effective.

AI tools allow students to learn at their own pace and receive immediate support during the learning process (Moorhouse et al., 2023).

These findings support the idea that using tools like Diffit AI can positively influence student's writing development and make learning more engaging for EFL learners (Sarica, 2025).

2.6 Conclusion:

This chapter has discussed the main concepts related to the study, including writing skills, Artificial Intelligence in education and text adaptation in language learning.

It has explained the importance of writing in EFL contexts, the genres of writing and the main difficulties that students face when learning to write in English.

Chapter Two: Artificial Intelligence and Text adaptation in Language Learning

The chapter has also presented Artificial Intelligence as an important educational tool that can support language learning through personalized and interactive methods.

In addition, it introduced Diffit AI as a useful tool for adapting texts and helping students improve their writing skills.

Furthermore, the review of previous studies has shown that both AI tools and adapted materials can positively affect students' comprehension, motivation and writing performance.

Overall, this chapter provides the theoretical foundation for the study and highlights the importance of integrating AI tools into language learning.

The next chapter will focus on the research methodology used to investigate the effectiveness of Diffit AI on students' writing skills.



Part Two:
Practical Part

Chapter Three:

Data Analysis and Discussion of Results

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Introduction:

This chapter outlines the methodological framework and presents a comprehensive analysis of the data collected to investigate the effectiveness of Diffit AI in enhancing writing skills among third-year EFL students at the University of Ghardaïa.

This chapter describes the research design, sample, data collection tool, and provides a detailed analysis of the questionnaire responses.

The findings are then discussed in relation to the research questions and hypotheses, followed by pedagogical recommendations and a conclusion that synthesizes the findings.

3.1 Research Design:

Consistent with the general introduction, this study adopts a quantitative descriptive research design.

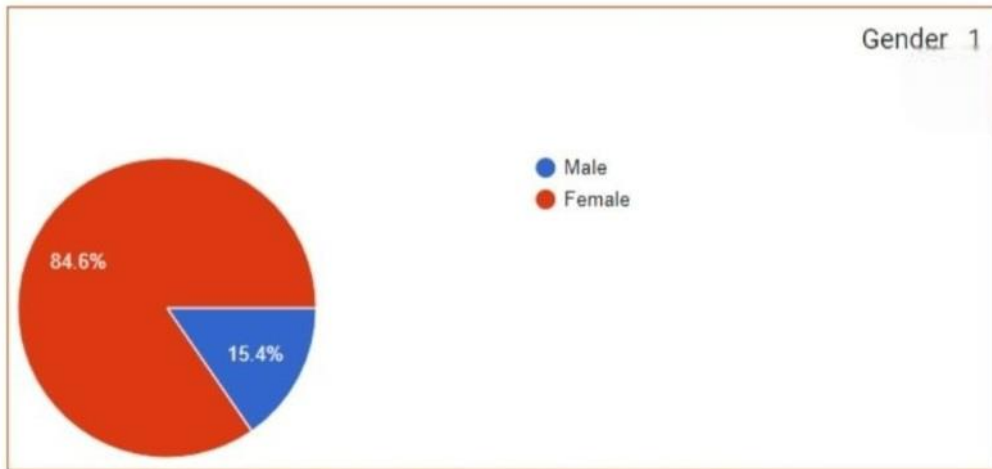
A structured questionnaire was administered to third-year Licence students following their exposure to the Diffit AI tool for text adaptation.

This design is appropriate for exploring students' perceptions, attitudes, and self-reported practices regarding the use of AI tools in writing instruction.

3.2 Research Sample:

The sample consists of 40 third-year English students at the University of Ghardaïa. Participants were selected from the population of EFL learners enrolled in writing modules during the academic year. The demographic distribution is as follows:

3.2.1 Gender Distribution:



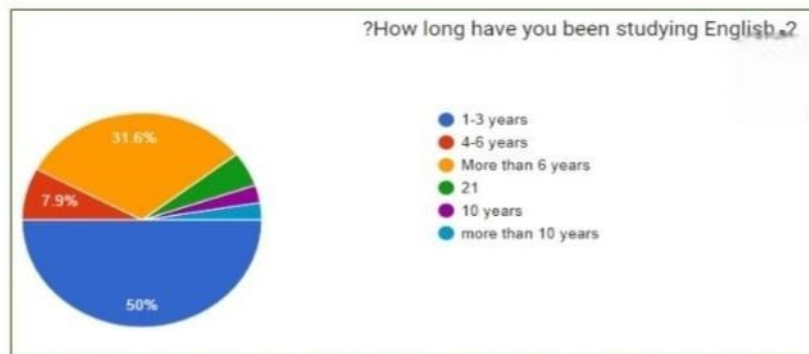
Graphic 3.1: Distribution of Participants by Gender

Gender	Frequency	Percentage
Male	6	15.0%
Female	34	85.0%
Total	40	100%

Table 3.1: Gender Distribution of the Sample

Table 3.1 shows that the majority of the sample consists of female students (34 out of 40, representing 85%), while male students constitute only 15% (6 students). This gender imbalance is typical in EFL literature cohorts at Algerian universities, where female enrollment in English studies often exceeds male enrollment.

3.2.2 Duration of English Study:



Graphic 3.2: Distribution of Participants by Duration of English Study

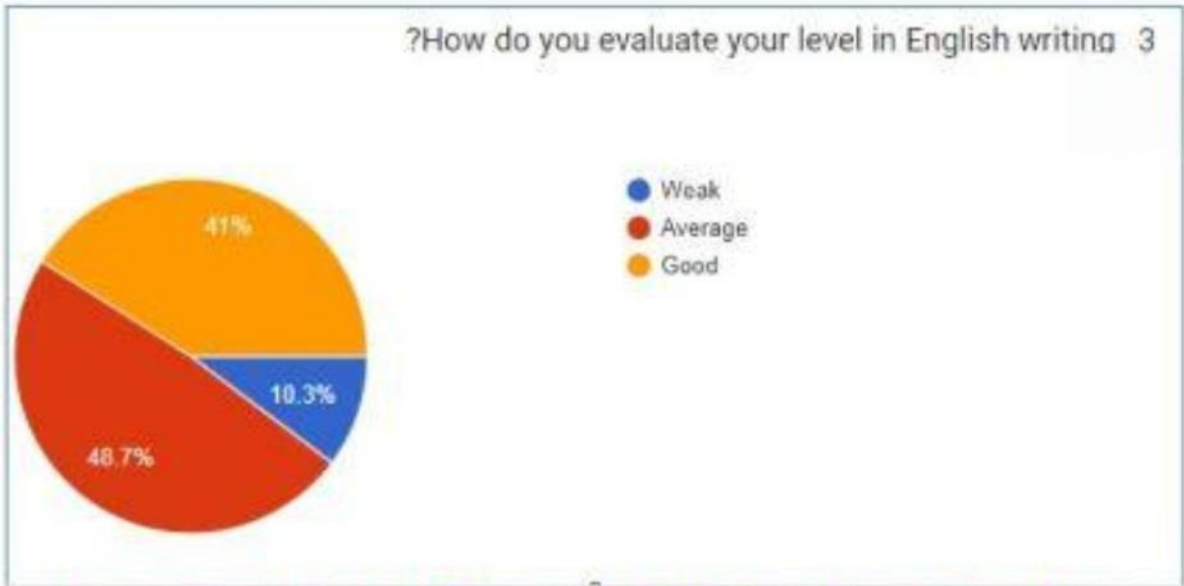
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Duration	Frequency	Percentage
1-3 years	17	42.5%
4-6 years	7	17.5%
More than 6 years	14	35.0%
More than 10 years	2	5.0%
Total	40	100%

Table 3.2: Duration of English Study

Table 3.2 reveals that the largest group of students (42.5%) have been studying English for 1-3 years, which corresponds to the typical duration of university-level English instruction for third-year students. A significant proportion (35%) have studied English for more than 6 years, indicating prior English exposure before university.

3.2.3 Self-Reported English Writing Level:



Graphic 3.3: Distribution of Participants by Self-Reported English Writing Level

Level	Frequency	Percentage
Good	12	30.0%
Average	20	50.0%
Weak	7	17.5%
No response	1	2.5%
Total	40	100%

Table 3.3: Self-Reported English Writing Level

Table 3.3 indicates that half of the students (50%) perceive their English writing level as "Average," while 30% consider themselves "Good." Only 17.5% rate their level as "Weak." This distribution suggests that the majority of students have a positive or neutral perception of their writing abilities.

3.3 Data Collection Tool:

The data collection instrument is a structured questionnaire comprising 17 items divided into **three** main sections:

- ✚ **Section One:** General information (gender, duration of English study, self-reported writing level) : Questions 1-3
- ✚ **Section Two:** Writing difficulties and habits (perceived difficulty, main difficulties, frequency of writing practice) : Questions 4-6
- ✚ **Section Three:** Use of Diffit AI (experience, frequency of use) : Questions 7-8
- ✚ **Section Four:** Perceptions of Diffit AI's effectiveness (5 Likert-scale items) : Questions 9-12
- ✚ **Section Five:** Attitudes toward AI tools (3 Likert-scale items and 1 yes/no question) : Questions 13-15.
- ✚ **Section Six:** Open-ended questions (perceived benefits and problems) : Questions 16-17

The questionnaire was administered digitally via Google Forms, and responses were collected anonymously.

3.4 Data Analysis:

Data analysis was conducted using both quantitative (descriptive statistics: frequencies, percentages) and qualitative (thematic analysis of open-ended responses) methods.

For quantitative data, responses were entered into Microsoft Excel, and frequency distributions and percentages were calculated for each item.

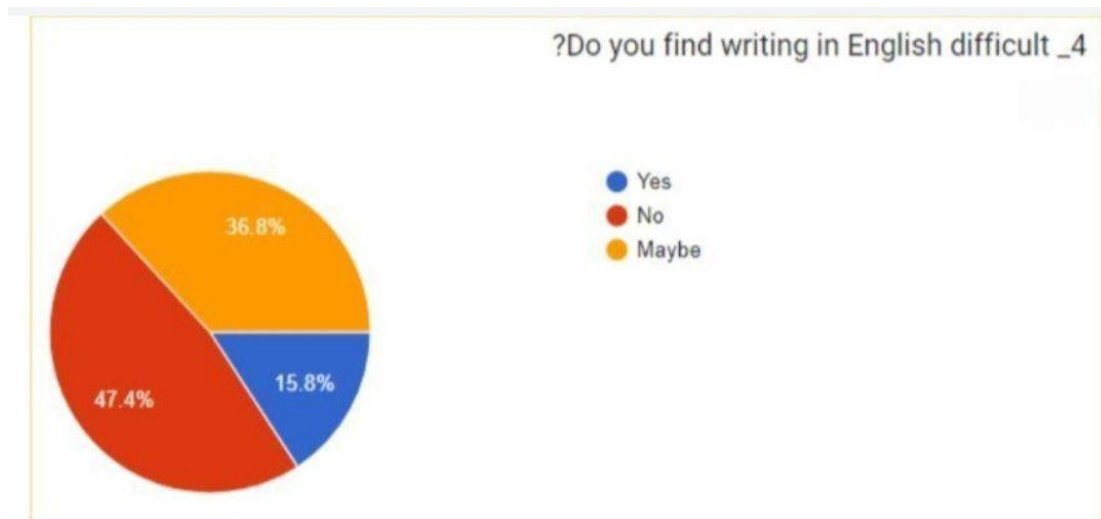
3.4.1 Section One: General Information

This section aimed to collect demographic data about the participants, including gender, duration of English study, and self-reported English writing level.

As detailed in the Research Sample section (Tables 3.1, 3.2, and 3.3), the sample consisted of 40 third-year EFL students: 34 females (85%) and 6 males (15%); 17 students (42.5%) have studied English for 1-3 years, 7 (17.5%) for 4-6 years, 14 (35%) for more than 6 years, and 2 (5%) for more than 10 years; 12 students (30%) rated their English writing level as "Good," 20 (50%) as "Average," and 7 (17.5%) as "Weak." These demographic characteristics provide the context for interpreting the subsequent findings.

3.4.2 Section Two: Writing Difficulties and Habits

This section aimed to identify students' perceptions of writing difficulty, the specific challenges they face, and their frequency of writing practice.



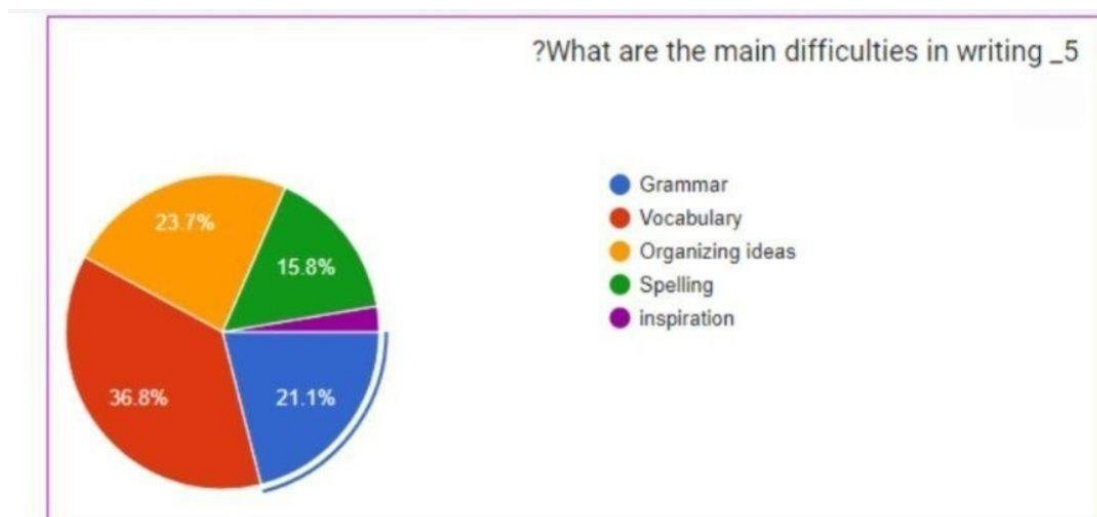
Graphic 3.4: Students' Perceived Difficulty of Writing in English

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Response	Frequency	Percentage
Yes	9	22.5%
No	18	45.0%
Maybe	12	30.0%
No response	1	2.5%
Total	40	100%

Table 3.4: Perceived Difficulty of Writing in English

Table 3.4 shows that only 22.5% of students explicitly find writing in English difficult, while 45% do not find it difficult. Notably, 30% responded "Maybe," indicating uncertainty or mixed feelings about their writing difficulties.



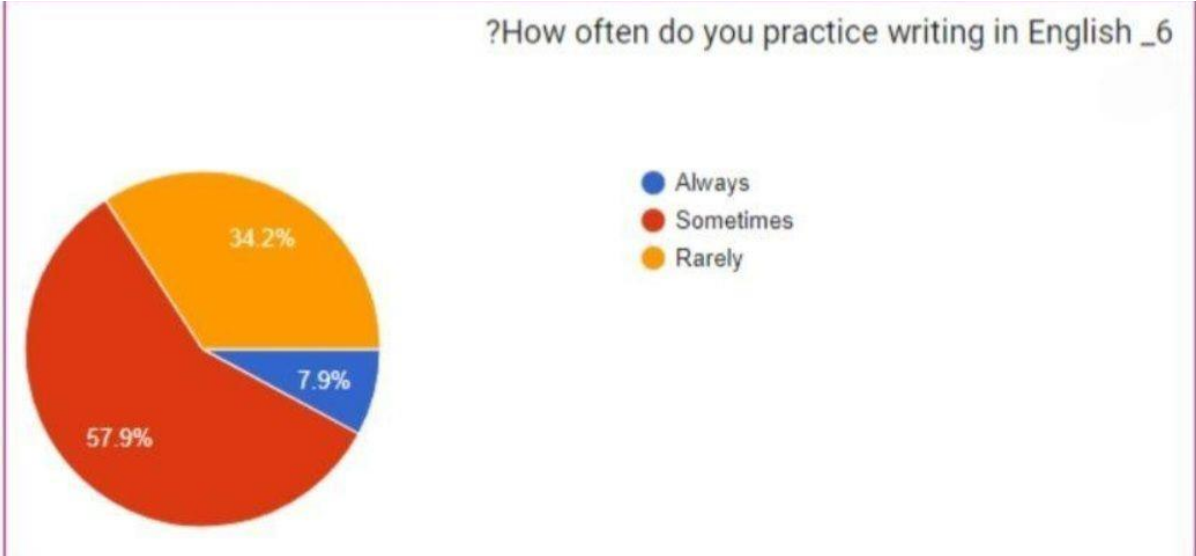
Graphic 3.5: Students' Main Difficulties in Writing.

Difficulty	Frequency	Percentage
Vocabulary	16	40.0%
Grammar	9	22.5%
Organizing ideas	11	27.5%
Spelling	7	17.5%
Other (inspiration)	1	2.5%

Table 3.5: Main Difficulties in Writing (Multiple Responses)

Table 3.5 reveals that vocabulary is the most frequently reported difficulty, cited by 40% of students.

This is followed by organizing ideas (27.5%) and grammar (22.5%). Spelling was mentioned by 17.5% of students.



Graphic 3.6: Frequency of Writing Practice.

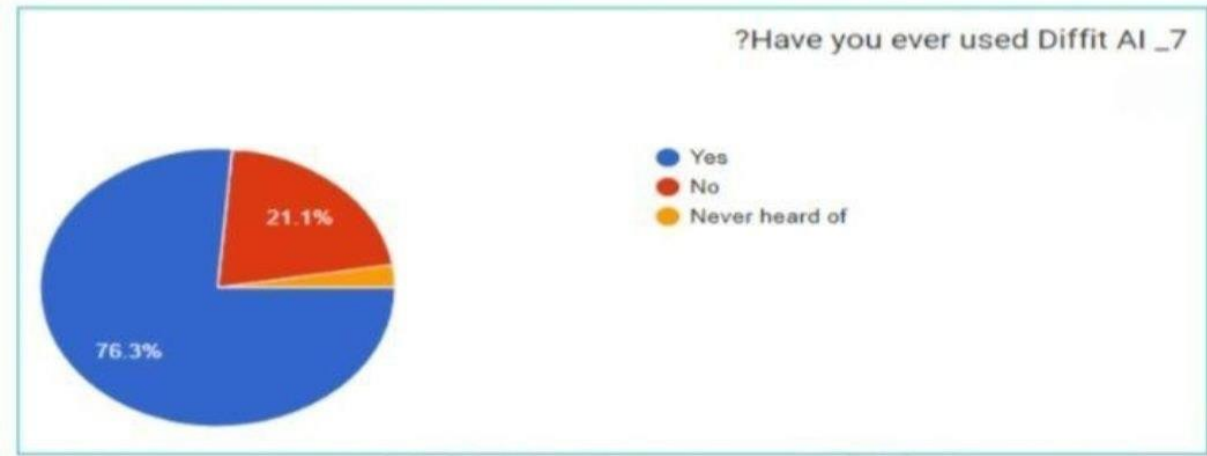
Frequency	Frequency	Percentage
Always	3	7.5%
Sometimes	24	60.0%
Rarely	12	30.0%
No response	1	2.5%
Total	40	100%

Table 3.6: Frequency of Writing Practice in English

Table 3.6 indicates that the majority of students (60%) practice writing "sometimes," while 30% practice "rarely." Only 7.5% practice writing "always."

3.4.3 Section Three: Use of Diffit AI

This section aimed to determine students' familiarity with Diffit AI and the frequency of their use.



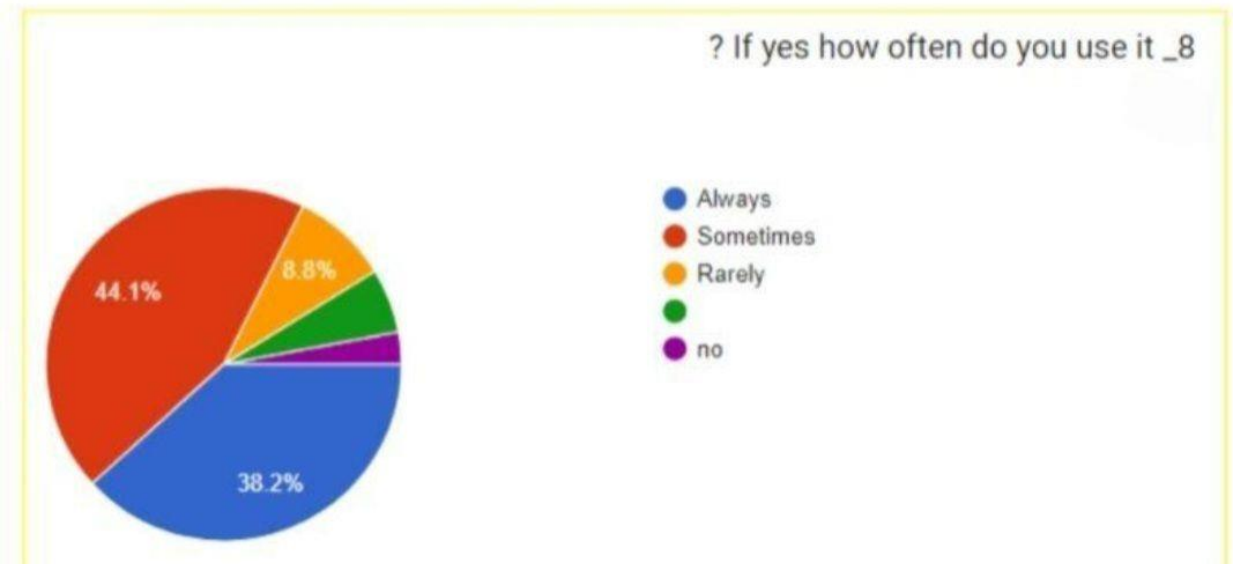
Graphic 3.7: Students' Experience with Diffit AI

Response	Frequency	Percentage
Yes	31	77.5%
No	6	15.0%
Never heard of	1	2.5%
No response	2	5.0%
Total	40	100%

Table 3.7: Have You Ever Used Diffit AI?

Table 3.7 shows that a substantial majority of students (77.5%) have used Diffit AI, while only 15% have not.

One student had never heard of the tool.



Graphic 3.8: Frequency of Diffit AI Use (Among Users)

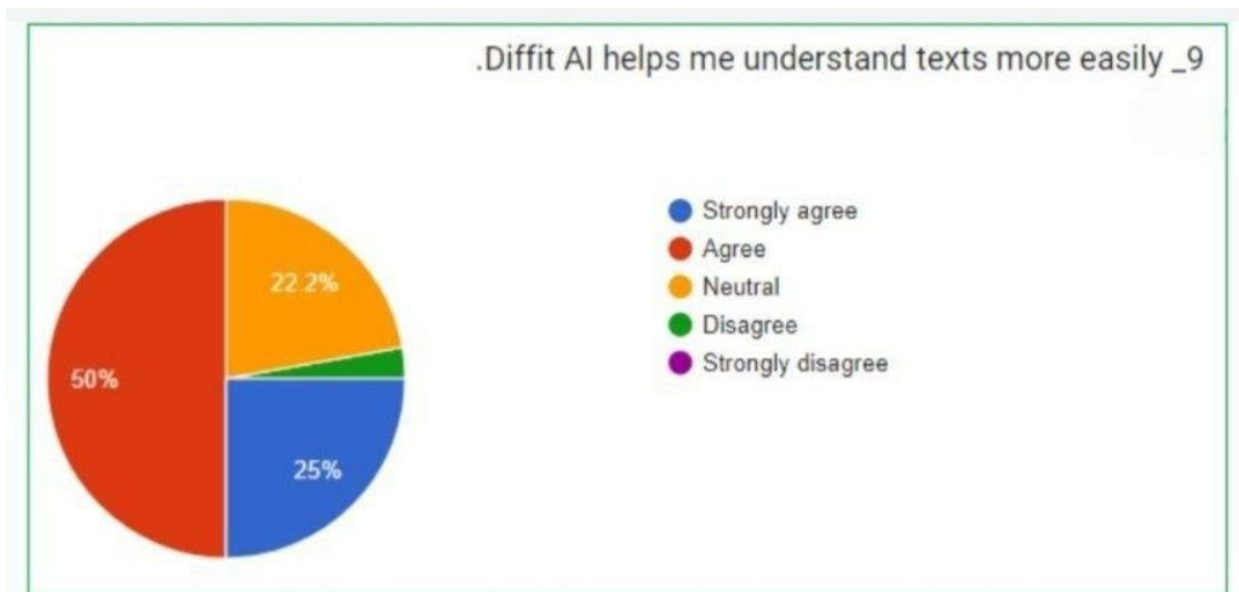
Frequency	Frequency	Percentage (of users)
Always	11	35.5%
Sometimes	12	38.7%
Rarely	5	16.1%
No response	3	9.7%
Total	31	100%

Table 3.8: Frequency of Diffit AI Use (Among Users)

Table 3.8 indicates that among the 31 students who have used Diffit AI, the majority use it regularly: 35.5% use it "always," and 38.7% use it "sometimes." Only 16.1% use it "rarely."

3.4.4 Section Four: Perceptions of Diffit AI's Effectiveness

This section aimed to measure students' perceptions of the effectiveness of Diffit AI in enhancing various aspects of writing.



Graphic 3.9: Students' Agreement with Statements About Diffit AI.

Statement	SA	A	N	D	SD	No response	% Agree (SA+A)
Diffit AI helps me understand texts more easily.	12 (30%)	18 (45%)	6 (15%)	1 (2.5%)	1 (2.5%)	2 (5%)	75.0%
Diffit AI helps improve my vocabulary.	9 (22.5%)	22 (55%)	5 (12.5%)	1 (2.5%)	1 (2.5%)	2 (5%)	77.5%
Diffit AI helps me write better sentences.	11 (27.5%)	17 (42.5%)	5 (12.5%)	4 (10%)	1 (2.5%)	2 (5%)	70.0%
Diffit AI makes writing easier for me.	11 (27.5%)	17 (42.5%)	5 (12.5%)	4 (10%)	1 (2.5%)	2 (5%)	70.0%

Table 3.9: Students' Perceptions of Diffit AI (N=40)

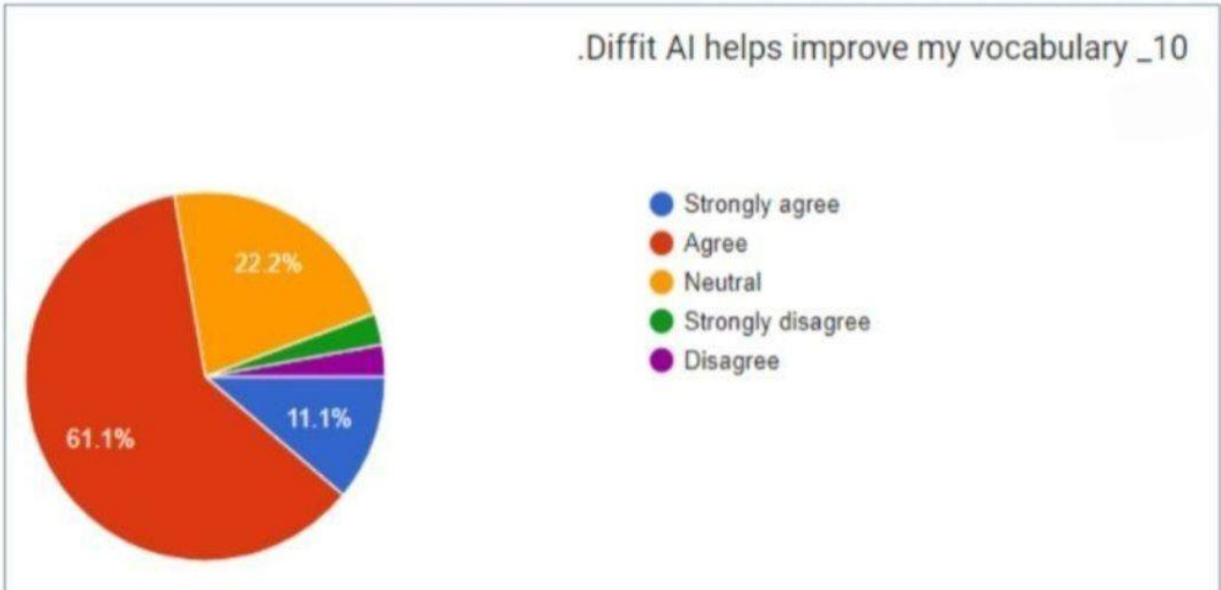
Table 3.9 shows overwhelmingly positive perceptions of Diffit AI.

Understanding texts more easily received 75% agreement, while vocabulary improvement received the highest approval rating (77.5%).

Writing better sentences and making writing easier both received 70% agreement.

3.4.5 Section Five: Attitudes Toward AI Tools

This section aimed to measure students' general attitudes toward AI tools in learning English, including their overall liking, perceptions of interest, and preferences regarding teacher guidance.



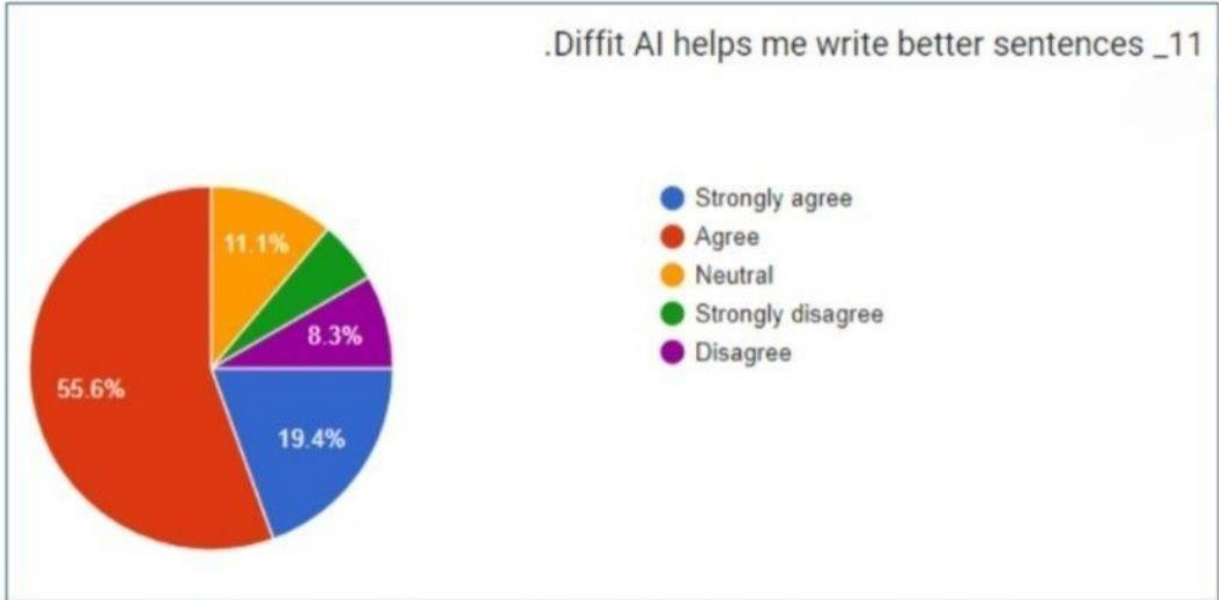
Graphic 3.10: Students' Attitudes Toward AI Tools.

Response	Frequency	Percentage
Yes	33	82.5%
No	3	7.5%
No response	4	10.0%
Total	40	100%

Table 3.10: Do You Like Using AI Tools in Learning English?

Table 3.10 reveals that an overwhelming majority of students (82.5%) like using AI tools in learning English, while only 7.5% expressed dislike.

This finding indicates a strong positive attitude toward AI integration in language learning, which is consistent with the high usage rates reported earlier.



Graphic 3.11: Students' Agreement that AI Tools Make Learning More Interesting.

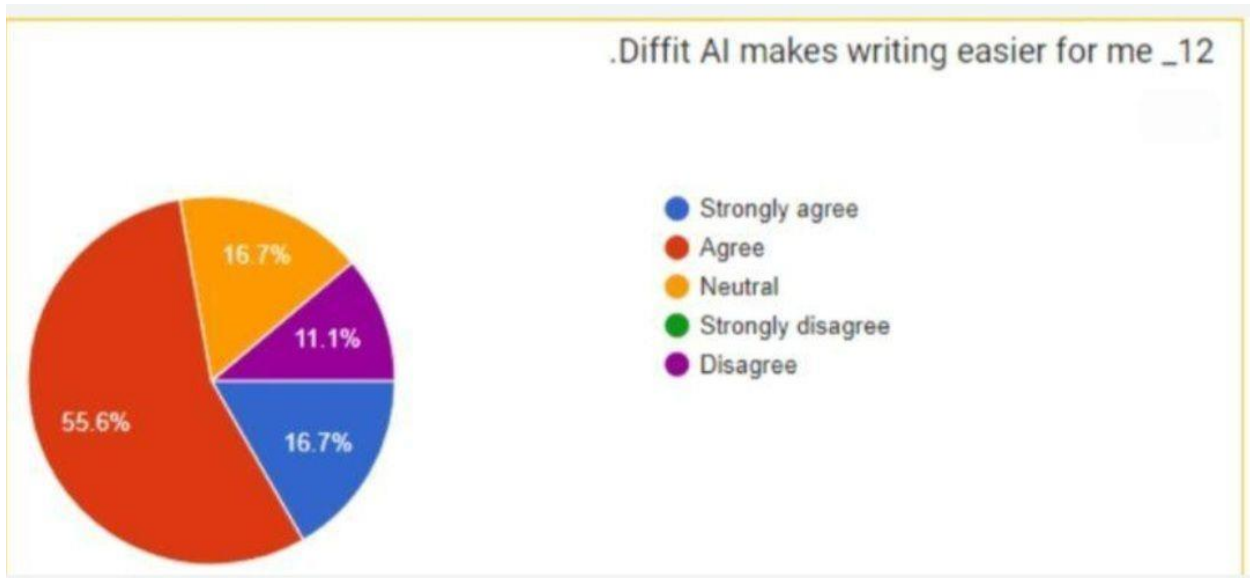
Response	Frequency	Percentage
Strongly Agree	13	32.5%
Agree	15	37.5%
Neutral	7	17.5%
Disagree	2	5.0%
Strongly Disagree	1	2.5%
No response	2	5.0%
Total	40	100%

Table 3.11: AI Tools Make Learning More Interesting (N=40)

Table 3.11 shows that 70% of students agree or strongly agree that AI tools make learning more interesting.

Only 7.5% expressed disagreement, while 17.5% remained neutral.

This finding supports the motivational value of AI tools in the EFL classroom.



Graphic 3.12: Students' Preference for Teacher Guidance When Using AI Tools

Response	Frequency	Percentage
Strongly Agree	7	17.5%
Agree	16	40.0%
Neutral	10	25.0%
Disagree	4	10.0%
Strongly Disagree	1	2.5%
No response	2	5.0%
Total	40	100%

Table 3.12: I Prefer Using AI Tools with My Teacher's Guidance (N=40)

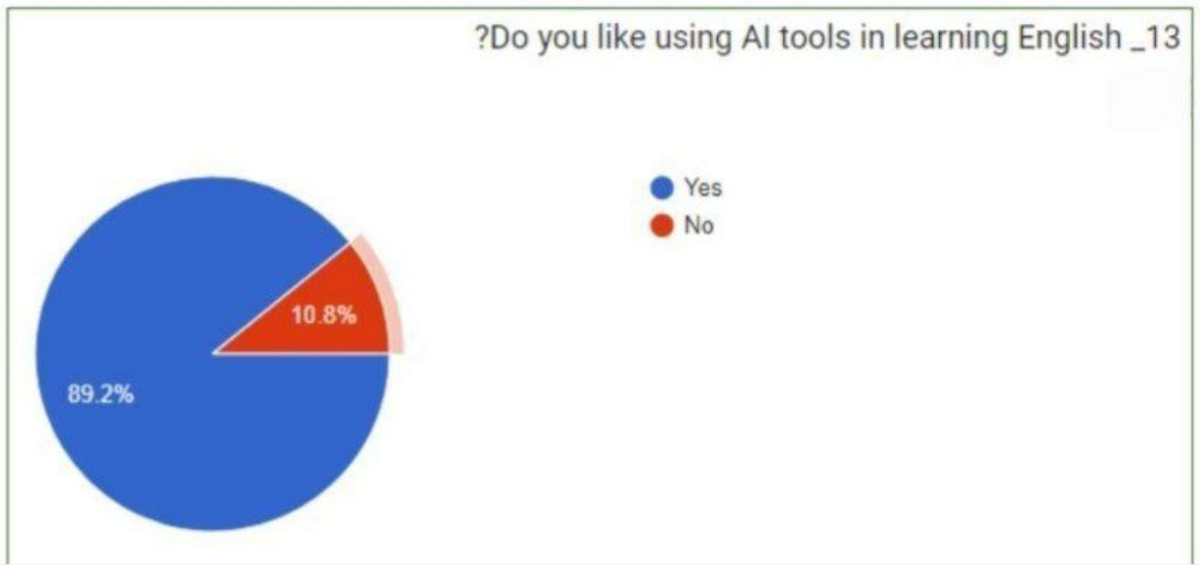
Table 3.12 indicates that 57.5% of students prefer using AI tools with their teacher's guidance, while 12.5% disagree with this statement.

A notable 25% remained neutral. This finding suggests that while students are comfortable with AI tools, many still value the role of the teacher in guiding their use.

This aligns with the socio-affective dimension of learning, where teacher support and scaffolding remain important even when technology is integrated into instruction.

3.4.6 Section Six: Open-Ended Questions

This section aimed to collect qualitative data regarding students' perceived benefits of Diffit AI and the problems they faced when using it.



Graphic 3.13: Thematic Analysis of Perceived Benefits of Diffit AI

Question 16: In your opinion, how can Diffit AI help you to improve your writing?

Thematic analysis of responses revealed several recurring themes:

Theme	Frequency	Percentage	Example Response
Vocabulary enhancement	15	37.5%	"It builds my vocabulary. It suggests new expressions and vocab to be used."
Grammar correction and sentence structure	12	30.0%	"Correcting grammar and sentence structure mistakes... corrects spelling mistakes."
Organizing ideas	10	25.0%	"It helps me organize my ideas and shape them in a better way."
Saving time and increasing efficiency	5	12.5%	"It saves time so I can focus on writing practice."
Developing critical thinking	2	5.0%	"It gives you a prompt that you can use until you master writing and use one of your own."

Table 3.13: Perceived Benefits of Diffit AI (Thematic Analysis)

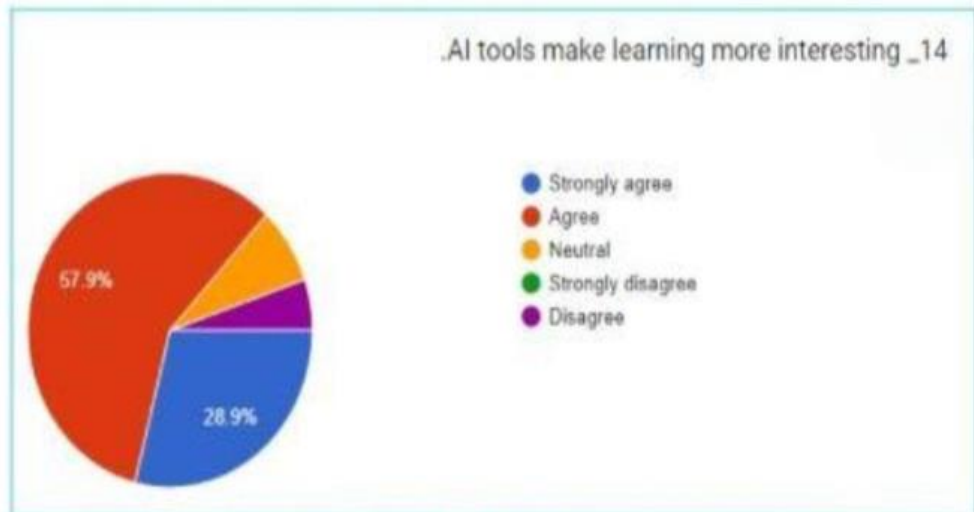
Table 3.13 shows that vocabulary enhancement was the most frequently mentioned benefit, cited by 37.5% of students.

This was followed by grammar correction and sentence structure (30.0%) and organizing ideas (25.0%).

One student wrote: *"Diffit AI helps me improve my writing by correcting grammar mistakes, suggesting better vocabulary, and organizing my ideas more clearly. It also saves time and helps me write faster and*

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more professionally." Another student stated: "Correcting grammar and sentence structure mistakes, organizing ideas and giving alternative expressions that exactly gives the meaning you want to express."



Graphic 3.14: Thematic Analysis of Problems Faced When Using Diffit AI.

Question 17: What problems did you face when using Diffit AI?

Thematic analysis of the responses revealed several challenges, as well as a notable number of students who reported no problems.

Theme	Frequency	Percentage	Example Response
No problems	12	30.0%	"There's no problems in using diffit AI", "Nothing at all it's very easy"
Over-reliance on AI	4	10.0%	"Too much relying on it", "It becomes its writing, not mine"
Misunderstanding or inaccurate responses	4	10.0%	"Sometimes it doesn't understand the idea I want to deliver"
Limited free access	2	5.0%	"When it is not free, especially when I would like to summarize my PDFs"
Contextual errors	2	5.0%	"Sometimes the tool does not fully understand the context, which can lead to less accurate suggestions"
No response	16	40.0%	/

Table 3.14: Problems Faced When Using Diffit AI (Thematic Analysis)

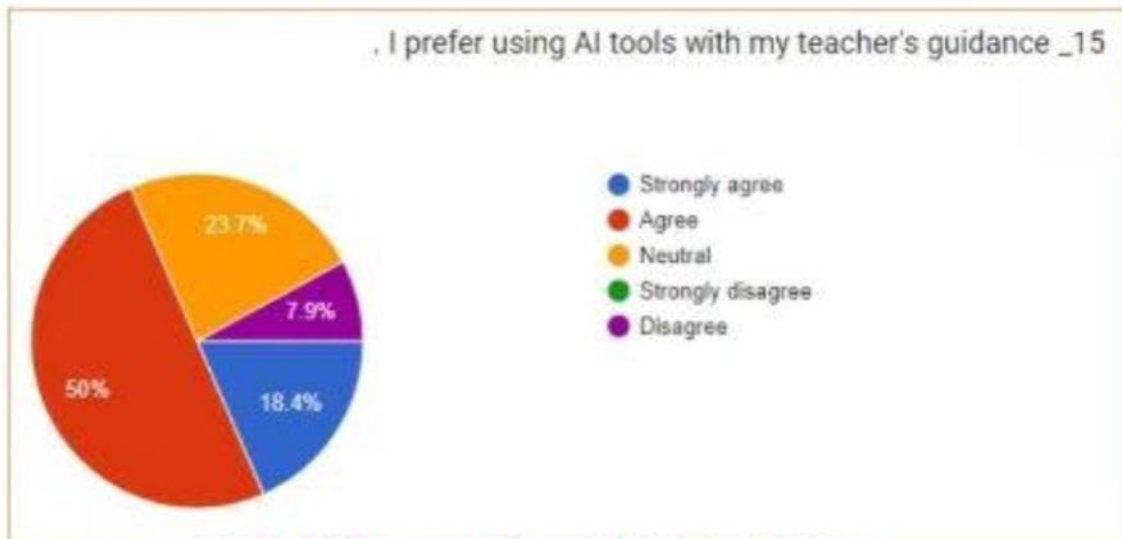
Table 3.14 indicates that 30.0% of students reported facing no problems when using Diffit AI, suggesting that for many users, the tool functions effectively without significant issues.

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However, some students expressed concerns about over-reliance on AI, with one student noting: *"The excessive reshaping of my ideas that it barely are my ideas. It adds so many details that my idea seems weak. Also that I sometimes rely on it too much, and it becomes its writing, not mine."* Another student reported: *"Sometimes it gives me some wrong information's"*.

This suggests that while Diffit AI offers valuable features, the cost of premium features may be a barrier for some students.

3.4.7 Summary of Qualitative Findings:



Graphic 3.15: Summary of Perceived Benefits and Problems.

Benefit Category	Frequency	Percentage
Vocabulary enhancement	15	37.5%
Grammar correction	12	30.0%
Organizing ideas	10	25.0%
Saving time	5	12.5%
Developing critical thinking	2	5.0%

Table 3.15: Summary of Perceived Benefits of Diffit AI

Problem Category	Frequency	Percentage
No problems	12	30.0%
Over-reliance on AI	4	10.0%
Misunderstanding	4	10.0%
Limited free access	2	5.0%
Contextual errors	2	5.0%

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No response	16	40.0%
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Table 3.16: Summary of Problems Faced When Using Diffit AI

Tables 3.15 and 3.16 summarize the perceived benefits and problems reported by students.

Vocabulary enhancement was the most valued benefit (37.5%), while 30.0% of students reported no problems at all.

3.5 Discussion of the Findings:

The results of this questionnaire provide robust empirical support for the three research hypotheses.

3.5.1 Verification of Hypothesis One (H1)

The findings confirm Hypothesis One (H1):

H1: Most EFL students use English writing tools like Diffit AI both inside and outside the classroom.

The data strongly support this hypothesis. Table 3.7 shows that 77.5% of students have used Diffit AI, and among those, Table 3.8 indicates that 74.2% use it regularly ("always" or "sometimes"). This high adoption rate indicates that Diffit AI has been integrated into students' writing practices. Furthermore, the qualitative responses reveal that students use the tool for various purposes, including vocabulary enhancement, grammar correction, and idea organization.

3.5.2 Verification of Hypothesis Two (H2)

The results support Hypothesis Two (H2):

H2: EFL students believe that using Diffit AI helps improve their vocabulary, comprehension, and grammar proficiency.

The findings strongly support this hypothesis. Table 3.9 shows that 75% of students agree that Diffit AI helps them understand texts more easily, 77.5% agree that it improves their vocabulary, and 70% agree

that it helps them write better sentences and makes writing easier. The qualitative responses further reinforce these findings, with students explicitly stating that Diffit AI helps with "correcting grammar mistakes," "suggesting better vocabulary," and "organizing ideas more clearly."

3.5.3 Verification of Hypothesis Three (H3)

The findings strongly support Hypothesis Three (H3):

H3: EFL students have positive attitudes toward using AI tools like Diffit AI in English writing classes.

The findings overwhelmingly support this hypothesis. Table 3.10 reveals that 82.5% of students like using AI tools in learning English.

Table 3.11 shows that 70% agree that AI tools make learning more interesting.

Additionally, Table 3.12 indicates that 57.5% prefer using AI tools with teacher guidance, suggesting a balanced view that values both technological support and human instruction.

3.5.4 Addressing Concerns and Challenges:

While the overall findings are positive, several concerns emerged from the qualitative data. Some students expressed worry about over-reliance on AI, with one student noting that "it becomes its writing, not mine."

This finding highlights the importance of using AI as a supplementary tool rather than a replacement for students' own thinking and writing practice.

Additionally, some students reported that the tool sometimes misunderstands their intended meaning, highlighting the importance of using AI as a supplementary tool rather than a replacement for teacher feedback.

The finding that 57.5% of students prefer using AI tools with teacher guidance suggests that students recognize the value of human mediation in the learning process.

This supports the integration of AI tools within a structured, teacher-guided pedagogical approach.

3.6 Summary of Findings:

The **quantitative** and **qualitative** analyses yielded the following key findings:

- ✚ **Demographics:** The sample consisted of 40 third-year EFL students (85% female, 15% male), with the majority (50%) rating their English writing level as "Average."
- ✚ **Writing Difficulties:** Vocabulary (40%) and organizing ideas (27.5%) were the most frequently reported writing difficulties.
- ✚ **Writing Practice:** The majority of students (60%) practice writing "sometimes," while only 7.5% practice "always."
- ✚ **Diffit AI Usage:** 77.5% of students have used Diffit AI, with 74.2% of users employing it regularly.
- ✚ **Perceived Effectiveness of Diffit AI:**
 - ✓ 75% agreed Diffit AI helps understand texts more easily
 - ✓ 77.5% agreed it improves vocabulary
 - ✓ 70% agreed it helps write better sentences
 - ✓ 70% agreed it makes writing easier
- ✚ **Attitudes Toward AI:**
 - ❖ 82.5% like using AI tools in learning English
 - ❖ 70% agree AI tools make learning more interesting
 - ❖ 57.5% prefer using AI tools with teacher guidance
- ✚ **Qualitative Themes:** Students valued Diffit AI for vocabulary enhancement, grammar correction, idea organization, and time efficiency. Concerns included over-reliance, occasional misunderstanding, and limited free access.

3.7 Recommendations:

Based on the findings of this study, the following recommendations are proposed for EFL teachers, curriculum designers, and future researchers.

Recommendations for EFL Teachers:

1. Integrate Diffit AI into writing instruction as a supplementary tool for vocabulary enhancement, grammar correction, and idea organization.
2. Provide explicit guidance on how to use AI tools effectively without becoming over-reliant on them. Teachers should emphasize that AI is a learning aid, not a shortcut.
3. Encourage students to use Diffit AI for self-editing after they have attempted to write independently. This promotes autonomous learning while still benefiting from AI support.
4. Address the concern of over-reliance by teaching students to critically evaluate AI-generated suggestions and to maintain their own voice in writing.

Recommendations for Students:

- Use Diffit AI as a learning aid rather than a shortcut. Attempt to write independently first, then use the tool for feedback and improvement.
- Balance AI use with traditional writing practice to develop autonomous writing skills and avoid over-reliance.
- Critically evaluate AI-generated suggestions and do not accept them blindly. Use the tool to learn, not to replace your own thinking.

Recommendations for Curriculum Designers:

- ✦ Incorporate AI tools like Diffit AI into writing modules as part of a blended learning approach that combines technology with traditional instruction.
- ✦ Provide training sessions for both teachers and students on the effective and ethical use of AI tools in language learning.
- ✦ Develop clear guidelines for the appropriate use of AI tools in academic writing to prevent misuse and over-reliance.

Recommendations for Future Researchers:

- ✓ Conduct experimental studies with pre-test/post-test designs to measure the actual improvement in writing skills attributable to Diffit AI, rather than relying solely on self-reported perceptions.
- ✓ Investigate the long-term effects of AI tool use on students' writing autonomy, critical thinking, and overall language development.
- ✓ Compare different AI tools (Diffit, QuillBot, ChatGPT, Grammarly) to determine which features are most beneficial for specific aspects of EFL writing development.
- ✓ Explore the role of teacher guidance in maximizing the benefits of AI tools and minimizing potential negative effects such as over-reliance.

3.8 Conclusion:

This chapter has presented a comprehensive analysis of the questionnaire data collected from 40 third-year EFL students at the University of Ghardaïa.

The analysis followed a systematic approach, examining each section of the questionnaire separately and integrating quantitative and qualitative findings.

The findings indicate that before using Diffit AI, students struggled primarily with vocabulary, organizing ideas, and grammar.

The majority of students (60%) practiced writing only "sometimes," indicating a need for tools that encourage more frequent writing engagement.

Following the use of Diffit AI, students reported substantial positive perceptions across multiple dimensions: 75% agreed that it helps them understand texts more easily, 77.5% agreed that it improves their vocabulary, and 70% agreed that it helps them write better sentences and makes writing easier.

The majority of students (82.5%) expressed positive attitudes toward using AI tools in learning English, and 70% agreed that AI tools make learning more interesting.

The qualitative responses confirmed these findings, with students highlighting vocabulary enhancement, grammar correction, and idea organization as the main benefits.

However, some concerns emerged regarding over-reliance on AI and occasional inaccuracies in the tool's responses. Notably, 57.5% of students preferred using AI tools with teacher guidance, suggesting that students value human mediation in the learning process.

In conclusion, the data analysis clearly supports the effectiveness of Diffit AI in enhancing writing skills among EFL learners.

Its ability to enhance vocabulary, text comprehension, sentence construction, and learner motivation positions it as a valuable resource in the English writing classroom.

Nonetheless, for its benefits to be fully realized, continued instructional guidance, balanced use, and teacher mediation are essential to prevent over-reliance and to ensure that students develop autonomous writing skills.

General Conclusion

General Conclusion

General conclusion:

In the current context of English as a foreign language (EFL) teaching in Algerian universities, writing continues to represent one of the most demanding skills for learners.

Students are often required to produce written work in a language that is not used in their daily communication, which naturally creates difficulties related to vocabulary limitation, idea generation, grammatical accuracy and text organization.

In the recent years, the rapid development of educational technologies has introduced new tools that aim to support learners in overcoming these challenges.

Among these tools, Diffit AI has emerged as a digital platform that supports text adaptation by simplifying reading materials and adapts content to learner's levels, making it a potential aid in language learning, particularly in writing development.

In this regard, the present research was carried out to examine student's writing performance and to explore their perceptions of the use of Diffit AI in enhancing their writing skills.

The study was built around a set of objectives that focused on understanding learner's writing habits, identifying the main difficulties they encounter when writing in English and analyzing their attitudes toward the integration of artificial intelligence tools in the learning process.

It also aimed to investigate the extent to which Diffit AI, through text adaptation and simplified learning materials, can support learners in fostering key aspects of writing such as vocabulary enrichment, sentence construction and text comprehension.

By addressing these elements, the research sought to provide a complete overview of how AI-based tools can contribute to enhancing EFL writing instruction in a university setting.

To achieve these objectives, a quantitative research methodology was adopted.

The study relied on a structured questionnaire designed to collect data from EFL students.

General Conclusion

The questionnaire included several sections covering personal information, writing practices, writing difficulties and student's perceptions of Diffit AI.

The collected were analyzed using descriptive statistics in order to identify trends, percentages and general patterns in student's responses.

This approach allowed for a systematic interpretation of learner's opinions and experiences regarding writing and AI-assisted learning. The analysis of findings revealed several important results.

Firstly, students come from diverse academic backgrounds and process different level of experience in learning English.

Despite this variation, a considerable number of learners consider their writing level to be moderate, which indicates that they have developed a basic level of competence.

Moreover, the results also clearly show that writing remains a problematic skill for many participants.

Learners reported several obstacles that affect their writing performance, particularly limited vocabulary knowledge, difficulty in organizing ideas logically and recurring grammatical and spelling errors.

These challenges suggest that students struggle not only with linguistic accuracy but also with the ability to express their ideas in a coherent and structured manner.

Secondly, the findings highlight that writing practice among students is not sufficiently frequent. Most of learners declared that they engage in writing activities only on occasion or rarely, while a low percentage indicated regular practice. This lack of consistent engagement with writing tasks may have a direct impact on their overall development, as writing is a skill that requires continuous exposure and practice to improve effectively.

General Conclusion

Without regular practice, students may find it hard to develop fluency, accuracy and confidence in written production.

Another significant aspect of the results concerns student's familiarity with Diffit AI.

The discoveries illustrate that the majority of participants are aware of the tool and have used it at least once in their learning process. Students announced that Diffit AI assists them understand texts easily and particularly because it relies on text adaptation to clarify hard content and present information in a clearer and more accessible way.

Also, learners indicated that this tool contributes to vocabulary enrichment and helps them in producing accurate and organized sentences.

These results suggest that adapted materials can decrease the complexity of learning tasks and make writing activities less intimidating for EFL learners.

Furthermore, many students emphasized the continuing importance of teachers in guiding the learning process. Rather than replacing classroom instruction, AI tools appear to function effectively as supportive resources used alongside teacher supervision and explanation.

This demonstrates the value of combining technological innovation with pedagogical guidance in order to achieve better educational outcomes.

From a theoretical perspective, the results support the idea that learners benefit from comprehensible and level-appropriate input.

In addition, when texts are clarified and adapted to student's linguistic abilities, comprehension becomes easier and learners are willing to interact with written materials. In this sense, text adaptation plays an important role in decreasing learning barriers and encouraging gradual language success.

General Conclusion

Diffit AI therefore represents a practical example of how artificial intelligence can encourage language acquisition by providing learners with accessible and personalized learning content.

Overall, this dissertation highlights both the difficulties experienced by EFL students in writing and the educational potential of AI-assisted learning tools.

Whereas writing continues to require substantial effort and practice, the integration of platforms such as Diffit AI can offer meaningful support in developing learner's abilities.

The study also demonstrates that technology alone is not sufficient, its effectiveness depends on thoughtful integration within the classroom and appropriate teacher guidance.

In conclusion, the present research confirms that Diffit AI can serve as a valuable complementary tool in EFL writing instruction, particularly through the use of text adaptation and simplified materials. Its contribution to comprehension, vocabulary development and sentence construction makes it a useful resource for supporting learner's writing progress.

Future research may further investigate the long-term influence of AI-based applications on language learning and explore additional ways of integrating such technologies into university teaching practices.

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Appendices

Appendices

Students' questionnaire:

1. Gender:

- Male
- Female

2. How long have you been studying English?

- ✓ 1-3 years
- ✓ 4-6 years
- ✓ More than 6 years

3. How do you evaluate your level in English?

- Weak
- Average
- Good

4. Do you find writing in English difficult?

- Yes
- NO
- Maybe

5. What are the main difficulties in writing?

- ✓ Grammar
- ✓ Vocabulary
- ✓ Organizing ideas
- ✓ Spelling

6. How often do you practice writing in English?

- Always
- Sometimes
- Rarely

7. Have you ever used Diffit AI?

- Yes
- No

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8. If yes how often do you use it?

- Always
- Sometimes
- Rarely

9. Diffit AI helps me understand texts more easily?

- Strongly agree
- Agree
- Neutral
- Strongly Disagree
- Disagree

10. Diffit AI helps me improve my vocabulary.

- Strongly agree
- Agree
- Neutral
- Strongly disagree
- Disagree

11. Diffit AI helps me write better sentences.

- Strongly agree
- Agree
- Neutral
- Strongly disagree
- Disagree

12. Diffit AI makes writing easier for me.

- Strongly agree
- Agree
- Neutral
- Strongly disagree
- Disagree

13. Do you like using AI tools in learning English?

- Yes
- No

14. AI tools make learning more interesting.

- Strongly agree

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- ✓ Agree
- ✓ Neutral
- ✓ Strongly disagree
- ✓ Disagree

15. I prefer using AI tools with my teacher's guidance.

- Strongly agree
- Agree
- Neutral
- Strongly disagree
- Disagree

16. In your opinion, how can Diffit AI helps you to improve your writing?

17. What problems did you face when using Diffit AI?

ملخص البحث

الملخص:

تستقصي هذه الدراسة فعالية استخدام Diffit AI لتكثيف النصوص من أجل تعزيز مهارات الكتابة لدى طلبة السنة الثالثة ليسانس بجامعة غرداية. لا تزال مهارة الكتابة تمثل تحدياً مستمراً لمتعلمي اللغة الإنجليزية كلغة أجنبية، حيث يعاني المتعلمون غالباً من صعوبات في اكتساب المفردات، والتراكيب النحوية، والتنظيم البلاغي. ولمعالجة هذه الاحتياجات الفردية للمتعلمين، يستكشف هذا البحث دمج الذكاء الاصطناعي كأداة تدعيم شخصية. تم اعتماد تصميم بحثي مختلط الأساليب لجمع وتحليل البيانات الكمية والنوعية. استخدم الجزء الكمي اختبارات قبلية وبعديّة لقياس التحسينات الفورية في أداء الكتابة لدى المشاركين، مع التركيز بشكل خاص على القواعد والمفردات وتنظيم الفقرات. أما الجزء النوعي فقد استخدم الاستبيانات والمقابلات القصيرة لاستكشاف اتجاهات الطلاب وخبراتهم وتصوراتهم فيما يتعلق بالاستخدام التفاعلي لـ Diffit AI. تعمل هذه الدراسة على افتراض أن تكثيف النصوص عبر الذكاء الاصطناعي يؤثر إيجابياً على الدقة اللغوية للطلاب، وأن المتعلمين يحتفظون بمواقف إيجابية تجاه الأداة بسبب زيادة المشاركة وتقليل الإحباط الناتج عن النصوص. ورغم أن الدراسة محدودة بقيود معينة، بما في ذلك حجم العينة الصغير نسبياً، وقصر مدة التدخل، والقيود التقنية المحتملة أو قيود الإنترنت، فإن النتائج تقدم رؤى تربوية قيمة للمعلمين في جامعة غرداية والمؤسسات المماثلة حول كيفية دمج أدوات الذكاء الاصطناعي التوليدية لدعم التعليم المتميز وتطوير الكتابة.

الكلمات المفتاحية: Diffit AI، تكثيف النصوص، مهارات الكتابة، متعلمو اللغة الإنجليزية كلغة أجنبية، الأساليب المختلطة، جامعة غرداية.