University of Zawia

Postgraduate Studies and Training

Faculty of Arts

Department of English

Applied Linguistics

Libyan EFL Postgraduate Students' Perceptions towards Blended Learning in Enhancing the Academic Performance

A Dissertation Submitted in Partial Fulfillment of the Requirements for MA Degree in Applied Linguistics

Submitted by:

Hana Meloud Zydan Alsherif

Supervised by:

Dr. Fahima Mohamed Bannur

Academic Year 2026

Abstract

This study examined the perceptions of Libyan EFL postgraduate students of blended learning (BL) and its effect on enhancing academic performance at the University of Zawia during the academic year 2024–2025. A mixed-methods approach was employed to gather data, utilizing both an online questionnaire and semi-structured interviews. The participants were sixty-eight Libyan postgraduate students who completed the questionnaire; eight of whom also participated in semi-structured interview questions. The questionnaire data were analyzed using SPSS, while thematic analysis was applied to the interview data. The results indicated that Libyan postgraduate students held positive perceptions of blended learning, particularly its ability to improve their academic performance through flexibility, accessibility, and continuity during crises. The findings also demonstrated a strong connection between blended learning and academic performance. However, the study identified some challenges, including technological issues, interpersonal difficulties, and a lack of support and training. The study concluded with recommendations for professors, students, and institutions to overcome these obstacles and to enhance the effectiveness of blended learning in Libyan higher education.

Declaration

I hereby declare that I am the sole author of this research entitled "Libyan EFL Postgraduate Students' Perceptions towards Blended Learning in Enhancing the Academic Performance at the University of Zawia", and that it is my original work. It has not been submitted, in whole or in part, for any other degree or qualification at this or any other university. All sources of information and ideas have been acknowledged through references, and the extent to which the work of others has been used is clearly indicated. I also declare that I have followed all ethical guidelines and principles related to this research.

Signature: _____ Date: / /

Dedication

I dedicate this dissertation to my beloved parents, whose unwavering support, love, and sacrifices enabled me to pursue my academic goals. Their encouragement, guidance, and belief in me were instrumental in shaping who I am today.

To my brothers and sister, thank you for your understanding, endless patience, and encouragement when it was most required. My dedication also extends to my nieces who always support and help me. Finally, my thanks go to my best friend, Asia Altriki, who encouraged me to persevere and believe in myself throughout this journey.

Acknowledgements

Firstly, I would like to express my deepest gratitude to Allah for guiding me through every step of this academic journey.

I would like to express my sincere gratitude to my supervisor Dr. Fahima Bannur, for her expert guidance and invaluable support throughout this academic journey. Her insightful comments, constructive feedback, unwavering professionalism, and genuine interest in my progress were instrumental in the successful completion of this dissertation.

I would also like to thank all the postgraduate students in the Department of English at the University of Zawia who generously participated in my questionnaires and interviews. Their cooperation was highly fruitful and greatly helped this study.

Special thanks also go to Dr. Almuqtouf Abu-Herba, whose wisdom and consistent encouragement have always supported my academic success.

My sincere appreciation goes to my best friends, Asia Altriki and Nisreen Alshoushan, and to all my classmates for their helpful comments, suggestions, and unwavering support throughout this journey.

Finally, I would like to extend my gratitude to everyone who contributed in any way to the completion of this dissertation.

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List of Abbreviations

BL: Blended learning

HE: Higher Education

EFL: English as a Foreign Language

ESL: English as a Second Language

SPSS: Statistical Package for the Social Sciences

TA: Thematic Analysis

F2F: Face-to-Face

GC: Google Classroom

SLA: Second Language Acquisition

E-learning: Electronic Learning

L2: Second Language

LMS: Learning Management Systems

MA: Master Degree

AP: Academic Performance

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In recent years, universities in developing countries have increasingly used technology to implement new teaching methods, such as blended learning. This shift towards technology is significant because it helps students to become more comfortable and productive with the use of this kind of learning style. Traditional educational systems are also moving towards these innovative teaching and learning methods (Rhema and Miliszewska, 2010). Moreover, technologies allow students to develop their skills, identify current knowledge, and communicate with their peers (Farahani et al., 2015). Rapid technological developments in education focus on combining technology with traditional teaching and learning methods. Boelens et al. (2018) emphasized that blended learning is an instructional strategy that merges online and traditional classroom activities to foster flexible and personalized educational experiences.

In EFL education, there is a specific need for innovative and effective teaching and learning strategies. The blended learning approach is widely used because it provides flexibility in accessing educational materials and instruction from any place, at any time, while also being cost-effective for higher education institutions (Castle and McGuire, 2010). The benefits of blended learning include combining the best features of in-class teaching with online learning to create opportunities for active, self-directed learning (El Mashaly et al., 2019). Additionally, it provides both teachers and students with the opportunity to practice the language inside and outside the classroom (Ju and Mei, 2018). Both teachers and students need to participate in blended learning, especially since the shift from teacher-centered to student-centered education means the student actively engage in the learning process by utilizing online learning (Al Bataineh et al., 2019).

Moreover, blended learning plays an important role in higher education by enhancing the learning experience for students and maintaining the quality of their academic performance by making educational services more efficient and accessible to all students (Hilliard, 2015). Furthermore, it is necessary to activate blended learning at all

educational levels, especially in higher education, as it reduces learning costs, saves time, and helps students learn to use technology more effectively. This helps them reach their academic goals faster and makes learning more fun and engaging (Smirnova and Katashev, 2017).

In this respect, the present study highlights the role of blended learning in enhancing the academic performance of EFL postgraduate students due to its rapid growth, significance, widespread use, and adoption in the educational field.

1.2 Statement of the Problem

In Libyan higher education, postgraduate programs continue to rely on traditional classroom instruction, which consists of three-hour sessions. This is largely focused on theoretical lectures and teacher-centered, which is not enough for postgraduate students to develop the academic proficiency they need (Rahmatullah et al, 2020; Amro, 2022). The primary focus should be on developing research skills, fostering intellectual autonomy, and encouraging self-learning rather than attending classes. However, students are sometimes unable to attend due to obstacles such as social circumstances, security issues, wars, and pandemics. As a result, their academic efficiency may negatively affected (Ghawail et al., 2021).

In addition, despite the proven effectiveness of blended learning in overcoming student accessibility challenges during periods of crisis and disruption, the concept of blended learning is still relatively limited within the Libyan educational system (Rhema and Miliszewska, 2010). The official adoption of it has not taken place widely yet, leaving numerous postgraduate students without access to its benefits. Blended learning is not intended to replace traditional education but to support and facilitate the learning process by adopting new methods. Hence, it is essential to develop and incorporate blended learning style, taking advantage of technological advancements in education to meet the changing needs of postgraduates and enhance their academic experiences. Consequently, the focus of this study is to investigate the role of blended learning in enhancing academic performance and preparing EFL postgraduate students for success in a globalized world.

1.3 Aims of the Study

This study aims to:

1- Explore Libyan EFL postgraduate students' perceptions towards the use of blended learning.
2- Identify the challenges encountered by Libyan EFL postgraduate students when utilizing blended learning.

1.4 Research Questions

This study answers the following research questions:

1- What are Libyan EFL postgraduate students' perceptions towards the use of blended learning?
2- What challenges do Libyan EFL postgraduate students face when using blended learning?

1.5 Significance of the Study

This study is beneficial for both professors and postgraduates by spotlighting the effectiveness of adopting blended learning in teaching EFL postgraduate students. It aims to prepare students properly, enhance their academic performance, and foster a more effective and successful learning environment. Using technology and implementing blended learning make the learning process more productive, engaging, effective, and successful for everyone involved. Moreover, this study provides valuable insights to help EFL postgraduate students overcome common challenges in their academic journey. It also provides students who practice blended learning with a valuable opportunity to share their experiences and knowledge with their colleagues. Furthermore, it reflects how postgraduates develop and prepare themselves independently for success in a globalized world. Additionally, the findings of this study can be generalized and add positive views about the use of blended learning in the Libyan context. Thus, a new learning strategy is significant for English language teaching and learning.

1.6 Scope and Limitations

The scope of this study is to investigate the perceptions of postgraduate students in the Department of English at the University of Zawia. The study was conducted during the academic year 2024–2025 and involved a questionnaire of sixty-eight postgraduate students and interviews with eight students to gather and interpret data. The study examines students' experiences, benefits, and challenges related to blended learning, as well as its impact on academic performance.

One limitation of the study is its restricted scope, as the sample was drawn exclusively from postgraduate students in the English Department at the University of Zawia. Furthermore, the sample is highly gender-imbalanced (61 females, 7 males). The data were collected over a specific period. Additionally, the study relies on self-reported data collected through questionnaires and interviews. Finally, the study focuses on technology-based blended learning and students' perspectives only.

1.7 Research Methodology

This study utilizes a mixed-methods approach to investigate how blended learning can enhance the different skills of EFL postgraduate students. Both quantitative and qualitative research methods are used. The study sample included 68 EFL postgraduate students from the Department of English at the University of Zawia. The quantitative data are collected through an online questionnaire using Google Forms to investigate Libyan postgraduate students' perceptions towards blended learning and its influence on their academic performance. For the qualitative data, semi-structured interviews are conducted with a purposive sample of eight EFL postgraduate students who have experience with blended learning. The data analysis involves using statistical analysis software (SPSS) to analyze the questionnaire, while thematic analysis is used to analyze the interview data.

1.8 Organization of the Study

This study is organized systematically into five chapters. The contents of each chapter are briefly summarized as follows:

- Chapter one is an introductory chapter which includes the background of the study, the statement of the problem, the aims of the study, the research questions, the significance of the study, and a brief overview of the research methodology.
- Chapter two introduces the literature review which presents the definitions and models of blended learning. Then it introduces the benefits and challenges faced by postgraduate students, and its relationship with academic performance.
- Chapter three displays the methodology used in this study. It describes the methods and the data collection instruments (online questionnaire and semi-

structured interviews). It also includes the procedures of data collection as well as the reliability and validity of the research instruments.

- Chapter four presents the study findings obtained from both quantitative and qualitative results, which were illustrated in tables and themes.
- Chapter five discusses the most significant findings related to the literature reviewed in the second chapter and the research questions stated in this chapter. It also concludes with recommendations, limitations and suggestions for future research.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents a comprehensive review of the theoretical foundations of blended learning within the context of English as a Foreign Language (EFL) education. It starts with its definitions, models, and pedagogical benefits, with focus on the role of BL in fostering student engagement, autonomy, and academic performance. The chapter also examines postgraduate students' perceptions and the challenges they face in blended environments. Finally, it summarizes the main findings from the literature review.

2.1 Theoretical Framework

This study is grounded in constructivist, social learning, and technology-enhanced learning theories. These emphasize learner autonomy, interaction, and meaningful knowledge construction. Blended learning integrates face-to-face and online methods to support active, collaborative learning and enhance academic performance in postgraduate education.

2.1.1 Definition of Blended Learning

Blended learning (BL) is a pedagogical approach that combines traditional face-to-face classroom methods with online learning elements and activities. This combination aims to create a more flexible and engaging learning experience (Kuzmenko, 2017). This approach employs technology to improve the educational experience, enabling students to engage with materials at their own pace while maintaining direct connections with instructors and peers (Wang et al., 2018).

However, blended learning is not an alternative to traditional instruction, but a strategic method that utilizes technology to enhance the educational process (Horn and Staker, 2015). It is a teaching approach that combines both traditional and online learning. It is a growing trend in the era of technological advancement (Albiladi and Alshareef, 2019). Blended learning also known as hybrid learning mixes online and traditional teaching methods to improve students' academic performance. This trend emphasizes the amplification of web-based media and tools, including Learning

Management Systems (LMS) and other digital resources, which have proven to be effective ways to advance EFL education (Tran and Nguyen, 2023). Digital resources like applications, e-books, and computing devices can be used for lesson plans, lectures, textbooks, assignments, quizzes, tests, audio and video content, and digital and social networking platforms such as Twitter, YouTube, and Facebook.

Furthermore, blended learning is a diverse teaching and learning approach that can be described in various ways, all of which agree that it is a hybrid method. According to O'Brien et al. (2021), blended learning is a dynamic combination of online and offline learning that influences students' learning experiences across time, space, and different learning pathways. Additionally, it is an adaptive method that mixes traditional classroom lessons with modern electronic resources. This exciting mix of innovation and transition represents the future. Its potential is significant and evident due to its numerous benefits for students and instructors. Figure 1 illustrates blended learning compared to traditional (face-to-face) and online learning.

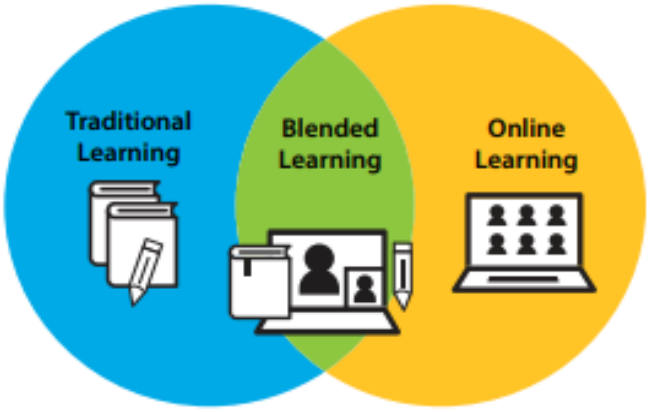

Figure 1: Blended learning (Alston-Socha, et al., 2022)

Additionally, blended learning emphasizes the student as the center of the learning process and integrates online and face-to-face learning experiences (Attard and Holmes, 2022). Moreover, the concept of blended learning is to enhance the quality of learning content and the methods used to deliver it, while still valuing and preserving the teacher's roles in the classroom (Bakeer, 2018). Blended learning appeals to institutions and has untapped potential.

However, the adoption of technology that delivers blended learning, such as a Learning Management System (LMS), varies among students (Henderson et al., 2017). According to Lawless (2019), certain conditions determine how blended learning is used, making it even more challenging to develop a universally accepted definition. Additionally, it can reduce some potential risks associated with the use of digital tools in students' learning. For example, due to technical issues, learners may lose the value of the knowledge they have acquired. Furthermore, the use of digital tools in education may lead to a reduction in face-to-face interaction (Lubkov et al., 2020).

Hence, blended Learning is a type of education that combines synchronous (real-time) and asynchronous (self-paced) activities (Heilporn et al., 2021). This combination allows students to engage with content in ways that suit their individual learning preferences and schedules. In the era of technological innovation, blended learning utilizes technology to create a more efficient, interesting, and student-centered learning environment (Yu and Du, 2019). It is perceived as one of the most productive types of learning, offering a balanced approach that maximizes the strengths of both traditional and online methods (Lubkov et al., 2020).

Blended learning is a transformative method of education that integrates online tools with traditional classroom learning (Bandara and Jayaweera, 2024). This method improves educational experiences and increases efficiency, giving flexibility in synchronous communication and online learning systems. It expands learning beyond the physical classroom, influencing the future of children's education.

Blended learning (BL) is experiencing rapid growth due to diverse learning needs in higher education. It combines digital tools with traditional classroom interaction and has become the "new normal" in higher education (Yu et al., 2021). It is highly valued for increasing student engagement, supporting personalized learning, and improving academic performance effectively. Despite differing definitions, all approaches share the common idea of integrating online and face-to-face learning experiences (Lawless, 2019).

2.1.2 Models of Blended Learning

Blended learning encompasses a range of models and approaches that integrate traditional classroom instruction with online learning components. These models aim to address the diverse needs, preferences, and contexts of students, offering flexibility

and enhanced learning experiences. Common models include rotation, flex, and enriched virtual models, each tailored to specific educational goals and settings. The following are some common types of blended learning:

1. **Rotation Model**

The rotation model in blended learning resembles a learning game where students rotate through various learning stations, including computer activities, small-group discussions, individual tutoring, and hands-on projects. This model can be used in regular classrooms and during remote learning. It cultivates essential skills such as self-paced learning and the ability to focus on challenging areas (Moiseienko and Ozarko, 2019). It allows students to receive personalized attention and a comprehensive educational experience that adapts to their individual learning styles and needs (Wu et al., 2023). Moreover, it aims to make learning more engaging. For instance, students might work on online modules during part of their class time before meeting with the teacher for small-group instruction or collaborative projects (Lu et al., 2023).

2. **Flipped Classroom**

In this model, students learn new content online and complete online assignments and lectures at home, using classroom time for guided practice or projects with teacher support (Christensen Institute, 2021). This approach transforms the traditional classroom by promoting active learning, managing class time more effectively, and encouraging students to become more responsible and confident (Ullah and Jinah, 2023).

3. **Flex Model**

The Flex Model in blended learning is a primarily online program during school hours and forms the foundation of the learning process. Students access online materials and engage in independent learning activities, such as small-group activities, individual tutoring, and teacher-led support. This blended approach enables personalized learning experiences, catering to individual needs and learning styles (Sahoo and Bhattacharya, 2021). This approach provides students with flexible schedules and personalized learning paths, allowing them to work at their own pace and focus on areas where they need more support (Ashraf et al., 2021).

4. **Self-Blend Model**

The Self-Blend Model allows students to supplement their traditional classroom instruction. Most learning takes place online, empowering students with greater autonomy and control over their learning. However, students will still attend face-to-face classes. This model gives students the freedom to complete instructions that occur in class and prepares them for the demands of the 21st century. (Krismadinata et al., 2020). This method provides students with an opportunity to enrich their learning and explore different topics.

5. **Enriched Virtual Model**

In the Enriched Virtual Model, students are provided students with all the elements of a traditional classroom within an online environment. This includes access to online classrooms with features that simulate a physical classroom. Students participate in a variety of online assignments that replicate the diverse learning experiences found in a traditional classroom setting (Ayob et al., 2020). Although this model primarily relies on online instruction, it also incorporates periodic face-to-face interactions to enhance engagement and collaboration (Krismadinata et al., 2020).

The advances in blended learning models provide educators with diverse options to cater to different learning needs and preferences, allowing them to select appropriate tools. This is particularly crucial in today's classrooms, as it enables educators to adapt these models to their specific contexts, creating inclusive and engaging learning environments.

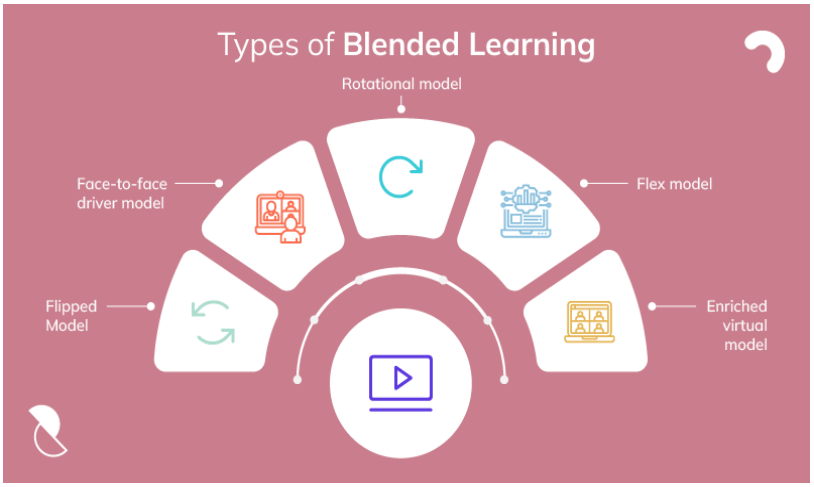

Figure 2: Blended learning models (Disprz, 2025)

2.2 Blended Learning in EFL Education

Blended learning has become increasingly integral to language education especially within English as a Foreign Language (EFL) context. It examines various ways to implement blended learning in EFL context to enhance learning experiences.

2.2.1 Blended Learning Approaches in EFL Context

Blended learning can be implemented through several instructional approaches, each combining face-to-face teaching with online learning in different ways. These approaches enhance flexibility, promote autonomous learning, and improve academic achievement in EFL settings. The most commonly adopted approaches in EFL contexts include the Flipped Classroom, Technology-Enhanced Autonomous Learning, the Synchronous-Asynchronous Hybrid Model, and Task-Based Blended Learning (TBBL).

Several studies have investigated the impact of blended learning on students' academic achievement. It provides a learning model for the modern classroom, facilitating learning at any time and from any place. The Flipped Classroom approach reverses the traditional learning sequence by having students engage with new content. This flexibility is more crucial given the limited hours available during the school week. Ju and Mei (2018) examined how blended learning allows students who learn English as a Second Language (ESL) to support language development during class time and in their independent learning activities. Besides, Rahim (2019) identified that blended learning is a significant educational tool for the contemporary classroom. Due to the increasing global educational needs, it presents a crucial approach for learning a foreign language.

Technology-Enhanced Autonomous Learning is a significant approach that empowers learners to take ownership of their language development through digital tools. According to Banditvilai (2016) found that integrating blended learning within an Asian institution significantly enhanced students' English language skills and self-study practices among learners. The study's findings indicate that blended learning is used more effectively for students to study and review the language whenever and wherever they want, helping them better acquire the language.

The Synchronous-Asynchronous Hybrid Model combines real-time (synchronous) online sessions—such as live lectures or video conferences—with self-paced

(asynchronous) activities like discussion forums, recorded lessons, and digital assignments. Zhang and Zhu (2018) compared the effectiveness of BL with conventional English as second language teaching methods in China. The results showed that BL students achieved greater academic success compared to face-to-face instruction.

Additionally, Task-Based Blended Learning (TBBL) integrates language learning around real-world communicative tasks. This approach aligns with communicative language teaching principles and develops both linguistic and pragmatic competence. BL has become a strong choice for developing EFL learning experiences in higher education environments (Zhao et al., 2023).

2.2.2 Role of Blended Learning in EFL Education

Blended Learning (BL) plays a vital role in enhancing English as a Foreign Language (EFL) education by combining the flexibility and accessibility of online learning. It provides students with various opportunities to develop their language skills through interactive and engaging activities.

A. Enhancing Language Skills

Blended Learning offers numerous educational opportunities for students to develop their English language skills, including listening, speaking, reading, and writing. By integrating online and offline activities, blended learning creates an interactive classroom that responds to diverse learning styles and needs. Ja'ashan (2015) showed that blended learning can be implemented as a basic technique to study a foreign language with new educational trends. It not only facilitates the language learning process more easily but also supports EFL educators achieve many pedagogical goals, such as personalized instruction and increased student engagement. Blended learning has a direct impact on enhancing reading skills among language learners. The utilization of electronic resources helps students increase their comprehension and vocabulary (Ghazizadeh and Fatemipour, 2017).

According to Albiladi and Alshareef (2019), blended learning enhances language skills development, extends the English language learning experience, and encourages learners to engage with the language completely. For instance, online tools provide student opportunities to practice speaking and listening through simulated conversations with native speakers or peers, while writing skills are enhanced through

collaborative online projects and assignments. BL's popularity is growing because of its capacity to overcome traditional education in conventional classroom instruction, which has been widely adopted in higher education institutions following the pandemic (Cobo-Rendón et al., 2022).

B. Improving Academic Performance

Blended learning has demonstrated a significant potential to enhance academic performance in EFL education. Ju and Mei (2018) claim that blended learning improves the academic performance of EFL students, which supports the idea that it enhances the entire learning environment.

According to Oweis (2018), blended learning has a significantly positive impact on student academic performance and motivation compared to traditional instructional methods. The current study supports the effectiveness of blended learning in EFL education, demonstrating that it is a practical and successful method for improving academic performance by providing students with diverse resources and practice opportunities. It encourages EFL learners to engage in genuine language learning activities that lead to educational outcomes. Therefore, BL allows students to access information from multiple sources (Tran and Nguyen, 2023).

Furthermore, blended learning significantly enhances student academic performance by fostering a more engaging and student-centered learning environment. It not only boosts self-efficacy but also improves overall academic achievement, as greater self-assurance is strongly linked to better academic outcomes. This approach offers compelling evidence of its ability to improve academic performance and foster self-efficacy, making it a powerful tool for enhancing student-learning experiences. Due to its potential to promote academic success and create more effective learning environments, it is strongly advocated for adoption in educational settings (Rayyan et al., 2024).

C. Preparing Students for Real-World Communication

Blended learning effectively prepares EFL students for real-world communication by imitating practical language use in a globalized world. Through online interactions with native speakers and the use of social media for language practice, students encounter real-life language settings (Yu and Du, 2019). These activities improve conversational

fluency and accuracy, and help students to develop cultural awareness and idiomatic expressions. Additionally, blended learning encourages students to collaborate and enhances adaptability, preparing them for global communication issues (Wang, 2021). Blended learning enhances language competency and fosters confidence, enabling students to participate effectively in different situations and manage the complexity of cross-cultural interactions. Consequently, learners are more adept at addressing real-world challenges, promoting both personal and professional development in an increasingly interconnected environment (Shi, 2022).

2.3 Benefits of Blended Learning

There are numerous benefits of using Blended learning to enhance the teaching and learning experience, particularly in English as a Foreign Language (EFL) context. Here are some of the main advantages:

One of the primary benefits of blended learning in EFL education is its ability to greatly increase student engagement. By integrating interactive online activities, multimedia resources, and opportunities for collaboration, blended learning supports various learning styles and creates a more engaging and motivating learning environment (Bajaj, 2020). This approach leads to increased participation, active learning, and a greater sense of ownership over the educational experience. For example, interactive tools such as quizzes, videos, and discussion forums encourage students to engage more deeply with the material.

Additionally, Blended learning facilitates interaction between students, teachers, and peers, which is critical for academic success. Rusly et al. (2020) emphasize that blended learning increases interaction and facilitates communication, allowing students to work together more effectively. Furthermore, the integration of technology in blended learning enhances motivation, engagement, and accessibility, which can lead to better grades and higher satisfaction levels among students. Consequently, blended learning helps align instructional strategies with modern learning needs, ensuring that students remain engaged and motivated throughout their educational journey.

The collaborative learning approach is a powerful method of teaching English as a Foreign Language (EFL) education that fosters student engagement and contributes through the integration of online tools. In addition to promoting collaboration, blended learning also supports personalized learning paths, which are particularly beneficial in

EFL contexts where students often have diverse proficiency levels and learning needs**.** By increasing participation, critical thinking, and peer interaction, these tools transform the learning experience. Encouraging collaborative learning creates an environment where students actively participate in discussions, share ideas, and solve problems together (Oskarita and Arasy, 2024). Ultimately, collaborative learning transforms the educational experience, making it more engaging, interactive, and relevant to the needs of 21st-century learners.

However, blended learning facilitates personalized learning paths, which are particularly beneficial in an EFL context where students often have diverse proficiency levels and learning needs. Furthermore, the flexibility of blended learning allows students to access tailored resources and engage more deeply with the content, contributing to improved learning effectiveness. Valcheva et al. (2022) demonstrate that this system enables students to progress at their own pace, access tailored resources, and engage more deeply with the content. Furthermore, the system's cost-effectiveness and adaptability make it a practical solution for overcoming traditional e-learning limitations, ultimately leading to a more efficient and satisfying educational experience.

One of the most common advantages of blended learning is its flexibility. Blended learning significantly enhances flexibility and accessibility in education. According to Ulanday et al. (2021), flexibility helps adult learners and those with different lifestyles and schedules, enabling them to interact with materials at their convenience. Moreover, the integration of online learning tools, including laptops and mobile phones, empowers students to participate in activities and access learning materials from any location, promoting independent learning and encouraging them to take responsibility for their educational journey. This usage of technology not only helps autonomous learning but also meets the different scheduling requirements of teachers and students (Simbolon, 2021).

Furthermore, blended learning supports access to quality education by combining traditional lecture-based methods with online approaches, generating an alternative and engaging learning environment (Bandara and Jayaweera, 2024). The flexibility and accessibility associated with blended learning enhance the learning environment and increase student motivation and satisfaction. Students appreciate the option to engage in online activities at their own pace and convenience (AtaiZi and Aksak Kömür, 2021).

Specifically, flexibility and accessibility make blended learning a valuable approach in modern education, providing students with the freedom to manage their study time and location, removing many obstacles to education while fostering independence, motivation, and satisfaction.

Blended learning fosters student autonomy by encouraging learners to become self-directed. This approach helps them to take charge of their educational journey by independently setting goals, exploring course content, and managing their time. (McHone, 2020) emphasizes the relationship between technology application and student autonomy within blended learning settings. Additionally, blended learning provides possibilities for students to develop autonomously and engage more deeply with the material. (Ahmed and Eljack, 2020) describe that blended learning creates a "healthy" learning environment characterized by increased student independence. The ability to independently search and utilize internet resources empowers students to seek learning resources, guiding them towards their academic goals and enhancing their English language competence. For instance, a proactive student's immediate use of YouTube after class to review lesson content demonstrates this self-directed learning approach.

Blended learning offers a cost-effective alternative to traditional education, boosting institutional value while reducing overall expenses. Maloney et al. (2015) emphasize how cost and value directly influence access to education, highlighting that cost-effectiveness minimizes financial risks and enhances educational accessibility for both students and institutions. Maintaining high educational quality facilitates blended learning as a valuable and readily adaptable model.

Students gain significant benefits from the timely and effective feedback in blended learning (BL). Immediate feedback allows a quick progress assessment and identification of areas that need improvement. Sylvia et al. (2024) highlight that feedback's crucial role in skill development. BL utilizes tools for mistakes analysis and targeted suggestions, complemented by instructor feedback that guides discussions and provides relevant information. This diverse feedback approach, facilitated by technology, enhances the learning experience for students.

Soubra et al. (2022) indicate that student-centered educational settings offer substantial advantages over traditional instructional techniques. These settings encourage deep engagement with course material, stimulating dialogue and collaboration, which eventually leads to better learning outcomes. Furthermore, student-centered approaches boost in-class teaching efficiency and effectiveness. Crucially, these strategies provide students with controlled opportunities to develop new information based on their prior understanding actively.

The most significant benefits for students are achieved from a successful integration of both online and face-to-face learning. This combination merges the flexibility, accessibility, and personalized learning opportunities of online education with the structured guidance, social interaction, and hands-on support of traditional classroom teaching. Consequently, this approach boosts student engagement and academic performance while developing essential skills such as time management and collaboration. In light of this, it prepares them for future success in both academic and professional environments.

2.4 Perceptions of Students towards Blended Learning

Perceptions are described as how students view and understand their learning experiences. This includes their feelings, beliefs, and attitudes towards the learning environment and methods used, such as blended learning (BL). The perceptions of students towards blended learning are crucial factors for adapting and accepting within educational institutions. Understanding these perceptions can support the development of blended learning programs that meet learners' needs.

Kazi and Moghal (2019) investigated the experiences and perceptions of students in one department at a public sector university in Lahore, Pakistan. A blended learning approach had been implemented at this university to improve students' access to resources and facilitate communication. Eleven postgraduate students were interviewed as part of the study. The results showed a combination of positive and negative perceptions: the positive side included ease of access to learning materials, cost efficiency, a flexible learning environment, and reduced commute times to facilitate better interaction within educational learning. The negative perceptions included repeated technical issues, lack of transparency in student performance, and lack of opportunity for the learners. According to Abednego et al. (2023), different perceptions

among students can affect the success of learning outcomes. These perceptions provide insights for education in the Indonesian context. The implications of this research align with the preferences of teachers and students for achieving quality education. This study demonstrates that many students struggle to comprehend the material and engage with teachers and peers during blended learning.

Postgraduate Students' perceptions of blended learning can be either positive or negative. The positive perceptions include benefits identified by students such as increased engagement and flexibility. However, the negative perceptions can encompass challenges such as feelings of isolation, increased workload, and difficulties with technology. These diverse perceptions significantly influence students' acceptance, adoption, and overall experience within blended learning environments. These perspectives are essential for the successful implementation of blended learning programs.

2.4.1 Positive Perceptions

Many studies have shown that blended learning can positively affect students' learning attitudes. Andhika and Hamdi (2020) examined the perceptions of 123 postgraduate students towards blended learning, and two instruments were used, including questionnaires and documentation, which were analyzed using quantitative descriptive methods. The study findings showed that blended learning motivates students to succeed, provides access to materials, saves time, is cost-effective to facilitate easy contact with instructors and peers, and is helpful for video materials.

The study of Sinkus and Ozola (2022) focuses on the importance of reflection in education and aims to explore students' perceptions of their blended learning experiences. A questionnaire and semi-structured interview were applied to evaluate the effects of blended learning on postgraduate students. The study found that perceptions were positive when it encouraged self-directed learning, increased collaboration and motivation, and reduced isolation. Moreover, it facilitated the development of essential academic skills, and they feel more confident.

The implemented blended learning strategies were easy to use and navigate. Tran and Nguyen (2023) highlighted students' positive perceptions of the flexibility and convenience of blended learning courses, stating that it is more beneficial compared to

traditional learning methods. Another study focused on students' positive perceptions of implementing blended learning. Likewise, the findings showed that the positive perceptions towards blended learning can guide them to develop and emphasize the need for an individualized approach: students felt more motivated to participate by managing their time and committing effort into their studies, leading to better outcomes (Al-Qudimi and Hameed, 2024).

Furthermore, the study supports the positive perception of blended learning environments. Almekhlafi et al. (2025) aimed to explore UAE university students' perceptions of blended learning's effectiveness. A questionnaire with a 5-point Likert scale was used. The findings obtained showed that students have a positive perception of blended learning. It provides important implications for educational policy and practice and be able to meet the academic needs. In addition, it is an effective instructional method. It is also popular among students in the UAE, with high levels of satisfaction with blended learning.

2.4.2 Negative Perceptions

Despite the numerous benefits and positive perceptions associated with blended learning, a negative perception pointed to core challenges. Tran and Nguyen (2023) described several negative attitudes towards BL. The researcher studied 165 undergraduate students majoring in English at the Faculty of Foreign Languages of Thu Dau Mot University. The findings expressed that students' frustration over the lack of immediate feedback and meaningful engagement led to feelings of isolation. The results also highlighted the need for better support, more reliable technology, and interactive teaching approaches to address these issues.

In addition, Munir et al. (2024) examined students' perceptions of blended learning, including 360 social sciences students from two universities in Multan district: Bahauddin Zakariya University and Women's University. The results indicated that students require training programs to improve their technological proficiency and to enable them to participate effectively, as well as regular feedback sessions. This lack of technical proficiency increases frustration and anxiety among students who feel uncomfortable with technology, which leads to a negative perception of the blended learning experience.

While many students reported positive perceptions toward blended learning, Pratama (2023) identified that the focus is on the effect of blended learning during the COVID-19 pandemic. A questionnaire was used to collect data. The findings of this study indicate that the learning processes were negatively impacted due to inadequate teaching support, lack of interaction between teachers and peers, unreliable internet connections, and learning materials and activities that do not align with students' needs. Due to these problems, students become frustrated, resulting in a lack of support and necessary tools for success in blended learning classes.

Another study focused on students' negative perceptions of implementing blended learning. According to Tsegaye and Gezahegn (2024), students' issues are influenced by technological problems, language difficulties, lack of support, and spending a lot of time navigating online learning tools, which can lead to frustration and negatively impact perceptions. Furthermore, Misbah et al. (2023) indicate that the majority of students considered the lecturer's teaching methods to be effective and satisfactory. Despite this, students felt overwhelmed by the number of assignments, which prevented them from significantly improving their skills. Poor workload management during online learning negatively impacts their perception of the experience.

2.5 Challenges Faced by EFL Students in Blended Learning

Despite the numerous benefits of blended learning that can effectively improve ESL learners' language skills, several challenges have been identified with this teaching method.

Amiruddin et al. (2022) mentioned several challenges of blended learning, including students' isolation from the learning process due to poor technology facilities and difficulties in managing technological tools. These obstacles can greatly discourage learners and disrupt their motivation, effort, and performance. Additionally, the lack of social interaction with teachers and peers further demotivates students, negatively influencing their engagement and language learning outcomes. Another major obstacle is the insufficient supporting conditions, such as inadequate technology skills among educators and learners, as well as limited access to necessary facilities, which hinder the effectiveness of blended learning. These issues collectively constitute significant barriers to the successful implementation of blended learning in language education.

In addition, Cao (2023) identifies several significant challenges associated with implementing blended learning environments. These challenges are multifaceted, encompassing technical, pedagogical, and logistical issues. A primary obstacle is technical difficulties, such as unreliable internet connectivity and limited access to devices. These issues frequently disrupt both teaching and learning activities, creating inequitable learning experiences and hindering consistent engagement with online components. Effectively integrating technology presents a pedagogical challenge that can create inequitable learning experiences and frustrate both teachers and students. Furthermore, insufficient technical skills can impede the effective use of learning and other technological tools. This pedagogical gap is often exacerbated by a lack of adequate training and support, or unforeseen circumstances, such as the COVID-19 pandemic, can force rapid adoption of blended learning without sufficient preparation, further compounding these challenges.

According to Rianto (2020), several challenges occurred from student experiences with blended EFL courses. The primary obstacle was unreliable internet connectivity. Students also reported difficulties using the online platform, citing confusion and frustration with its interface. Furthermore, some students considered online learning components to be time-consuming or excessive, even though they acknowledged the overall benefits of online learning. These technical and usability issues contributed to a negative opinion of certain aspects of the blended learning experience.

Similarly, students encounter numerous challenges when adapting to new learning environments, especially during the transition to blended learning. Abdulkader (2024) studied the challenges and opportunities experienced by thirty-two Saudi male and female students associated with blended learning in their educational context. The findings revealed a lack of technological proficiency and inadequate teacher training. To address this problem, feedback should be provided to students on their academic achievements, such as integrating technological skills, supporting accessible resources that can be easily obtained, and providing practical training.

However, Aravind (2024) examined the most prevalent difficulties faced by students when implementing blended learning. These challenges include issues related to technology access and proficiency, where not all students have equal access to devices such as laptops, tablets, or reliable internet connections. Without those, students may

feel excluded or frustrated, which can lead to lower engagement and motivation. Another challenge is maintaining consistent communication, especially since students struggle to stay connected across multiple modalities, which makes it difficult for them to work independently online.

Besides, Fruto et al. (2024) examined several significant challenges that students might experience in the online components of blended learning, including self-regulatory issues where students struggle to manage their time effectively, stay motivated, and take responsibility for their own learning. Additionally, they face struggles with adopting new tools, such as poor internet connectivity or software malfunctions. Therefore, training and self-regulation strategies are needed to improve accessibility and engagement. This reduces the challenges students face in blended learning environments and ensures that all of them have equitable opportunities to succeed.

Therefore, several challenges exist when studying in blended learning environments, especially concerning self-regulated and mobile-mediated learning. One significant barrier is the level of structure in the courses; there are not enough activities and materials to help them engage effectively. Individual factors can also pose challenges, including students' knowledge, skills, confidence, attitudes, and concerns. Finally, technological issues such as inadequate infrastructure, poor internet connectivity, and limited access can impede students' learning. These findings emphasize the importance of addressing these challenges to enhance the quality of online learning (Nikolopoulou, 2023).

Another challenge pointed out by Taylor (2024), who surveyed 57 undergraduate students in Thailand with different levels of English proficiency. The study revealed that certain difficulties such as some students' inability to use online tools effectively need to be addressed. Moreover, many students feel uncomfortable and isolated due to a lack of interaction and feedback, and they struggle more with social interactions, motivation, and willingness to participate. The study also found that higher-proficiency EFL students experienced negative emotions in blended learning due to the ease of learning tasks and the limited teacher support in developing advanced language skills, despite their academic achievements. On the other hand, lower-proficiency students encounter greater challenges, such as struggling to manage the complexity of the

material, finding it difficult to complete tasks, and expressing positive emotions. However, despite these challenges, they have more positive experiences overall.

Generally, many students still face difficulties in learning and adapting to this type of learning. Certain issues need to be addressed. For example, some students struggle with interaction, content, pedagogy, assessment, and institutional support and infrastructure. Furthermore, the absence of structured support for blended learning can create additional challenges for both students and teachers. To address these challenges, students suggested several solutions by designing and implementing online forum discussions and peer collaboration tools to facilitate timely support and feedback. Additionally, solutions may include evaluation techniques and institutional resources, such as reliable internet access (Pham et al., 2023).

Despite these drawbacks, blended learning remains one of the most effective educational approaches. According to Nisak et al. (2025), blended learning is an effective educational approach that, when implemented effectively, can enhance flexibility, engagement, and overall academic outcomes in higher education. Therefore, a comprehensive literature review is essential to address this existing research gap and provide evidence-based solutions to these challenges. By examining previous studies and theoretical frameworks, we can identify effective strategies and best practices to overcome obstacles in blended learning environments, such as technological limitations, workload management, and student engagement. This approach will inform educators and institutions on how to implement blended learning programs more effectively and successfully. Ultimately, addressing these gaps can enhance the overall quality of education and improve academic outcomes for postgraduate EFL students.

2.6 Blended Learning and Academic Performance

The integration of online and face-to-face instruction within blended learning fosters and enhances student achievement, engagement, and adaptability. This approach has demonstrated to improve language skills, increase student engagement, autonomy, and motivation; all of these improvements are essential for achieving academic success.

2.6.1 Defining Academic Performance

The concept of Academic Performance (AP) represents the extent to which an individual has achieved specific educational goals that were the focus of activities in instructional environments, such as in schools, colleges, and universities (Steinmayr et

al., 2014). This approach is a complex concept that encompasses various aspects of learning and educational outcomes.

Furthermore, academic performance is defined as a direct indicator of student learning achievement, reflecting how effectively they meet educational goals and standards. It is commonly evaluated through grades, test scores, and overall academic outcomes (Wang et al., 2023). Academic performance is a complex and multidimensional construct that encompasses various factors, including individual, contextual, and educational determinants. It is commonly associated with the grades or evaluations students achieve throughout their academic journey. Consequently, it is one of the most important educational outcomes and is often measured through tasks that evaluate knowledge, skills, and understanding. It encompasses students' perceptions of their success and achievement (Preda, 2024).

According to Narad and Abdullah (2016), academic performance refers to the knowledge acquired by a student, assessed through marks. It is also assessed by educational goals set collaboratively by students and teachers, which are to be achieved within a specific period. Academic performance encompasses the understanding of the material, applying knowledge, and the level of engagement in various learning activities. In this study, academic performance refers specifically to how effectively EFL postgraduate students acquire knowledge and develop skills within a blended learning. This reflects their progress, achievement, and success throughout their academic studies.

2.6.2 Factors Influencing Success in Blended Environments

Success in blended learning depends on several key interacting factors that affect student outcomes. Manaig et al. (2024) highlighted that these factors include teaching effectiveness, learning environment, instructional practices, student engagement, technology integration, and the adaptability of teaching methods. They emphasize that the quality of teaching is when teachers adapt by utilizing the benefits of both online and in-person learning, making students more likely to achieve better academic outcomes in blended contexts. A positive learning environment is also essential for student success. Thus, the study emphasized that blended learning significantly improves academic success when students actively

engage with interactive technologies and adapt to the educational experience. This approach is more successful and effective for fostering educational outcomes.

According to Rayyan et al. (2024), blended learning influenced student success by enhancing both self-efficacy and academic outcomes, which combines traditional face-to-face instruction with online educational strategies. This research provides a unique opportunity to engage and motivate students, resulting in better learning outcomes compared to traditional methods. Ultimately, this implies that students' confidence and belief in their abilities are directly related to achieving better academic performance.

Moreover, blended learning has been shown to significantly enhance academic performance, engagement, and student satisfaction among university students. It provides strong evidence supporting the adoption of developing educational settings, and encouraging further research into its long-term impacts of blended learning. These findings highlight the importance of educational institutions developing programs of blended learning to identify an effective approach for enhancing academic achievement (Tabassum et al., 2024).

Furthermore, there are several key factors for success in blended learning. According to Min and Yu (2023), effective learning management systems and tools significantly contribute to academic success. The research highlights that students actively use intentional strategies for knowledge construction, and teachers' positive attitudes strongly influence the success of blended learning. This indicates a combination of technological proficiency and effective pedagogical application. Ultimately, the importance of leveraging the convenience and flexibility of blended learning, alongside a focus on technological aspects of learning materials, in order to achieve better learning outcomes.

Additionally, Zhang and Dang (2020) stated that success factors influencing technology-supported blended learning environments. These include a combination of self-related, technological, and instructional design factors. These elements impact the shape of the learning climate, task-technology fit, and flexibility, which affect students' satisfaction and engagement.

Therefore, Anthony et al. (2022) examined the adoption and implementation of blended learning in higher education through 94 studies conducted between 2004

and 2020. The researchers analyzed the factors influencing the adoption of blended learning by students and teachers. The study emphasizes that successful integration of blended learning requires strong infrastructure and regular student feedback. The results also identify several prominent theoretical frameworks widely used to explore the adoption of blended learning.

2.6.3 The Relationship between Blended Learning and Academic Performance

The relationship between blended learning and academic performance is essential for the effective development of language learners. Tabassum et al. (2024) showed that integrating online and face-to-face (F2F) instruction in a blended learning environment improves language skills, increases student engagement, autonomy, and motivation, all of which contribute to achieving academic achievement among postgraduate students.

Numerous studies have demonstrated a positive correlation between blended learning and improved academic performance compared to the traditional method. Ming and Yu (2023) found that it has greater positive effects on student performance, particularly in enhancing learning motivation, academic emotions, and attitudes toward blended learning. It includes interactive and collaborative methods rather than traditional lecture-based approaches. This aligns with the student-centered, flexible, and interactive nature of blended learning, which contributes to better learning outcomes.

Moreover, Cao (2023) described the basic difference between blended learning and academic performance, identifying its ability to improve academic performance and student outcomes. They found that blended learning enhances student outcomes by combining the inherent flexibility of online learning with the support of face-to-face instruction, thereby boosting academic performance. Consequently, this approach provides students with continuous access to learning materials at any time, ensuring direct interaction with teachers and peers. The results demonstrated that academic achievement could be improved by increasing motivation, engagement, and positive attitudes, compared with traditional methods.

The combined online and face-to-face instruction within blended learning fostered students' academic success through engagement, autonomy, and motivation. Tabassum et al. (2024) indicated that blended learning improves academic performance and provides a more supportive educational experience that meets students' needs by

providing a more effective learning environment. This implementation of blended learning strategies leads to improved engagement and encourages better performance.

Accordingly, Tong et al. (2022) conducted a study on the effectiveness of blended learning in teaching, focusing on the improvement of students' academic achievement, self-study skills, and learning attitudes. The study's findings confirmed that blended learning had a positive impact on academic achievement in the experimental class compared to the control class. In addition, observations revealed that blended learning increased student interactions with teachers and improved their abilities and learning attitudes. The results also highlighted a statistically significant improvement in academic achievement in the blended learning group.

According to Mushtaq and Meena (2023), the relationship between student engagement and academic performance among secondary school students in Jammu and Kashmir. A self-developed questionnaire was distributed to 400 secondary school students using probability-sampling methods. The results revealed a significant positive relationship between student engagement in blended learning and academic performance. The results also showed that students who actively participate in the learning process demonstrated higher levels of motivation, focus, and commitment in their education. Researchers concluded that students could create engaging learning experiences to improve their academic performance and confidence to succeed in a fast-changing world.

Moreover, a positive relationship between blended learning (BL) and academic performance (AP), particularly when implemented effectively with strong course management and student interaction. According to Zeqiri et al. (2020), blended learning enhanced academic performance and also increased student satisfaction through improved interaction, flexibility, and effective course organization. Overall, many studies confirm that blended learning has a primarily positive influence on academic performance by enhancing flexibility, engagement, and access to learning resources. When implemented effectively, it facilitates a deeper understanding and supported students' achievement.

2.7 Previous Studies

Several studies focused on the perceptions and experiences of blended learning among students. Locally, Abdalla, et al. (2021) examined the effectiveness of using online

tools in language learning among Libyan university students. The participants were about 90 Libyan EFL undergraduate students from various colleges at Sebha University. A mixed-methods design is used by collecting both questionnaire and interview. Finding that indicate that using online tools in learning was effective and facilitate learning. Furthermore, the findings also improve and support the ability to communicate with peers.

Furthermore, Belazi and Ganapathy (2021) explored how a Station Rotation Model (SRM) with a blended learning approach could improve writing performance among Libyan secondary school students in Alkhoms, which has not been officially encouraged for using technology in schools. A quasi-experimental design consisted of 51 second-graders (experimental: 26, control: 25) The comparison of pre-test and post-test writing scores for 300-word essay indicated students' improvement. This study also employed focus group interviews for qualitative data. The results showed that the students had highly valued the online and collaborative aspects of the intervention. The findings also that a process-oriented learning view is better with an SRM writing course and develop alternative approaches to enhance EFL students' writing performance.

According to Alkharbash (2024) examined that the perceptions of using blended learning in EFL teachers and students at the English Departments of Zawia and Sabratha Universities in Libya (2022-2023). A mixed-methods approach with an online questionnaire based on Google Forms of 60 students and semi-structured interviews with 13 teachers. The findings showed that the use of blended learning positively with students and improved language proficiency when compared with traditional methods. The findings also noted numerous benefits of teachers integrated with blended learning but identified a lack of IT knowledge as a significant challenge. The study concluded that EFL teachers share strategies for assessing student achievement in blended learning environments, and that EFL syllabus designers integrate blended learning activities to enhance language skills.

Internationally, Several studies on learners' perception of blended learning have also been done (Ja'ashan, 2015; Alaidarous and Madini, 2016; Huang, 2016; Wright, 2017; Annamalai, 2019). Some studies have evidenced university students' positive perception of blended learning. For example, a study by Huang (2016) examined a study involving 296 non-English program students in higher education institutions in

southern China and found that over half of the participants expressed a clear preference for blended learning over either online or offline learning. This study investigated students' views on the integration of online and offline learning as interdependent to facilitate their education. The findings confirmed that students are balanced and effective in applying blended learning that meets diverse learning needs.

Several similar studies have examined learners' perceptions of blended learning in different contexts. Alaidarous and Madini (2016) emphasized the importance of incorporating technology into traditional learning to improve students' engagement in Saudi Arabia. Annamalai (2019) found that social media facilitated communication and collaboration among Malaysian students. Gyamfi and Gyaase (2015), who focused on African students, found that basic computer skills were a significant factor in fostering positive attitudes towards blended learning.

Wright (2017) investigated students' preferences for several learning modalities at a university in Malaysia. The results indicated that among 112 students, fewer than 5% selected a combination of learning modes, 50% favored face-to-face classroom sessions, and 37.5% chose online instruction. Students indicated that their preference for face-to-face learning stemmed from the enhanced comprehension achievable through this conventional technique, which provides direct access to teachers' assistance and support.

In Indonesia, several studies have indicated that students hold positive attitudes towards blended learning (Rerung, 2018; Rianto, 2020). Rianto (2020) used a questionnaire to ask students' opinions on the use of a university e-learning system in their courses. The findings revealed that while students found the e-learning platform was useful in their learning, they also reported some drawbacks, including technical issues and slow internet connectivity. Rerung (2018) concentrated her study on examining the perceptions of 30 students towards blended learning in the context of English listening and speaking skills. Her study had similar results to those of Huang's (2016), showing that the majority of students (21 out of 30) preferred blended learning. The students expressed that the traditional classroom meetings supported their online learning experience. While a specific reason for this preference of blended learning, it was presumed that students still exhibit a significant reliance on their teachers.

According to Tran and Nguyen (2023), the increase in blended learning (BL) has become a new norm for higher education. It encourages EFL students to adopt more

effective learning strategies and demonstrates the usefulness of a combined approach by showing how students can improve their communication skills and use language effectively. The questionnaire was collected from 165 undergraduate students in English at Thu Dau Mot University's Faculty of Foreign Languages by using Statistical analysis. The study examined students' opinions and unfavorable attitudes towards BL in two principal domains. Understanding of both the positive and negative aspects of BL by students' point of view to enhance language acquisition and proficiency among students. The findings of this study showed that students admire BL in order to enhance and enable them to learn English as a second language also makes learning more dynamic, effective, and enjoyable. The results also indicate the responses of students in improving English language proficiency through blended learning.

Another study was conducted by Nguyen (2024) to identify the effects of blended learning in higher education contexts where English is taught as a foreign language. Results revealed that from 15 high-quality studies published between 2022 to 2024 identified the core impacts of BL to boost language skills, student engagement, motivation, and encourage learner autonomy within EFL learning. These studies were obtained from reputable databases, specifically Scopus and Springer Link, which adds reliability to the findings. The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) method is used. The results of this study offer valuable insights for both learners and researchers to optimize BL strategies in EFL learning that improve effective language learning and academic success in inclusive higher education environments.

Besides, Al-Qudimi and Hameed (2024) investigated Yemeni EFL students' perceptions of learning English and the use of BL in English learning. A questionnaire was distributed to 51 Yemeni EFL students in Resalty Academy in order to get their experiences and perceptions of blended learning. The results of the study revealed that blended learning is effective in improving English language learning. The results also showed that students have a positive perception that the implementation of blended learning strategies can lead to increased engagement and motivation among students in their studies.

Furthermore, the study by Sylvia et al. (2024) investigated the effectiveness of blended learning in enhancing oral proficiency among students in aviation schools. Using a quantitative experimental design with a sample of 120 students from two Indonesian

aviation polytechnics (24 from Medan and 96 from Surabaya), the study compared speaking skills learning strategies and outcomes between traditional face-to-face instruction and blended learning environments. The study demonstrated that a well-designed integration of conventional classroom instruction with digital tools significantly improves students' proficiency in English speaking. The findings also encouraged students to engage with the course material and develop strong communication skills. Moreover, collaborative activities that combine in-class and online components effectively develop speaking skills and create an interesting classroom.

Moreover, a study conducted by Oskarita and Arasy (2024) examined how digital tools influence collaborative learning among secondary school students. The analysis is grounded in data collected from 300 students across five schools through surveys and focus groups. The study also showed that digital environments encouraged more open peer communication, allowing students to share ideas more comfortably and contribute to richer group discussions. The study concluded that digital tools play a vital role in enhancing collaborative learning and should be incorporated into instructional practices to prepare learners for a technologically driven future.

2.8 Research Gap

Despite the growing interest in blended learning (BL), most studies focus on undergraduate students in stable, well-resourced contexts. Little attention has been given to postgraduate learners, especially in conflict-affected or resource-limited settings. There is a lack of research on Libyan EFL postgraduate students' perceptions of blended learning. This study addresses that gap by exploring how these students use BL to maintain academic continuity amid disruptions like power outages and campus closures.

2.9 Summary of the Chapter

This chapter has reviewed the literature on blended learning, with a specific focus on higher education and EFL contexts. It has discussed the definition of blended learning and its various models, as well as its benefits and role in enhancing EFL education. Furthermore, it has highlighted postgraduate students' perceptions of blended learning and the challenges they encounter. It has also examined the relationship between blended learning and academic performance. The next chapter illustrates the research design and the instruments used to collect the data for this study.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the methodological approaches adopted in this study. It includes the research design, data collection instruments, participants, data collection procedure, data analysis, and ethical considerations that guided all stages of the research process.

3.1 Research Design

Creswell (2014) defines a research design as a plan that links theoretical research problems to suitable and practical empirical research studies, providing clear guidance on research methods. According to Creswell and Plano Clark (2017), a mixed-methods research design is utilized, combining quantitative and qualitative approaches to achieve more comprehensive coverage of a wide range of findings. Kumar (2018) also highlights that a research design is the methodological framework chosen by a researcher to answer their questions with validity, objectivity, accuracy, and cost-effectiveness.

Therefore, in this study, the researcher employed a mixed-methods research design to collect data using both quantitative and qualitative approaches. Data were collected using two main instruments: an online questionnaire and semi-structured interviews. First, the quantitative approach was employed through an online questionnaire to explore students' general perceptions of blended learning. This instrument was designed to collect measurable data on students' perceptions and experiences of blended learning implementation in their postgraduate programs. Descriptive statistics were used to generate frequencies, percentages, and means, which were useful for identifying the main trends and patterns in students' responses. Secondly, the qualitative approach was obtained through semi-structured interviews to gain insight into students' actual experiences, views, and attitudes towards the use of technology in blended learning. This approach allowed for a deeper understanding of students' interactions within blended learning by generating meaningful insights through the identification and analysis of emerging themes across participants' narratives. Hence, this mixed-methods

approach facilitated the integration of quantitative and qualitative data, enhancing the depth and credibility of the study's findings.

3.2 Data Collection Instruments

In this study, a mixed-methods approach was used to collect data, integrating both quantitative and qualitative data. The researcher employed two primary data collection instruments: an online questionnaire and semi-structured interviews.

3.2.1 Online Students' Questionnaire

A questionnaire is a research instrument that consists of a series of questions that aim to collect information from respondents about their attitudes, experiences, or opinions. (Ranganathan and Caduff, 2023). It can be used to collect both quantitative and qualitative data and contains both open-ended and closed-ended questions. It can be self-administered or administered by a researcher (McLeod, 2023).

According to McLeod (2023), online questionnaires typically consist of a set of organized questions that participants can answer electronically using devices such as computers, tablets, or smartphones. They are used to reach a wide audience, obtain rapid responses, and simplify data analysis through digital tools. Furthermore, in the current study, an online questionnaire was used to evaluate participants' perceptions of the learning environment in a blended learning course.

The online questionnaire was designed using Google Forms to facilitate broad access and efficient data collection from a large sample of EFL postgraduate students. It began with a brief introduction which described its purpose and significance of the study and explained that all responses would be kept confidential and anonymous. The questionnaire was divided into four main sections: section one focused on demographic data and consisted of five specific items (age, gender, nationality, level of education, and stage of study). Sections two, three and four were formulated using a five-point Likert scale ranging from (1) to (5) as follows: Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), and Strongly Agree (5). This was used to collect detailed data on postgraduate students' perceptions of blended learning. These three sections contained 34 items and examined three main themes, namely section 2, 'Experiences with Blended Learning', consisted of 12 Likert-scale items, section 3, 'Benefits of Blended Learning', included 11 items, and section 4, 'Challenges of Blended Learning', comprised 11 items. Each of these main sections was attached with an optional open-

ended question, offering an opportunity for respondents to add any perspectives or opinions not fully captured by the closed questions.

The combination of both quantitative and qualitative data provides greater insight into participants' experiences. The questionnaire was distributed through emails and social media platforms to achieve broad outreach. Data obtained from those ended responses were analyzed by using SPSS for statistical analysis, while open-ended responses were interpreted thematically to extract meaningful themes. Before full implementation, a pilot study was conducted to ensure clarity and reliability, leading to slight improvements to the clarity and structure. Collectively, the questionnaire was designed to be clear, direct, and logically organized, free of ambiguity.

3.2.2 Semi-Structured Interviews

King, Horrocks and Brooks, (2019) define an interview as a way of interacting with individuals or groups to gather information, for example, views and attitudes. Semi-structured interviews were identified as the most suitable method. This method allowed participants to express their opinions in a manner that other techniques might not have facilitated (Punch and Oancea, 2014). Semi-structured interviews are commonly used when the researcher focuses on a deeper understanding of participants' perspectives, rather than obtaining a general overview of the phenomenon.

In this study, semi-structured interviews were conducted as a complementary qualitative method to the quantitative survey to gain a deeper understanding of postgraduate students' experiences with blended learning. This approach provided an overview of students' perspectives by integrating quantitative results and qualitative perspectives. Eight postgraduate students who had previously completed the online questionnaire were purposively selected to participate in the interview session. Each interview lasted approximately 25 to 30 minutes and was conducted through video calls (using Zoom and Google Meet) or audio recordings, depending on the participant's preference and technological accessibility. Besides, these interviews allow for further prompts, investigations, probes, and clarifications, as well as to engage the interviewee and acquire further information, clarify or deepen the understanding of a response. Thus, to ensure whether the questions were appropriate and easy to understand, the researcher first asked two students who had participated in the questionnaire to refine the final interview guide. Informed consent was obtained from all participants to ensure

accuracy, strict confidentiality, and to preserve their privacy. During the interviews, the researcher maintained a neutral approach carefully, avoiding any form of direction or manipulation of the participants' responses to ensure that the data reflected the results accurately and without bias.

3.3 Pilot Study

The primary objective of the pilot study was to ensure that the data collection tools (questionnaire and interview questions) provide an opportunity to achieve the research objectives and collect data efficiently and accurately. A pilot study was conducted to evaluate the validity and reliability of the data collection instruments before their use in the main study. This study included a small group of five EFL postgraduate students and two professors from the University of Al-Zawia. These participants were randomly selected based on their experience of blended learning and were not included in the final study sample. Participants found the content relevant but suggested that the questionnaire was too long and its structure could be simplified to reduce fatigue and improve clarity. Then, based on the feedback collected, the questionnaire questions were refined, revised, and rephrased to ensure clarity and facilitate ease of analysis. The questions were designed to cover all relevant aspects of the research objectives. In addition, the interview questions were carefully reviewed, and a thorough discussion was held to ensure they were clear, direct, and addressed the main topics associated with the topic. However, there were no major changes to the feedback, as it was already clear and comprehensive. Furthermore, this process allowed for the identification of any ambiguities, inconsistencies, or technical issues with the instruments used.

3.4 Participants

The participants of this study were postgraduate students enrolled in the English Department at the University of Zawia during the 2024–2025 academic year. A total of sixty-eight (68) students participated in the quantitative data collection by completing an online questionnaire distributed through emails and study groups. Eight (8) students were purposively selected for qualitative data collection through semi-structured interviews based on their extensive experience with blended learning and consistently high academic achievement. Moreover, all postgraduate students were asked whether they would like to participate in the interviews, but not all of them responded. Before the interviews began, ten positive responses were received and documented. The

sample included seven (7) males and sixty-one (61) females of different ages. Eligibility for participation requires having at least one year of experience with blended learning environments. All participants were Libyan postgraduate students or recent graduates who volunteered to take part in the study. They were clearly informed about the research goals and assured of the confidentiality and anonymity of their responses. However, to facilitate participation, the researcher maintained consistent communication with participants by scheduling online interviews at their preferred dates and times. Thus, this approach aims to provide a clear understanding of Libyan EFL postgraduate students' perceptions and experiences with blended learning and academic performance.

3.5 Data Collection Procedures

The data collection process began with the administration of an online questionnaire, which was designed to gather quantitative data on students' perceptions and academic performance through blended learning. The questionnaire was created using Google Forms. The researcher shared the link with participants through emails and study groups. To ensure adequate and timely responses, participants received weekly reminders urging them to complete the survey before the deadline. All participants willingly and voluntarily took part in the survey. Besides, it was strongly emphasized that all responses would be treated confidentially and stored securely to protect participants' privacy. Similarly, before being administered to the main sample, the questionnaire was pilot tested with a small group of students to assess its clarity, relevance, and reliability. Feedback from the pilot test was thoroughly reviewed, and minor adjustments were made to ensure the questionnaire was appropriate for the primary data collection phase.

A semi-structured interview was employed to explore students' experiences with blended learning in greater depth. After completing the questionnaire, the researcher invited those who expressed interest and willingness to provide more details and in-depth information to participate in the interview. However, the researcher encountered some challenges, including limited opportunities for face-to-face interaction and time constraints. Consequently, all interviews were mainly conducted online, with seven participants, and carried out via video calls and one through an audio recording, depending on the participants' preferences. The preference for video calls can be attributed to the fact that visual communication facilitates clearer expression and more

effective interaction during discussions. A single interview was conducted via audio recording due to limited internet access, connectivity issues, and time constraints, which prevented the participant from joining a video call. Furthermore, open-ended questions were used during the interviews to encourage participants to express their opinions and the challenges they face in blended learning. The majority of the interviews lasted approximately 25 to 30 minutes, which allowed for a detailed exploration of their views and experiences. Explicit consent was obtained from each participant individually before any interview was recorded to ensure ethical compliance. The recorded interviews were saved, transcribed, and analyzed. Thus, this approach enabled the researcher to collect reliable data reflecting the experiences and opinions of the participants.

3.6 Data Analysis

In this mixed-method study, two types of data were collected: quantitative data through an online questionnaire and qualitative data through semi-structured interviews. Both sets of data were analyzed separately. The quantitative data were analyzed using the Statistical Package for the Social Sciences (SPSS). This program is widely used by researchers, academics, analysts, and institutions for tasks such as descriptive statistics and interpreting numerical results from respondents' answers to the questionnaire. In addition, the thematic analysis method was employed to analyze the qualitative data extracted from the interviews. The process of analyzing qualitative data began with transcribing the interview recordings and coding these transcripts to identify meaningful units. In the next step, key themes and emerging patterns were sought from the coded data to compare students' perspectives on blended learning (BL). The results of the interviews were categorized into thematic categories to facilitate analysis and interpretation. Finally, the researcher carefully reviewed these themes to ensure that they were representative of the original data and provided accurate insights into students' experiences. According to Braun and Clarke (2012), the thematic analysis approach was employed to gain insight into students' perceptions of blended learning. Thematic analysis is utilized to identify, analyze, and report recurring patterns (themes) within data (Grbich, 2013).

3.7 Ethical Considerations

The ethical considerations were essential in this study. The researcher obtained permission to record the interviews and informed participants that their answers would be used only for this research. In addition, the purpose of the study was explained to each participant, and they were kindly asked to supply accurate information, which was carefully protected. Identifiable information, including the online survey, survey results, audio recordings of interview calls, and video recordings, was securely saved. Besides, participants were informed that they could skip any question or pause the interview if they felt uncomfortable. Verbal consent was confirmed before the recorded interview, and participants were reminded to discontinue at any stage without penalty. This approach supported a respectful and ethical approach, consistent with established guidelines for ethical practice in educational settings. Additionally, this study addresses some potential ethical concerns related to confidentiality, anonymity, data protection, the risk of research bias, and harm to participants (Cohen et al., 2011).

3.8 Validity and Reliability

Validity and reliability are two important concepts used to determine the quality of a study.

3.8.1 Validity

In quantitative research, validity is achieved when a scale or questionnaire can measure exactly what it is intended to measure (Creswell, 2014). In this study, the supervisor and two professors from the English department faculty evaluated the content validity of the questionnaire by examining its alignment with the research questions and the clarity of its wording. Furthermore, this review ensured that all questions covered the different aspects of the study topic comprehensively, thereby supporting the content validity. The researcher made all the necessary adjustments. The questionnaire was distributed to a small sample of students (n = 5) to test their understanding of the questions and to identify any ambiguities or technical issues that could affect the quality of the collected data. Thus, this process helped to enhance the instrument's face validity and ensure that it could fulfil its purpose of collecting accurate and relevant data.

3.8.2 Reliability

Reliability refers to two main concepts: the accuracy of an instrument, and whether all the items in a scale measure the same thing. In this study, the researcher used

Cronbach's alpha to test the reliability of the questionnaire. Cronbach’s Alpha is a statistical measure used to assess the internal consistency or reliability of a set of items in a survey, test, or questionnaire. It indicates whether the items actually measure the same underlying concept or construct in a cohesive manner (Bujang et al., 2018). According to Tavakol and Dennick (2011), the acceptable alpha values for reliability are typically considered to range from 0.70 to 0.95. The Cronbach's alpha for all variables in the online student survey questionnaire was 0.805, which is an acceptable level to proceed further with the study.

3.9 Summary of the Chapter

In a detailed manner, this chapter presented the research design, data collection instruments, pilot study, research sample, procedures, and ethical considerations in detail. The next chapter will present the findings and results from the data analysis.

CHAPTER FOUR
DATA ANALYSIS AND RESULTS

4.0 Introduction

In this chapter, two different types of data were analyzed quantitatively and qualitatively. Quantitative data were collected through an online questionnaire and analyzed with SPSS software. At the same time, qualitative data were collected through semi-structured interviews, and analyzed using a thematic approach. The extracted data are textual, and the study is an exploratory investigation into the views and experiences of postgraduate students towards blended learning.

4.1 Analysis of the Quantitative Data (Postgraduate Students' Questionnaire)

Quantitative data were collected from postgraduate students' questionnaires and analyzed to examine their perceptions of blended learning. The following tables present the results obtained from the questionnaire items in order to answer the research questions of the study.

4.1.1 Section One: Demographics of the Participants

A total of sixty-eight (68) postgraduate students participated in the survey. Table 4.1 summarizes their demographic characteristics.

Table 4.1: Demographics of the Participants

Demographic Variable	Category	Frequency	Percentage%
Age	20-25	5	(7.4%)
	26-30	24	(35.3%)
	31-35	24	(35.3%)
	36 and above	15	(22.1%)
Gender	Male	7	(10.3%)
	Female	61	(89.7%)
Nationality	Libyan	68	(100%)
Program Stage	Preliminary stage	8	(11.8%)
	Thesis writing stage	45	(66.2%)
	Others	15	(22.1%)
Experience	Less than 1 year	14	(20.6%)

	1-2 years	20	(29.4%)
	3-4 years	19	(27.9%)
	More than 4 years	15	(22.1%)

Table 4.1 presents the demographic details of the participants' responses. The total number of participants was sixty-eight (68), with strong female representation (89.7%). Over two-thirds of respondents were aged between 26 and 35 years (70.6% combined). The majority of respondents were engaged in the thesis-writing stage of their postgraduate studies (66.2%). Postgraduate students' experience with blended learning was quite varied, with the largest group having one to two years' experience (29.4%), and over half reported more than one year of experience.

4.1.2 Reliability Analysis of the Questionnaire Items

Before conducting the data analysis, the reliability and validity of the questionnaire items were assessed to ensure the accuracy and consistency of the findings. Reliability analysis was conducted using Cronbach's alpha to evaluate the internal consistency of each section of the questionnaire. As illustrated in Table 4.2 below.

Table 4.2: Reliability of the Questionnaire Sections Using Cronbach's Alpha

SECTIONS	CATEGORY	CRONBACH ALPHA
SECTION 2	Postgraduate Students' Experiences	0.771
SECTION 3	Benefits of Blended Learning	0.733
SECTION 4	Challenges of Postgraduate Students	0.842
TOTAL		**0.805**

Table 4.2 summarizes the reliability analysis of each questionnaire section (experiences, benefits, and challenges). Cronbach's alpha was calculated by using SPSS for each section to estimate the instrument's reliability. All sections showed good to excellent internal consistency with Cronbach's alpha values ranging from 0.733 to 0.842. The alpha value for all sections is above 0.800, which indicates high reliability of the instrument. Thus, the total Cronbach's alpha for the entire questionnaire is 0.805, which is considered a high level of reliability for the whole questionnaire items. Section 4, which focuses on "Challenges," demonstrated the highest reliability ($\alpha = 0.842$), indicating excellent internal consistency in capturing participants' views on the difficulties of blended learning. Moreover, sections 2 concerning "Experiences" and sections 3 covering "Benefits" also showed acceptable reliability ($\alpha = 0.771$ and $\alpha =$

0.733, respectively), which are considered good values. Overall, the results indicated high instrument reliability, where the questionnaire is a reliable tool for assessing students' experiences, the benefits of blended learning, and the challenges they encounter.

4.1.3 Descriptive Analysis of Questionnaire Sections

Descriptive statistics were computed for the mean scores, standard deviation, standard error, and confidence intervals of each section. These are summarized in Table 4.3.

Table 4.3: Descriptive Statistics for Questionnaire Sections

SECTIONS	MEAN	STD.DEVIATION	STD. ERROR	95% CONFIDENCE INTERVAL FOR MEAN	
				lower bound	upper bound
SECTION 2	3.966	0.488	0.591	3.837	4.0796
SECTION 3	4.01	0.457	0.558	3.899	4.125
SECTION 4	3.22	0.667	0.820	3.056	3.384
TOTAL	**3.748**	**0.352**	**0.428**	**3.662**	**3.833**

Table 4.3 presents the descriptive statistics for the three main sections of the questionnaire: Section 2 (Experiences), Section 3 (Benefits), and Section 4 (Challenges), summarising key statistical measures for each section in relation to various aspects of blended learning. It represents the mean score, standard deviation, standard error, and the 95% confidence intervals for the mean of these sections. As shown, the mean score for section 2 was 3.966 (SD = 0.488, SE = 0.591), indicating moderate satisfaction with blended learning. Similarly, the mean score for section 3 was 4.01 (SD = 0.457, SE = 0.558), reflecting a slightly higher level of positive usage of blended learning. The mean score for section 4 was 3.22 (SD = 0.667, SE = 0.820), indicating that more challenges or barriers were experienced within blended learning.

Section 3 had the highest average score (M = 4.01), followed closely by Section 2 (M = 3.966), while Section 4 had the lowest average score (M = 3.22). In sum, despite the differences between the three sections, the total mean score for the questionnaire was 3.748. Therefore, the means suggest a positive trend across all sections.

The table also shows that the standard deviation values provide insight into the variability of responses within each section. The high standard deviation for Section 4 indicates greater variability in the responses, yielding a value of 0.667, which reflects

a wider range of experiences of obstacles to blended learning. The total standard deviation score for all sections was 0.352, indicating a high degree of consistency in overall responses across the entire questionnaire. Additionally, the standard error (SE) values for each section ranged from 0.558 to 0.820, with a total score standard error of 0.428. These relatively low standard error values suggest that the sample means are precise estimates of the population means, indicating greater reliability and consistency across the data. The lower standard errors support the stability of the results and reinforce the credibility of the observed group means.

Furthermore, the 95% Confidence Intervals (CIs) for the mean scores of each questionnaire section indicate positive perceptions of blended learning. The confidence intervals for "section 2" ranged from 3.837 to 4.0796; for "section 3" from 3.899 to 4.125; and for "section 4" from 3.056 to 3.384. Notably, 'Section 3' has the highest upper and lower bounds among all sections. Finally, the total confidence interval ranged from 3.662 to 3.833, providing a general trend of positive perception toward blended learning among Libyan EFL postgraduate students.

4.1.4 Section Two: Experiences with Blended Learning

Twelve statements were designed to measure students' perceptions and experiences with blended learning were each rated on a five-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Table 4.4 shows the percentage distribution of responses for each statement.

Table 4.4: Experiences with Blended Learning

N	STATEMENTS	SD	D	N	A	SA
1	Blended learning is officially adopted in my postgraduate program and effectively meets my academic needs.	5.9%	11.8%	25.0%	36.8%	20.6%
2	Blended learning is an effective approach to enhance postgraduate students' academic performance.	2.9%	0.0	11.8%	52.9%	32.4%
3	Blended learning is more convenient than traditional learning.	0.0	5.9%	11.8%	52.9%	29.4%
4	Blended learning makes the learning experience more interactive and engaging.	5.9%	1.5%	7.4%	42.6%	42.6%
5	Blended learning facilitates powerful communication and meaningful interaction with lecturers and peers both inside and outside the classroom.	1.5%	0.0	11.8%	51.5%	35.3%
6	I enjoy using blended learning for its easy access to a variety of online resources that improve understanding of academic materials.	1.5%	0.0	16.2%	57.4%	25.0%
7	I feel more confident while using technology for academic purposes	1.5%	0.0	26.5%	39.7%	32.4%
8	Instructors provide adequate support and training for successful participation in blended learning	5.9%	16.2%	32.4%	29.4%	16.2%

9	I find it easier to retain information when using blended learning.	1.5%	1.5%	17.6%	44.1%	35.3%
10	I am enthusiastic about using blended learning to enhance my future learning.	0.0	0.0	27.9%	47.1%	25.0%
11	Blended learning helps students become more independent, self-motivated and better at time management.	4.4%	0.0	13.2%	48.5%	33.8%
12	Blended Learning assists postgraduate students acquire essential academic skills and apply them in real-world contexts.	5.9%	0.0	20.6%	36.8%	36.8%

Note: SD=Strongly Disagree, D= Disagree, N= Neutral, A= Agree, SA=Strongly Agree

Table 4.4 provides a comprehensive overview of participant responses to the statements in "Section 2: Experiences with Blended Learning", illustrating the percentage distribution across each point on the Likert scale (strongly disagree to strongly agree) for each statement. A descriptive analysis was conducted to investigate students' perceptions of a blended learning environment. Students' responses are shown as percentage frequencies on the 12 items in this section of the questionnaire (N = 68 students). The majority of students expressed strong positive learning perceptions.

The survey results show a generally positive attitude towards the blended learning experience among postgraduate students. A higher percentage of students agreed with the statements about their experiences of blended learning than disagreed with them. Specifically, a significant majority of the students expressed their agreement with twelve statements related to their experiences with blended learning.

The majority of participants in Statement 1 were in agreement, with 57.4% agreeing (36.8% agree, and 20.6% strongly agree), 25.0% were neutral, and 17.7% disagreed. The response is less conclusive. Meanwhile, Statement 2 indicates that agreement of blended learning enhances academic performance with 85.3% (comprising 52.9% who agree and 32.4% who strongly agree), and very few respondents indicated disagreement. Similarly, Statement 3 found that blended learning is more convenient compared to traditional education, with 82.3% (52.9% agree, 29.4% strongly agree).

Engagement and interaction in statement 4 were also viewed positively; 85.2% (42.6% agree, 42.6% strongly agree) indicated that blended learning made the educational process more interactive and engaging. For Statement 5, 86.8% (51.5% agree, 35.3% strongly agree) strongly respected the participants' views on the ability to facilitate communication and interaction with both lecturers and peers. Similarly, high agreement was observed for Statement 6 regarding the enjoyment of easy access to online learning

resources, with 82.4% of the sample agreeing with this (57.4% agree, 25.0% strongly agree).

On the other hand, not all aspects received consistently positive responses, with some areas revealing mixed perceptions or potential improvement. For instance, regarding Statement 7, "I feel more confident while using technology for academic purposes. The significant majority of 72.1% (39.7% agree, 32.4% strongly agree) responded positively. However, a notable 26.5% of students responded neutrally, indicating that not all students may have benefited equally. Although more than half of the responses were positive, the findings cannot be considered entirely favorable. Regarding Statement 8, less than half of the participants expressed low agreement with 45.6% combined (29.4% agree, 16.2% strongly agree), while one-third of the respondents selected "Neutral" 32.4%. Nearly one-quarter (22.1%) chose disagreement (16.2% disagree, and 5.9% strongly disagree). Thus, this indicates a significant area for improvement in the provision of instructor support and training within blended learning environments, as well as potential gaps in pedagogical preparation or structured support systems.

The data obtained from Statement 9 indicates a strong positive perception among postgraduate students regarding the easier retention of information with blended learning. A total of 79.4% of participants agreed with this statement, with (44.1% agree, 35.3% strongly agree). Disagreement was minimal, with only 3.0% of respondents expressing disagreement, whereas 17.6% chose a neutral response. Besides, Statement 10 revealed a high level of enthusiasm for the future use of blended learning, with 72.1% of participants agreeing (47.1% agree, 25.0% strongly agree). Notably, there were no negative responses indicating disagreement, reflecting a clear readiness to continue and spread the use of blended learning.

Furthermore, in Statement 11, the respondents largely agreed that blended learning supports learner autonomy, self-motivation and better time management, with 82.3% (48.5% agree, 33.8% strongly agree). This indicates a strong perception of blended learning to develop essential self-management, and motivation. The results in Statement 12 also showed that blended learning assists students in acquiring and applying essential academic skills in real-life situations, with a strong majority of 73.6% (comprising 36.8% agree and 36.8% strongly agree). The responses in this

section also highlight the positive aspects of students' experiences with blended learning in their postgraduate studies.

4.1.5 Section Three: Benefits of Blended Learning

Eleven statements were used to assess students' perceptions of the benefits associated with blended learning. The results are displayed in Table 4.5

Table 4. 5: Benefits of Blended Learning

N	STATEMENTS	SD	D	N	A	SA
1	Blended learning reduces the financial costs associated with traditional education.	4.6%	13.8%	13.8%	44.6%	23.1%
2	Blended learning ensures the continuity of education during crises and allows students to easily catch up on missed classes.	0.0	0.0	9.2%	40.0%	50.8%
3	The flexibility of blended learning allows me to learn at my own pace and schedule.	0.0	0.0	15.4%	56.9%	27.7%
4	Blended learning provides personalized learning experiences that meet each student's requirements and abilities.	3.1%	0.0	10.8%	67.7%	18.5%
5	Blended learning helps students to become more independent and reduces their workload in class.	0.0	1.5%	16.9%	47.7%	33.8%
6	Blended learning improves my digital and technological skills.	6.2%	0.0	12.3%	46.2%	35.4%
7	Instructors provide immediate feedback in blended learning that helps students to improve their academic performance.	9.2%	13.8%	29.2%	35.4%	12.3%
8	BL prepares students for a globalized world by developing 21st century skills.	0.0	1.5%	16.9%	44.6%	36.9%
9	Blended learning reduces academic stress and promotes psychological comfort.	3.1%	3.1%	10.8%	55.4%	27.7%
10	Blended learning makes online learning more enjoyable for students.	0.0	1.5%	20.0%	44.6%	33.8%
11	Blended learning enables students to choose their preferred learning style and review materials anytime.	6.2%	1.5%	3.1%	47.7%	41.5%

The above table illustrates the detailed responses to the eleven statements designed to measure students' perceptions of the benefits of blended learning. As shown in Table 4.3, the number of respondents who rated 'agree' and 'strongly agree' to all items of this variable was higher than that who rated 'disagree' and 'strongly disagree'. This indicates a "highly positive perception" of blended learning among postgraduate students.

The majority of students viewed Statement 1 positively, perceiving it as cost-effective, with 67.7% (44.6% agree, 23.1% strongly agree). Meanwhile, 18.4% disagreed, and 13.8% remained neutral. This suggests that cost savings may not be perceived consistently across all student responses. Hence, Statement 2 revealed one of the strongest levels of agreement with 90.8% (40.0% agree, 50.8% strongly agree), and no

disagreement score. Respondents validated its significance in helping students catch up on missed classes during crises.

Similarly, Statement 3 was highly valued, with 84.6% (56.9% Agree, 27.7% strongly agree) that blended learning provides valuable flexibility and schedule, with low neutral (15.4%) and no disagreement. This benefit was strongly supported. Regarding Statement 4, with 86.2% Strong agreement (67.7% agree + 18.5% strongly agree) that it effectively meets learning needs and styles. Only 10.8% were neutral, with 3.1% disagreed (Only "strongly disagree). The results for Statement 5 also reflect positive feedback among respondents, with 81.5% agreeing (47.7% agree and 33.8% strongly agree). These findings reflect a strong consensus that blended learning supports student independence and reduces the intensity of in-class demands. The small percentages of neutral responses (16.9%) and disagreement (1.5%) are very low.

Furthermore, Statement 6 focused on digital skill development, which was also strongly supported, with 81.6% (46.2% agree, 35.4% strongly agree). These benefits require engagement with technology. While 12.3% were neutral and 6.2% strongly disagreed, there were no mentions of disagreement, with all responses being positive. However, Statement 7, which focused on timely instructor feedback, showed more mixed reactions from respondents than the others, with only 47.7% of students agreeing (35.4% agree and12.3% strongly agree), 29.2% being neutral, and 23% (9.2% strongly disagree, 13.8% disagree). Specifically, the data for Statement 8 demonstrate strong consensus with 81.5% of participants agreeing (44.6% agree, 36.9% strongly agree). Despite a small percentage of neutrality at 16.9% and 1.5% disagreeing, the strong agreement supports the idea that participants recognize the role of BL in preparing them for modern education.

In addition, Statement 9 shows that a large majority of participants (83.1%) expressed agreement (55.4% agree and 27.7% strongly agree), while disagreement (3.1% each of disagree and strongly disagree) and neutrality (10.8%) were very low. This indicates a positive perception that participants feel more comfortable and less stressed in their academic environment. Regarding the enjoyable aspects of blended learning, Statement 10 received significant agreement from 78.4% of participants (44.6% agree, 33.8% strongly agree). While only 1.5% disagreed and a low neutral response of 20%, indicating that students find online components of blended learning enjoyable.

Finally, Statement 11 received the highest level of agreement, with 89.2% of respondents showing very low disagreement (1.5% disagree, 6.2% strongly disagree) and minimal neutrality (3.1%). This was the highest level of agreement recorded among all statements, highlighting the strong value of learner autonomy and accessibility as the most universally appreciated benefits of blended learning. Students can control their learning process and access materials at any time. Overall, the data in this section indicated the success of the educational process about the benefits of blended learning for postgraduate students, particularly its flexibility, continuity during crises, personalized learning, and skill development.

4.1.6 Section Four: Challenges of Blended Learning

The questionnaire included eleven items designed to assess the various difficulties encountered by postgraduate students in blended learning. The findings are presented in Table 4.6.

Table 4. 6: Challenges of Blended Learning

N	STATEMENTS	SD	D	N	A	SA
1	Students struggle with the high initial costs of technology required for blended learning.	10.6%	6.1%	36.4%	36.4%	10.6%
2	Internet connectivity issues sometimes disrupt my online learning.	3.0%	9.1%	13.6%	43.9%	30.3%
3	I sometimes encounter difficulty organizing and using digital resources in blended learning.	1.5%	19.7%	22.7%	45.5%	10.6%
4	I have trouble in using all the online tools and programs effectively in blended learning.	7.6%	28.8%	25.8%	27.3%	10.6%
5	Blended learning restricts opportunities for face-to-face interaction with teachers	4.5%	33.3%	27.3%	24.2%	10.6%
6	Blended learning may contribute to feelings of isolation and disconnection	10.6%	37.9%	25.8%	24.2%	1.5%
7	I find it difficult to stay attentive during online learning sessions.	12.1%	31.8%	28.8%	15.2%	12.1%
8	I find it difficult to participate in online discussions and collaborative activities.	4.5%	15.2%	39.4%	22.7%	18.2%
9	Limited access to technology hinders academic performance and reduces postgraduate students' ability to get the advantages of blended learning.	6.1%	10.6%	21.2%	50.0%	12.1%
10	Blended learning may make it difficult to balance personal responsibilities.	4.5%	33.3%	30.3%	24.2%	7.6%
11	Blended learning increases student workload associated with managing both online and in-person components.	3.0%	19.7%	27.3%	37.9%	12.1%

The data in the table (4.6) presents participants' perceptions of the 11 statements about their challenges with blended learning. This section aims to identify the obstacles postgraduate students encounter in blended learning; the majority of students expressed

their agreement. Responses in this section are more mixed compared to earlier sections, where students face different types of barriers.

A major point of concern appears to be the financial barrier, with 47.0% (36.4% agree, 10.6% strongly agree) of respondents agreeing with Statement 1, while 16.7% (10.6% strongly disagree, 6.1% disagree) expressed disagreement. The remaining 36.4% were neutral. There are mixed suggestions towards neutrality and agreement that costs are a struggle. Consequently, a significant majority of respondents in statement 2, 74.2% (43.9% agree, 30.3% strongly agree), believe that internet connectivity issues sometimes interfere with their learning experience. Disagreement was very low at 12.1% (3.0% strongly disagree, 9.1% disagree), with 13.6% neutral. This indicates that internet connectivity issues can hinder effective blended learning. Similarly, for statement 3, a majority of 56.1% (45.5% agree, 10.6% strongly agree) of participants agreed that they sometimes face challenges when trying to organize and use digital resources. While 21.2% (1.5% strongly disagree, 19.7% disagree) disagreed and 22.7% remained neutral, these results point to a need to organize resources within blended learning.

However, some other challenges and opinions in responses to statement 4 were quite divided, with nearly equal levels of agreement and disagreement. Specifically, 37.9% (27.3% agree, 10.6% strongly agree) indicated difficulties in using online tools effectively. Disagreement was substantial at 36.4% (7.6% strongly disagree, 28.8% disagree) along with a high percentage of neutral responses at 25.8%. This indicates mixed experiences among students regarding their ability to use online tools. Meanwhile, the results for Statement 5 show mixed perceptions of blended learning's impact on teacher interaction, with 34.8% (24.2% agree, 10.6% strongly agree) agreeing that blended learning restricts face-to-face interaction. In contrast, 37.8% disagreed (4.5% strongly disagree, 33.3% disagree), and 27.3% remained neutral. These findings suggest that students experience the blend of online and in-person interaction differently.

The perception of isolation in Statement 6 was divided, with more respondents tending towards disagreement. With 48.5% (10.6% strongly disagree, 37.9% disagree) disagreeing that blended learning contributes to feelings of isolation, while 25.7% (24.2% agree, 1.5% strongly agree) agreed, with 25.8% neutral. In this statement 7, a

minority of students, 27.3% (15.2% agree, 12.1% strongly agree) reported that they struggle with attention during online sessions. While a higher percentage of 43.9% (12.1% strongly disagree, 31.8% disagree) disagreed, and 28.8% remained neutral. This means that some students find it difficult to pay attention during online classes, but many do not consider it a significant issue.

Furthermore, Statement 8 showed a high degree of neutrality at 39.4%, while 40.9% of participants agreed (22.7% agree, 18.2% strongly agree) that they face difficulty with online discussions and collaborative tasks. Disagreement was indicated by 19.7% (4.5% strongly disagree, 15.2% disagree), which indicated difficulties experienced with online collaboration and a lack of engagement. Additionally, a high level of agreement was observed for Statement 9, with 62.1% (50.0% agree, 12.1% strongly agree), agreeing that a lack of access to technology and missing out on the full benefits of blended learning. While 16.7% (6.1% strongly disagree, 10.6% disagree) disagreed, and 21.2% were neutral. These findings show that external technological challenges represent a significant issue for postgraduate students. However, received mixed responses in Statement 10, with 31.8% (24.2% agree, 7.6% strongly agree) agreeing that blended learning may struggle to manage personal responsibilities. Conversely, 37.8% disagreed (4.5% strongly disagree, 33.3% disagree), and 30.3% remained neutral. The results show a high level of neutrality with a near equal split between agreement and disagreement regarding the challenges certain students face in achieving work-life balance.

The final result in Statement 11 showed a relatively balanced distribution of agreement and disagreement, with exactly 50.0% (37.9% agree, 12.1% strongly agree) agreeing that blended learning increases student workload associated with managing both online and in-person components. While 22.7% (3.0% strongly disagree, 19.7% disagree) disagreed, and 27.3% remained neutral. These findings suggest that half of the students experience additional stress and complexity when balancing their academic responsibilities across different learning modalities. Overall, the data in this section shows that postgraduate students face several challenges in blended learning, including internet connectivity issues, limited access to technology, and difficulties in organizing digital resources. Experiences related to social interaction and feelings of isolation are more varied.

4.2 Analysis of the Qualitative Data

Qualitative data were obtained from two primary sources: open-ended questionnaire responses and semi-structured interviews with postgraduate students. This analysis complements the quantitative results by offering deeper insights into students' experiences with blended learning.

4.2.1 Open-Ended Questions

This section includes three optional open-ended questions that allow respondents to express their thoughts, experiences, and opinions in their own words. This complements the quantitative findings and fosters a deeper understanding of their perspectives. The following is the analysis of three open-ended questions.

Question One: According to your experiences with using BL in your academic study, do you have any additional comments to add?

Most students reported that their instructors did not formally implement blended learning, with traditional teaching methods remaining the most influential factor in their postgraduate studies. Student A illustrates that his experience with blended learning was personalized and that most instructors did not integrate blended learning as a formal educational method. In a similar vein, both students (B) and (C) mentioned that the limited application of blended learning exists while acknowledging the value of traditional education. As student (B) stated, *"blended learning was not widely implemented by my professors"*. Students (D) and (E) emphasized the importance of normalizing blended learning in education to keep pace with a generation that grew up with technology. However, student G expressed strong support for the integration of blended learning as an effective method, dependent on the quality of online resources and active instructor engagement. Another student who shared their experiences was student (I), who said, *"In my experience, blended learning helps me to manage my study time and collaborate with others"*. Thus, these responses demonstrate the need to adopt blended learning more formally and systematically, although traditional methods remain the most common approach.

Question 2: Are there any other benefits of blended learning you would like to mention?

Most students highlighted several positive aspects of blended learning, emphasizing its flexibility, accessibility, and impact on personal and academic growth. Many students emphasized the flexibility and accessibility of blended learning, and the ability to access learning materials anytime and anywhere as noted by Student (A). Similarly, student (D) enthusiastically stated, *"Yes, it can be accessed at any place and time."* Student (G) described it as helpful for students at all levels. Several students pointed out academic and cognitive benefits associated with this style of learning. For example, Student (J) appreciated the ability to review recorded lectures, while Student (M) mentioned improved time management and better balance with other responsibilities. Furthermore, students highlighted enhanced interaction and learning experience. As Student (B) noted, it made communication more efficient and easier. At the same time, Student (C) emphasized that, *"Blended Learning encouraged more active participation and collaboration through online discussions and interactive activities."* Student (F) described it as a method that improves both learning processes and outcomes. Finally, many students highlighted the importance of creativity, with Student (I) stressing the importance of imagination in this learning mode.

Question 3: Have you faced any other challenges while using blended learning? If so, how do you deal with them?

Some students encountered difficulties in adapting to blended learning, including issues related to concentration, engagement, and technological barriers. Student (C) addressed struggling with concentration and time management, adopting the strategy of studying during quieter times. Student (D) stated, *"One challenge I faced with blended learning was staying motivated and disciplined when working online without direct supervision. To overcome this, I set a fixed study schedule, used to-do lists to track my progress, and tried to stay engaged by participating actively in online forums and group work"*. Additionally, technical issues were a major challenge, as noted by Student (G), who described how poor internet connectivity and sudden blackouts made it difficult to attend online classes and submit assignments on time. These responses demonstrate that, despite students' efforts to develop effective blended learning strategies, significant obstacles continue to hinder the quality and effectiveness of their experiences.

4.2.2 Analysis of the Semi-Structured Interviews Data

The researcher conducted eight semi-structured interviews with postgraduate students who had completed the questionnaire. These interviews aimed to explore their experiences with blended learning in Libyan higher education. This analysis sheds light on the practical reality of blended learning in their academic environment. Thus, the following sections present the major themes that emerged from the data analysis, providing direct quotes from the participants to support these themes. These are summarized in seven main themes were identified and analyzed as follows:

Theme 1: Experience with blended learning

The experiences with blended learning were the first theme. Although all students reported that they often use blended learning during their postgraduate studies, their experiences were limited to specific modules. Some students stated that blended learning was informal; its use depended on personal teaching styles. As S3 pointed out, "*Yes, but not fully. Most of my lecturers still use traditional methods*". Several students stated that the limited use of blended learning was due to external circumstances such as university closures, transportation difficulties, or power cuts. For instance, S5 said, "*I used it when I was in the first semester in my postgraduate program since 2022, exactly by using Google Classroom with some doctors"*, while S1 mentioned its use due to unforeseen circumstances within the university. Other students confirmed engagement with blended learning in a single or a limited number of modules. These experiences demonstrated that blended learning had contributed to improving positive and effective academic achievement. While students were generally convinced of its adoption and application, they did experience some technical difficulties.

Theme 2: Perceptions and Impressions

The second theme was perceptions and impressions; students expressed mixed views

of both advantages and disadvantages based on their personal and academic experiences with blended learning. Some students mentioned that it helped them manage their time better and allowed access to the materials at any time. As S8 shared, "*It helped me learn at my own pace and stay on track*," while S3 emphasized how studying online from home provided more flexibility, especially when absent from class, enabling them to balance academic commitments with family responsibilities. Similarly, S2 described

their experience as beneficial, stating that the ability to access recorded lectures at any time enabled them to manage their studies more effectively. S5 highlighted its importance for students facing geographical and scheduling challenges, stating, "*It was helpful because I lived so far from university and was too busy to attend*".

Despite these advantages, several students expressed negative views. Some found it boring, isolating, mentally fatiguing, and had technical issues. S1 remarked that, *"I am too exhausted to stay in front of my laptop for long sessions. So, I feel bored quickly"*. Some students missed the social aspects of education; S7 said, *"I really miss F2F interaction with peers and professors"*. S6 mentioned some technical challenges, such as slow internet and electricity blackouts. Others found the shift between online and face-to-face learning confusing due to inconsistent teaching methods and a lack of clear instructions. S7 explained, *"I find it confusing to manage both online and traditional classroom way*s".

Theme 3: Effectiveness

The third theme was the effectiveness of blended learning in enhancing students' academic performance, exposing both the positive and negative aspects. On the one hand, it is positive that blended learning improved academic results through flexible study schedules, access to recorded lectures, and independent learning. However, several students mentioned that its effectiveness depended on subject type, instructor competence, and technical accessibility. As S2 remarked, students appreciated the ability to revise the recorded lectures at any time and access many learning resources. According to S4, the experience was described as "perfect" and expressed interest in using it in future teaching. Furthermore, students emphasized how studying from home allowed them to balance family responsibilities. Student 6 and Student 3 both acknowledged that online components allowed them to access content when physical attendance was not possible. According to S6, "… *I can't always get to campus …"*. Student 5 added, "*when I lose my attention and concentration, I can go back to revise the recorded lectures at any time I want."*

On the other hand, it is negative; some students found it hard to stay motivated when there was no real connection with teachers or peers. Both S1 and S8 reported feeling bored and isolated due to insufficient feedback and the absence of immediate interaction in the learning process. As Student 1 stated, *"I feel bored very quickly, so*

maybe I will not pay attention as if I am at lectures". S8 also emphasized the difficulty of organizing and motivating when adapting to a new type of learning. Most students were unable to attend the live classes. S5 mentioned that the electricity supply has been disrupted by ongoing 24-hour blackouts since 2022. Moreover, S7 emphasized the need for enhanced training programs for both students and instructors to use digital learning tools effectively.

Theme 4: Challenges

Theme four focused on the challenges that postgraduate students faced in engaging with blended learning. Students identified several challenges; the most important challenge and difficulty for all students was the lack of internet connectivity and electricity blackouts. For example, S5 illustrated the magnitude of the difficulty of electricity outages. Similarly, Student 1 reported, "*Internet connection is so slow. ... I have suffered a lot*", while Student 2 mentioned that poor internet connection during live sessions sometimes causes them to miss some parts of the lecture. Additionally, several students described personal difficulties relating to isolation, lack of motivation, and distractions at home, which reduced engagement during online sessions. S7 remarked, "*It's hard to stay focused ... I often felt isolated*". Environmental distractions also hindered learning; S5 mentioned that a noisy home environment made it difficult to focus, so they could only study effectively late at night. Furthermore, Students mentioned the lack of timely instructor feedback, as noted by S7, "*I sometimes struggle to stay focused or motivated... there's no feedback from instructors*". Students also emphasized that the increased pressure from academic demands and personal obligations made the overall workload more difficult. For example, S3 stated, *"it was hard for me to attend in person due to my family responsibilities*", and S8 pointed out that studying across different platforms made it difficult to keep track of deadlines and activities.

Theme 5: Course suitability

A key theme was the suitability of blended learning across different types of courses. Most students found it more effective for theoretical courses, which allow students to review recorded lectures and written resources at their own time. For instance, Student 1 noted that blended learning was effective in theoretical subjects because it facilitated sharing ideas through platforms like Google Meet. While S2 stated that, *"Blended*

learning works well for theoretical courses where I could study at my own pace and review recorded lectures". As S5 also observed, the approach worked best for subjects involving limited interaction or practical application.

On the other hand, several students found it less effective for practical courses. According to S2, "*It's hard to learn phonetics online because we need to hear how the teacher pronounces sounds and get immediate correction*". S5 and S8 stressed that courses involving active practice, such as microteaching and oral interaction, were difficult to apply online. As S8 pointed out, "*the most helpful courses, especially the ones that need actual practice, assignments, practice exercises, and recorded lectures*". Additionally, some students emphasized that the effect of applying blended learning depended on the teacher's approach. As S6 stated, "*it really depends on the doctor teaching it. Some uploaded all the lectures online with clear instructions. Others only posted slides without explanation*".

Theme 6: Institutional Support

All students surveyed expressed the need for formal training or workshops to develop digital and academic skills. Students 1 and 8 noted the absence of official training courses or support from the university or department. For example, S1 stated, "*There was no training course or anything like that from our university about blended learning".* Student 3 also mentioned the lack of training for both students and lecturers. In the absence of institutional guidance, students figure out how to use the platforms on their own. For instance, S5 remarked, "*We learn blended learning by ourselves... the department never mentioned it formally*", while S6 reported that formal training was not provided and had to figure out how to use the platforms on their own. The lack of external support and the absence of official learning resources led to uninformed experiences that depend on teacher's abilities and students' independence. This made it difficult to apply blended learning effectively.

Theme 7: Recommendations for improvements

The majority of the students offered several recommendations to improve the implementation of blended learning, with a strong consensus on the urgent need for formal training programs. Many emphasized that successful implementation depends on a well-structured course design to apply it effectively. S7 remarked, *"I really recommend that all faculty members to adopt blended learning more officially*". Both

S6 and S4 expressed hope that all lecturers start using blended learning more seriously and consistently.

Moreover, S3 emphasized that limited familiarity with digital platforms and applications hinders instructors' ability to deliver effective instruction. Additionally, several students emphasized the need for flexibility, better organization and planning, and ensuring that all students are equally supported. For instance, S1 commented, "*Make sure it should be online, not recorded… ensure strong internet in all regions*". S8 recommended that instructors consider students' personal circumstances, including deadlines, assignment loads, and attendance at live sessions. Other students acknowledged the challenges of blended learning but still necessary in contemporary higher education, S5 stated, *"We need it although it has negative points"*. This indicates the importance of institutions ensuring the effective implementation of blended learning to meet the diverse needs of learners.

Based on students' responses, their experiences with blended learning were limited despite its widespread use. Although they recognized its benefits, implementation was still informal and inconsistent, often relying on the personal style of teachers rather than a formalized curriculum. Students face significant personal and technical challenges. These results indicate that the success of the blended learning experience still depends on the individual efforts of students and teachers, rather than a standardized institutional system. However, blended learning has contributed positively to their academic outcome, which reflects its value despite practical and technological constraints.

4.3 Summary of the Major Findings

The purpose of this study was to explore students' experiences and perceptions of blended learning (BL) in Libyan higher education, utilizing both the quantitative data from the questionnaire and qualitative data from interviews. The finding showed positive experiences with blended learning (BL), particularly when it was implemented effectively. Thus, students expressed the need of additional institutional support.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

5.0 Introduction

This chapter discusses the main findings of this study in relation to the research aims, questions and the existing literature. It also states the recommendations that help in overcoming the difficulties encountered by Libyan EFL postgraduate students at the University of Zawia when implementing blended learning. Furthermore, this chapter includes the limitations, suggestions for further research and concludes with a summary of the key contributions.

5.1 Discussion

The current study aimed to investigate Libyan EFL postgraduate students' perceptions of blended learning to enhance academic performance. This section presents the students' experiences, perceived benefits, and challenges they encountered when implementing blended learning. This chapter presents the findings of the current research and how they relate to existing literature as well as the research questions. The research questions are:

1. What are Libyan EFL postgraduate students' perceptions towards the use of blended learning?
2. What challenges do Libyan EFL postgraduate students face when using blended learning?

This section discusses the key findings from the current study within the context of relevant literature and research questions. The results showed that students have positive and negative perceptions, challenges faced by students, and the relationship between blended learning and the academic performance of postgraduate students at the University of Zawia.

5.1.1 Students' Experiences with Using Blended Learning

The findings indicate a positive perception and experience with blended learning among postgraduate students to enhance academic performance. Despite its potential benefits, however, it was not officially or consistently adopted by all teachers. The findings from both quantitative and qualitative analyses showed that the majority of students (57.4%) agreed that blended learning modalities were not officially adopted even when in the face of institutional and resource constraints. This result is likely related to the findings of Ja'ashan, (2015); Anthony et al., (2022); Aravind, (2024); Almekhlafi, Almeqdadi and Alsadi, (2025), which indicate that students adapt to blended learning models even when institutional implementation is inconsistent. Similarly, BL has not yet been fully integrated into Libyan postgraduate programs, with many instructors continuing to use traditional methods. This leads to limited partial implementation that hinders a structured pedagogical approach .This aligns with Munir et al. (2024), who claimed that limited implementation of blended learning for students increases frustration, anxiety, and uncomfortable feeling when using this technology, leading to negative perceptions of the BL experience. Based on the responses from the interview participants, one student said, "*We need to normalize using blended learning in our universities since we are dealing with the technology generation*". This reflects the gap between institutional policy and actual classroom practice**.**

According to the survey findings, nearly all participants (85%) believed that blended learning enhanced their academic performance, was convenient, and improved engagement. These findings are consistent with previous studies carried out by Ju & Mei (2018) and Tran & Nguyen (2023)**,** who also stated that the role of blended learning enhances academic performance and supports language learning outcomes in English as a Foreign Language (EFL) context. Similar to this, BL motivates students and offers opportunities that cater to their needs. These results are in harmony with several previous studies such as Rahim, (2019); Banditvilai, (2016); Rayyan et al. (2024); and Oweis,(2018).

Another finding is that using blended learning increases students' interaction and access to resources. These results align with studies conducted by Bajaj (2020) and Rusly et al. (2020) who confirmed that the use of blended learning has positive impact on

students' academic achievement to facilitate communication and access learning materials anytime and anywhere. This leads to increased engagement, participation, and understanding of the course material.

Furthermore, the qualitative findings also strongly corroborate positive perceptions. Many students found it beneficial for managing their schedules and balancing their studies with their personal lives. This supports the research conducted by Simbolon (2021), who identified flexibility and accessibility as key advantages of blended learning, which allow students to accommodate various learning styles, diverse schedules, and personal responsibilities. As one student noted, "*Blended learning helps me manage my time and study remotely*." Another student stated, "*I could go back and revise the recorded lectures at any time I want."* These factors contribute to the beneficial impact of blended learning on student motivation by improving engagement through interactive online activities, multimedia, and collaboration, leading to increased participation and ownership of learning.

5.1.2 Benefits of Blended Learning

Building on the generally positive experiences reported, this study identified several specific benefits of blended learning for Libyan EFL postgraduate students at the University of Zawia. The results of both questionnaire and interviews in this study showed that most students use blended learning to overcome disruptions. The majority of students agreed that blended learning ensures the continuity of education during crises. According to Nguyen (2024), blended learning facilitates academic progress during emergencies, particularly in EFL higher education. This aligns with flexibility and accessibility inherent in blended learning when adapting to unexpected circumstances.

Another finding was that blended learning offered students greater flexibility, a benefit which was widely acknowledged in this study. The majority agreed that it allowed them to study at their own pace and according to their own schedule. This aligns with the study made by Heilporn et al. (2021) who emphasized that BL helps students to manage their time, learn at their own pace and choose their preferred learning style. The findings of this study are also consistent with those of a study conducted by

Amiruddin et al. (2022), who concluded that students prefer to utilize blended learning but that some challenges prevent them from doing so.

Additionally, some students were encouraged to engage with online material, which provided opportunities to meet their individual needs. Valcheva et al. (2022) stated that blended learning facilitates personalized learning paths, which are particularly beneficial in an EFL context, where students often have diverse proficiency levels and learning needs. Similarly, Yu and Du (2019) indicated that capacity BL fosters engagement through its ability to deliver individualized learning. Besides, (Rianto, 2020) has concluded similar outcomes to this study's findings that it leads to a more personalized experience and accommodates diverse schedules. These findings are in line with the existing literature on the benefits of blended learning.

However, the responses indicated that most students recognize the importance of digital tools in engaging more actively in the learning process and improving their academic performance. Similarily, the results demonstrated that blended learning fosters confidence in students' ability to utilize educational technology effectively (Simbolon, 2021). Amiruddin et al. (2022) found that blended learning environments facilitate the development of digital competence, which is growing essential in contemporary education. Furthermore, the majority of students believe that using blended learning can improve learning outcome and academic performance.

According to Rusly et al. (2020), blended learning (BL) increases opportunities for interaction among students, teachers, and peers, leading to facilitate collaboration more effectively. It was discovered that increased students' motivation and communication influence the effective use of blended learning and their academic performance. This aligns with findings from Bajaj (2020) who highlighted that motivation plays a central role in the learning process by driving students to actively engage in educational tasks. Interestingly, most students preferred blended learning and expressed that it is more enjoyable and accessible to study online.

However, it is important to note that not all benefits of blended learning were utilized, but its implementation often lacked consistency and instructor feedback which was not uniformly given among students besides other learning factors. This supports findings of a study made by Sylvia et al. (2024) that found immediate feedback is one of the

most powerful influences on learning achievement in blended learning environments. It can be concluded that the role of teachers' responses and active engagement does not depend on the availability of technology to achieve success. Moreover, these results emphasize the significance of blended learning in meeting the needs and improving academic outcomes. Furthermore, these findings strongly support the implementation of blended learning in all postgraduate courses.

5.1.3 Challenges of Implementing Blended Learning

Despite the positive attitudes and benefits, students encountered several challenges when implementing blended learning. The most common issues were unreliable internet access, power outages, unprepared instructors, and a lack of institutional support. These obstacles are widely recognized, particularly within developing country contexts. (Cao, 2023; Munir et al., 2024).

One of the most significant obstacles was technical; many students struggled with internet connectivity. These results align with several previous studies such as Henderson et al. (2017); Lubkov et al. (2020); Cao (2023) and Munir et al. (2024). Similarly, Aravind (2024) emphasizes that without reliable technology, students may feel frustrated, decrease their engagement and academic performance. According to the findings of the interview in the current study, electricity blackouts and slow internet are significant barriers to engaging with blended learning.

Some students reported that they could not attend online lectures due to difficulties in utilizing digital tools effectively. The study concluded that many participants found it challenging to organize digital resources and stay motivated during online courses, which negatively affected their academic performance. These findings align with Nikolopoulou (2023), who found that inadequacy of blended course design often leads to student confusion and reduced participation among students.

Albiladi and Alshareef (2019) stated that the successful implementation of blended learning depends on formal training and institutional support. This leads to conclude that the lack of development for instructors and students leads to inconsistent implementation, limited digital proficiency, and poor engagement. Based on the responses from the interview participants, all students demonstrated a lack of formal

training or workshops provided by universities. As noted by Abdulkader (2024) and Aravind (2024), technology competence and adequate training for students and teachers are important to ensure the effective implementation of learning outcomes. They also suggested that they should participate in training and workshops to support learning with technology.

Furthermore, both the questionnaire and interview data indicated that some students felt isolated when using blended learning, which can negatively affect their motivation and engagement. These findings align with previous research conducted by Tran and Nguyen (2023) which emphasized that students need presence and interaction with peers; without these, they may experience increased anxiety, feel isolated and disengaged from their studies. One student shared, "There's no feedback from instructors… I feel isolated and bored." Another participant noted, "I am very exhausted to stay in front of my laptop for long sessions. So, I feel bored quickly." Additionally, some students found it difficult to manage their time with personal responsibilities, which can demotivate them and negatively influence engagement.

Both the questionnaire and the interview revealed that a few students mentioned that not all subjects are suitable for blended learning. This conclusion is supported by Soubra et al. (2022), who found similar limitations in learning practical components such as pronunciation using online tools. As one student put it, "In phonetics, we need to hear how the instructor pronounces sounds and receive immediate correction. Online, it's hard to do that."

The findings of this study show that the implementation of blended learning, as a supplementary educational tool, yielded the following positive outcomes:

- The ease of access to the material through blended learning.
- The flexibility to manage time and balance with personal responsibilities.
- The convenience of communication and organization.
- Ensuring continuity of education during periods of crisis and logistical challenges
- The development of essential 21st-century skills
- Satisfaction with assignment distribution and completion.
- The reduction in academic stress.

5.2 Conclusion

This dissertation discussed the results of the quantitative and qualitative data. It explored the challenges faced by EFL postgraduate students at the English Department of the University of Zawia when implementing blended learning. The data was collected by using an online questionnaire and semi-structured interviews.

The findings from a questionnaire with both closed and open-ended responses showed that postgraduate students generally hold positive attitudes towards blended learning, and found it helpful and useful for enhancing their academic performance. Additionally, the result also fosters online tools in the 21st century, as well as its significant promise for supporting to ensure educational continuity during a crisis. Furthermore, the results from the analysis of the semi-structured interviews indicated that a majority of students held positive attitudes towards blended learning. However, there are also some challenges regarding technological issues, students' training issues, etc.

The study also revealed a strong positive relationship between blended learning and academic performance. The findings indicate the benefits of flexibility, access to resources, and recorded materials. However, some challenges restrict the application of blended learning, including unreliable internet and a lack of formal training. Additionally, the effect of blended learning depends on a deeper understanding of course content that considers specific pedagogical requirements.

In sum, this study contributes valuable insights into how blended learning can be an effective educational approach for Libyan EFL postgraduate students. However, some issues need to be addressed to ensure that the advantages of blended learning are an equitable and effective for all postgraduate students for academic and professional success. These findings provide a deeper understanding of the experiences and benefits of blended learning associated with the existing literature.

5.3 Recommendations of the Study

Based on the findings of this study, several recommendations emerge that could contribute to fostering academic performance and developing blended learning (BL) in postgraduate studies in Libyan higher education. The following recommendations should be taken into account:

1. Adapt formal learning: Supporting universities must shift and integrate blended learning practices formally into their curriculum to ensure they become a structured part of academic programs. This includes developing all strategies and requirements of blended learning within the curriculum.
2. Facilitate training and support**:** Teachers and students should be provided with training in programs or workshops on how to use blended learning platforms and digital tools effectively. Provide ongoing support and professional development opportunities to help them feel confident using the online platform.
3. Focus on developing 21st-century skills: Provide assignments and activities that help students practice using online tools and collaborative platforms in blended courses to prepare them for the globalized world.
4. Utilize technical online education: Encourage students to use robust educational platforms that support academic communication. Higher education institutions should utilize standardized methods for implementing blended learning to ensure a more structured and successful experience.
5. Improve access to online learning resources: Ensure that all online learning materials (e.g., PDF handouts, recorded lectures, interactive quizzes, educational videos, and PowerPoint slides) are easily accessible. Prepare an alternative power system to ensure all students have equal access to online educational materials.
6. Foster student-centered learning**:** Encourage students to become autonomous learners by allowing them to take ownership of their studies while balancing the personal circumstances of postgraduate students.
7. Support community and interaction**:** Encourage students to engage in collaborative activities. Teachers should also be present and provide regular feedback, motivate students and reduce isolation.
8. Design blended courses: Offer design BL courses that include manageable study periods and deadlines, especially during crises, to ensure that all students can participate equitably and effectively.
9. Psychological and social support: Establish channels for students to share academic or personal challenges. Provide guidance to foster a stronger sense of community.

10. Evaluate blended learning: Assess the current state of technological infrastructure and students' proficiency in using technology through continuous feedback. This process will also support continuous improvements in the blended learning program. It will help identify any potential challenges.

By implementing these recommendations, researchers and learners involved in blended learning can collaborate to enhance educational outcomes. Educational institutions can create a supportive environment and enhance the quality, accessibility, and effectiveness of blended learning through professional development with technology. Students can foster a positive and engaging learning experience by using diverse learning methods and receiving feedback. Finally, students can actively participate in their learning journey by developing strong study habits. This approach enables postgraduate students to overcome the challenges they face and prepare for the globalized world, and achieve their academic goals.

5.4 Limitations of the Study

This study has some limitations:

a) It was limited to postgraduate students in English departments at the University of Zawia only.
b) The sample size was also limited; the total number of students was sixty-eight for quantitative data and eight students for qualitative data. This may not represent the perceptions of all postgraduate students in Libya.
c) The study focused solely on technology-based blended learning.
d) Collecting qualitative data was time-consuming for the researcher due to the need to coordinate with participants' schedules.
e) It focused on self-reported questionnaires and interview data.
f) The study indicated that blended learning was not officially implemented across institutions and by most instructors.

5.5 Suggestions for Further Research

The following are suggestions for further investigation:

1. Researchers could explore EFL students' perceptions and attitudes towards using blended learning across different educational levels (e.g., primary, secondary, and undergraduate education).

2. More focused research could be conducted on the specific challenges and obstacles that postgraduate students face when using blended learning.
3. Further studies could examine the impact of blended learning on the academic achievement of postgraduate students to inform more responsive and adaptable pedagogical approaches.
4. More research could be undertaken on how certain blended learning strategies or technologies contribute to the development of learning in different linguistic skills.
5. More investigation is needed to replicate this study across various regions and universities within Libya to validate and generalize the current findings.
6. Future studies about whether students who have implemented and used blended learning in all study courses revert back to a traditional classroom.
7. A potential direction for future research is to investigate how different factors like digital quality, training levels, motivation, course content suitability and the balance between online and face-to-face learning affect student performance in higher education.

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Appendices

Appendix A: Postgraduate Students' Questionnaire

Dear participant,

This questionnaire aims to explore Libyan EFL postgraduate students' perceptions towards blended learning in enhancing their academic performance**.** Your honest responses will help in understanding the benefits of blended learning in the postgraduate academic setting.

Hence, kindly take a few minutes to answer the following survey to assist in enriching the study where all responses will be kept confidential and used only for research purposes.

Your participation is vital and appreciated.

Thank you in advance for your participation.

The Researcher

Please Note the following:

1. BL= Blended Learning **(It combines traditional face-to-face instruction with online learning activities).**

2. In this survey, the **Likert scale** is used**, therefore, please indicate your level of agreement or disagreement** as follows**:**

1= Strongly Disagree 2= Disagree 3=Neutral 4= Agree 5= Strongly Agree

Section One: Personal Information

1. **Age :**
   - 20-25
   - 26-30
   - 31-35
   - 36 and above
2. **Gender:**
   - Male

- Female

3. **Nationality: _____**
4. **Current stage in the postgraduate program**

    - Preliminary stage
    - Thesis stage
    - Other (please specify): _____

5. **Years of experience with blended learning:**

    - Less than 1 year
    - 1-2 years
    - 3-4 years
    - More than 4 years

Section Two: Experiences with Blended Learning

No	Item	Response				
		1	2	3	4	5
1	Blended learning is officially adopted in my postgraduate program and effectively meets my academic needs.					
2	Blended learning is an effective approach to enhance postgraduate students' academic performance.					
3	Blended learning is more convenient than traditional learning.					
4	Blended learning makes the learning experience more interactive and engaging.					
5	Blended learning facilitates powerful communication and meaningful interaction with lecturers and peers both inside and outside the classroom.					
6	I enjoy using blended learning for its easy access to a variety of online resources that improve understanding of academic materials.					
7	I feel more confident while using blended learning / technology for academic purposes.					
8	Instructors provide adequate support and training for successful participation in blended learning.					
9	I find it easier to retain information when using blended learning.					

10	I am enthusiastic about using blended learning to enhance my future learning.					
11	Blended learning helps students become more independent, self-motivated and better at time management.					
12	BL assists postgraduate students acquire essential academic skills and apply them in real-world contexts.					

Open-Ended Question:

13. According to your experiences with using BL, do you have any additional comments that you have not mentioned? (Optional)

Section Three: Benefits of Blended Learning.

No	Item	Response				
		1	2	3	4	5
1	Blended learning reduces the financial costs associated with traditional education.					
2	Blended learning ensures the continuity of education during crises and allows students to easily catch up on missed classes.					
3	The flexibility of blended learning allows me to learn at my own pace and schedule.					
4	Blended learning provides personalized learning experiences that meet each student's requirements and abilities.					
5	Blended learning helps students to become more independent and reduces their workload in class.					
6	Blended learning improves my digital and technological skills.					
7	Instructors provide immediate feedback in blended learning that helps students to improve their academic performance.					
8	BL prepares students for a globalized world by developing 21st-century skills.					
9	Blended learning reduces academic stress and promotes psychological comfort.					
10	Blended learning makes online learning more enjoyable for students.					
11	Blended learning enables students to choose their preferred learning style and review materials anytime.					

Open-close question;

12. Are there any other benefits of blended learning you would like to mention? (Optional)

Section Four: Challenges of Blended Learning

No	Item	Response				
		1	2	3	4	5
1	Students struggle with the high initial costs of technology required for blended learning.					
2	Internet connectivity issues sometimes disrupt my online learning.					
3	I sometimes encounter difficulty organizing and using digital resources in blended learning.					
4	I have trouble using all the online tools and programs effectively in blended learning.					
5	Blended learning restricts opportunities for face-to-face interaction with teachers.					
6	Blended learning may contribute to feelings of isolation and disconnection.					
7	I find it difficult to stay attentive during online learning sessions.					
8	I find it difficult to participate in online discussions and collaborative activities.					
9	Limited access to technology hinders my academic performance and reduces students' ability to succeed in blended learning.					
10	Blended learning may make it difficult to balance personal responsibilities.					
11	Blended learning increases student workload associated with managing both online and in-person components.					

Open-close question;

12. Have you faced any other challenges while using blended learning? If so, how do you deal with them? (Optional)

_____

Thank you for your participation

Appendix B: Postgraduate Students' Interview

1. Have you experienced adopting blended learning in your postgraduate studies?
2. What is your impression about using blended learning approaches in your postgraduate program?
3. To what extent have you found blended learning an effective tool for enhancing your academic performance?
4. What are the factors that might hinder you from using blended learning effectively in your postgraduate program?
5. Throughout your blended learning experiences, can you mention some positive and negative examples of how blended learning affected your postgraduate study journey and your academic performance?
6. Could you please tell me in which courses blended learning was/wasn't effective and helpful?
7. Does your university or department provide any training program(s) or workshops about using blended learning as a tool to enhance postgraduate studies?
8. Are there any comments that you would like to share about your positive or negative experiences in using blended learning in Libyan higher education?

Thank you for your time and participation.

The Researcher

Appendix C: Classification of Qualitative Data

Code	Major themes	Sub-theme	Description	Example/Quote from Interview
1	Experience with blended learning	Adoption	Most students' experience with blended learning was limited to only a few modules due to specific circumstances (e.g., COVID-19), and not all professors adopted it officially.	*"Yes, I have.", "Yes, but not fully. Most of my lecturers still use traditional methods", "yes, in the first semester in my postgraduate program since 2022, exactly by using Google Classroom with some doctors."*
		Contextual Necessity	Students applied blended learning out of necessity, during emergencies (e.g., due to closures or crises).	"Yes, during second semester because there were some issues at our university".
2	Perceptions & Impressions	Flexibility and Convenience	Blended learning helps students to study from home and manage time.	*"It was very beneficial … I can watch the lectures whenever I want." "It helped me learn at my own pace.", "It helps me manage my time and study at night after putting my kids to sleep.", "Studying online from home gives me more flexibility, especially when I miss lectures … and suits my family responsibilities."*
		Accessibility	Blended learning is helpful as there is no need to attend.	*"It helped me because I live so far from university and too busy to attend."*
		Preference Face-to-Face	Some students prefer face-to-face interaction, while others prefer online for flexibility	*"I prefer traditional classes because I miss face-to-face interaction with peers and professors." "Studying online suits my family responsibilities."*
		Boredom/ engagement	It is hard to stay focused during long sessions	*"I am very exhausted from staying in front of my laptop for long periods. So, I feel bored quickly."*
3	Effectiveness	Positive Examples	How blended learning improved their academic performance due to flexibility, access to recorded lectures,	*"I got an A in language testing… it was a perfect experience." "I could go back and revise the recorded lectures at any time I want."*

			and Independent study.	
		Negative Examples	Some participants faced difficulties during online learning due to poor engagement, interaction, technical problems, and a lack of motivation.	"It was stressful trying to follow everything… not all content was available online." *"I feel bored very quickly, so maybe I will not pay attention as if I am at lectures." "There's no feedback from instructors… I feel isolated and bored."*
4	Challenges	Technical Issues	Poor internet connectivity and power cuts hindered learning.	*"The most challenging was the blackout ... electricity was still cut for 24 hours at that time." "Internet connection is so slow. … I have suffered." "Sometimes during live sessions, the internet connection goes in a bad way... I miss some parts of the lectures."*
		Personal Challenges	Lack of motivation, isolation, and distractions at home affected focus.	*"I am a person who feels bored very quickly...." "It's hard to stay focused ... I often feel isolated." "… I faced … the noisy environment at home... I could only focus late at night." "I sometimes struggle to stay focused or motivated... there's no feedback from instructors."*
5	Course Suitability	Theoretical vs. practical courses	Blended learning worked well for theoretical courses, while practical courses were less effective.	*In phonetics, we need to hear how the instructor pronounces sounds and receive immediate corrections. Online, it's hard to do that." "So it was effective in second language acquisition, but it was not effective in syntax and semantics", "I think blended learning works better with theory-based subjects. When you have to apply something practically, especially in teaching methods, it is not the same."*
		Instructor Influence	The effectiveness of the course depended on the teacher's approach.	*"It really depends on the doctor teaching it. Some uploaded all the lectures online with clear instructions. Others only posted slides*

				without any explanation." *"There was no feedback from instructors."*
6	Institutional Support	Lack of training and workshops	Neither students nor teachers received formal training on using blended learning tools effectively.	"We had to learn blended learning by ourselves." "There was no formal training or workshop." "Our university did not provide any formal training or support."
7	Recommendations for Improvements	Structured design	Student suggested a well-organized and designed structure in blended learning courses and ensure that all students are equally supported.	*"Some professors expect active participation without considering students' limitations. If a student cannot attend a live lecture, how can they meaningfully engage?"*
		Need for training	Students recommended formal training and workshops for both teachers and students.	*They do not know how to use the applications. They lack the training."* *"I really recommend that all faculty members to adopt blended learning more officially. If everyone used it well, it would improve postgraduate study in Libya."*