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عنوان

المذكرة: Students' and Teachers' Perspectives of Moodle's Pedagogical Effectiveness: Case Study of Department of English at Bouira University

التخصص: Didactics and Applied Languages

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Faculty of Letters and Foreign Languages

Department of English Language and Literature

Students' and Teachers' Perspectives of Moodle's Pedagogical Effectiveness:

Case Study of Department of English at Bouira University

A Thesis Submitted to the Department of English Language and Literature - University of Bouira–in Partial Fulfillment for the Requirement of Master's Degree in

Didactics and Applied Languages

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Academic Year

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Dedication

Each start has a conclusion and each sacrifice holds the potential for victory. We once said: "we are ready for the challenge," and now we stand as a proof that beliefs, persistence, and determination can transform the impossible into reality. We are up to it even when it pushed back, we prevailed.

After a journey of years filled with the struggle, moments of doubts and tested the harshness of failure before the sweetness of success. Here we are today, standing on the doorway of our graduation, reaping the fruits of our labor and proudly raising our cups in recognition of our accomplishments.

With a delicate heart filled with enormous love and appreciation, we dedicate this work:

To those who taught us that the world is a challenge and its weapons are science and knowledge. To those who exerted years of effort to climb the steps of success, and to those whose name we are proud of and cherish, our beloved fathers ***Kamal & Mohammed****.*

To the two tender hearts, our dear mothers ***Nadia & Tassadit****. You were the first supporters in pursuing our ambitions. To the two whose prayers never cease to surround us: we dedicate this graduation to you, for its success belongs to you after Allah's grace.*

To our treasured grandmothers, ***Zineb & Hadda****, you are the beacon that illuminated our journey and the hope that warmed our souls.*

To our cherished siblings: ***Salma****,* ***Nadjet****,* ***Nabila, Aya****,* ***Imane****,* ***Samia****,* ***Sihem****,* ***Imane****, and* ***Imad****, partners in childhood adventures and the vaults of our enduring memories. Your love has always the symphony of our lives.*

To our dear friends ***Lynda & Dounia****, the ones who shared our secrets and joyful laughter, our partners in everyday challenges and triumph.*

To everyone who stood by us along the way, this success is as much yours as it is ours.

Mouna SALMI & Cylia BOUMEKOUEZ.

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Sincere thanks are extended to all the teachers and students who were involved in this study as a part of the sampled participants.

Abstract

This study explores the attitudes of teachers and learners toward Moodle usage in the English department at Bouira University. It examines Moodle's role in facilitating communication, accessibility, and pedagogical effectiveness. A mixed-methods case study was conducted, incorporating quantitative data from student questionnaires and qualitative insights from semi-structured teacher interviews. The findings revealed that while Moodle is widely used for content sharing, its interactive features, such as forums, quizzes, and real-time feedback are underused. Students primarily access materials rather than engage in interactive activities, while teachers use Moodle as a supplementary tool rather than a central pedagogical platform, citing technical constraints, lack of training, and limited student engagement as barriers. Both groups expressed the need for better infrastructure, institutional support, and enhanced training to improve Moodle's effectiveness. These results contribute to ongoing discussions on e-learning adoption in Algerian higher education, offering practical suggestions to enhance digital learning platforms and align technological capabilities with educational objectives.

Keywords: Moodle, e-learning, teachers' attitudes, students' engagement, higher education.

الملخص

تهدف هذه الدراسة إلى استقصاء مواقف كل من الأساتذة والطلبة تجاه استخدام منصة "موودل" في قسم اللغة الإنجليزية بجامعة البويرة، كما تسعى لتحديد مدى مساهمتها في دعم التعليم والتعلم، خصوصًا من ناحية التواصل، سهولة الوصول، والأثر البيداغوجي. اعتمدت هذه الدراسة منهجًا مختلطًا، جمع بين استبيانات موجهة للطلبة ومقابلات مع الأساتذة. تبين النتائج انه على الرغم من استخدام موودل على نطاق واسع كأداة تكميلية لمشاركة المحتوى، الا ان امكانياته التفاعلية مثل المنتديات، الاختبارات، والتعليقات الفورية غير مستخدمة بشكل كاف. الطلبة يستخدمونه في الغالب للوصول إلى الدروس بدلا من المشاركة في الأنشطة التفاعلية، في حين يستخدمه الأساتذة كأداة إضافية لا كوسيلة تعليمية رئيسية، مشيرين الى جملة من صعوبات مثل المشكلات التقنية، ضعف التكوين، وقلة تفاعل الطلبة. وقد أجمع المشاركون على الحاجة إلى دعم تقني، تأطير إداري، وبرامج تكوينية موجهة لتعزيز فعالية استخدام "موودل. تُسهم هذه النتائج في إثراء النقاش المستمر حول إدماج التعليم الإلكتروني في الجامعات الجزائرية، من خلال تقديم مقترحات عملية لتحسين أداء المنصات الرقمية وتحقيق توافق أفضل بين الإمكانيات التقنية والأهداف التعليمية.

الكلمات المفتاحية: موودل، التعليم الالكتروني، مواقف الأساتذة، تفاعل الطلبة، التعليم العالي

List of Abbreviation

AI: Artificial intelligence.

ASTD: The American Society for Training and Development.

E-learning: Electronic learning.

ICT: Information and Communication Technologies.

IDT: The Innovation Diffusion Theory.

ILS: Integrated Learning Systems.

IT: Information Technologies.

LMS: Learning Management system.

Moodle: The Modular Object-Oriented Dynamic Learning Environment.

PDF : Portable Document Format.

Q : Question.

SRL: Self-Regulated Learning.

TAM: Technology Acceptance Model.

TV: Television.

UTAUT: The Unified Theory of Acceptance and Use of Technology.

VLE: Virtual Learning Environment.

VR: Virtual Reality.

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Chapter Two: Results and Discussion

General Introduction

Background of the Study

Since the past few years, the world is going through dramatic transformation across many domains of life that have affected the education field in particular as a result of rapid technological advances and the rapid availability of knowledge. Information and Communication technology (ICT) has revolutionized teaching and learning, especially in higher education by creating a variety of digital tools and flexible interactive technologies. These developments have been part of the transformation of the world into a 'small village,' where access to knowledge and communication has transcended geographical boundaries. E-learning, in particular, is at the core of this transformation, offering diverse platforms such as virtual classrooms, multimedia content, and self-paced learning environments. As cited in Culduz (2024, p. 2), Kuma, Wotto, and Belanger (2018), E-learning provides learners with the flexibility to access learning resources anytime and anywhere, making it an essential element of modern education. In general, E-learning refers to the delivery of educational content and activities over the internet using digital platforms to create opportunities for pedagogical interactions between students, instructors and educational content.

E-learning has progressed immensely since the days of correspondence courses in the 19th century to modern highly sophisticated Learning Management Systems (LMS). Early advances included radio, television, and computer-assisted instruction, which progressed further with the increased use of the internet and multimedia enhanced virtual learning environments (VLE). The introduction of World Wide Web enabled flexible, interactive learning experiences, culminating in LMS platforms that support personalized education, real-time collaboration, and data-driven assessments. These developments have transformed e-learning into a dynamic, accessible model suited for global learners (Munna, Hossain, & Saylo, 2024). In the last ten years, E-learning has transformed into an essential part of modern education system, especially in higher education, enhancing access and flexibility in learning. It provides interactive learner-centered educational environments to improve engagement and academic achievement. In addition, they foster a healthy climate for intrinsic motivation and promote interaction through realistic, problem-based learning (Mahieu &Wolming, 2013).

Among the available LMS options, Moodle as an acronym for Modular Object-Oriented Dynamic Learning Environment is known for its flexibility. It has earned a solid reputation for classroom management, content delivery, evaluating students, and facilitating interaction among all participants. Moodle which is an open- source, customizable platform

in the early 2000s with its initial official version released in 2002 by its founder Martin Dougiamas. This platform is extensively utilized in educational organizations worldwide to aid synchronous, asynchronous, blended learning. Its key features, including tracking student progress, submitting assignments, engaging in discussion forums, and using multimedia, make Moodle an effective platform for both content learning and language.

Considering the situations, the world has witnessed, particularly the impact of Covid-19 pandemic on relationships, alongside social distancing and quarantines, the need to combine traditional education with some form of distance learning has become essential to sustain the educational system and keep it running. This is what all nations, including Algeria have been quick to implement.

In response, Algeria implemented *Moodle* platform in higher education to enhance innovative digital learning experience. Regarding the institutional context, the history of the founding Akli Mohand Oulhadj University goes back to 2001, when it was a part of Boumerdes University. However, it became an independent institution in 2005.

This University stands as a key example of how *Moodle* is applied in Algeria. Since that time, the University began gradually integrating ICT to update the quality of education. In line with national efforts, *Moodle* was officially integrated as a part of national initiatives aimed at digitalizing education. Initially, it was employed to enhance both blended and online learning.

The English department was among the early adopters, which contributed to enhancing the digital learning experiences for both teachers and students. As a result of Covid-19 pandemic, the use of the platform significantly increased to maintain educational continuity, manage educational content, and improve teachers' and learners' interaction.

Statement of the Problem

While online learning tools like Moodle are deeply embedded in higher education, there are still many challenges related to the use of them. One significant issue is the technical infrastructure, as many institutions particularly in developing contexts such as Algeria may not have the necessary equipment, stable internet access and IT support to maintain efficient online learning. In addition, instructors and students need ongoing support from consistently coming back to the program regularly. Resistance to change is another barrier to using Moodle. Several students and faculty are not willing to change their teaching and learning process making it difficult to experience the benefits of Moodle. The advantages of using Moodle in learning will become even clearer as the platform continues to be used in universities like Bouira. As

a result, both the teachers' and learners' attitudes become important. These attitudes will have a considerable influence on how Moodle is utilized and enables its users to utilize it. Divergent perceptions between instructors and Students can result in a lack of user engagement and, therefore, a reduced use of the platform's features in order to make realized as promised. Moreover, expectations around the culture, institutional policy, and the digital readiness of the academic community can have a substantial impact on these attitudes. Thus, analyzing the challenges and attitudes associated with the use of Moodle is a key to improving the opportunities for its use and sustaining meaningful digital transformation in higher education.

Research Objectives

The primary aim of this study is to investigate and analyze the attitudes of teachers and learners towards the use of Moodle at Bouira University. To achieve this, the study sets out several objectives:

1. To assess the level of Moodle usage among teachers and students
2. To identify factors influencing positive and negative attitudes towards Moodle
3. To compare attitudes between teachers and learners
4. To examine the relationship between attitudes and actual Moodle usage
5. To explore cultural and institutional factors affecting Moodle adoption

Research Questions

The study aims to answer the following questions:

Main research question

What are the general attitudes of teachers and learners towards the use of Moodle at Bouira University?

Sub research questions

- What are the main challenges (technical, pedagogical, or institutional) that affect the use of Moodle among teachers and students?
- To what extent do Moodle's interactive features (e.g., quizzes, forums, real-time feedback) influence students' engagement and language development?
- How do cultural and institutional factors influence users 'perceptions and adoption of Moodle?

Hypotheses

In response to the research questions, the following hypotheses are formulated:

Main hypothesis

Both teachers and students have varied attitudes towards Moodle, shaped by technical limitations, lack of training, and underuse of its pedagogical features.

Sub hypothesis

- Technical issues and insufficient training negatively affect the effective use of Moodle by both teachers and students.
- Underutilization of Moodle interactive tools (such as forums, quizzes, real-time feedback) has a negative effect on students' engagements and development of language skills.
- The presence of institutional support and the cultural factors have a significant influence in the user's perceptions regarding the adoption of Moodle in education.

Significance of the Study

This study is valuable both for Bouira University and for the broader field of e-learning research. At the university level, it provides more clarity on teachers 'and students' attitudes, needs, and obstacles to using the Moodle platform. These insights are essential for guiding data- informed decisions regarding Moodle implementation, training for educators and students, and offering technical support.

The study will also identify how technological competency and resource availability shaped user attitudes towards Moodle, establishing a foundation for university administrators to develop strategies to increase Moodle use, better utilize its features, and provide better engaging technology-supported learning experience. At a broader level, the study will contribute to current e-learning research by providing relevant insights into how Moodle is used and perceived in higher education in Algeria. This study's findings will provide comparative data to international studies and help to develop better theoretical models for technology acceptance in education highlighting institutional, cultural, and technological aspects that support user behavior. By taking this approach, the research aims to support both local and global equity in technology integration in higher education.

Structure of the Dissertation

The introductory section provides a thorough overview of the research, starting with an insight into e-learning, the development of LMS systems, and the integration of Moodle platform at Bouira University. It sets out the research problem, objectives, questions, hypotheses, significance and scope. Then, literature review and methodology were merged in the first chapter in the sense that the former directly informs the research design and the

methodological approach used to treat the identified gap of our study. The first section of this chapter covers the literature review on the origins and evolution of e-learning, the key features and limitations of LMS, user attitudes, technology acceptance models (TAM, UTAUT, IDT) and also the cultural and contextual factors specific to the Algerian educational system. Moreover, it outlines the adequate research methodology dealing with the research method, population and sampling, the data-gathering tools, ethical considerations and analysis procedures. In the second chapter, mixed methods are showcased and analyzed, drawing comparison between the attitudes of teachers and learners. This chapter details the analysis, interpretation, and discussion of the gathered data, where the researcher confirms or dismisses the research hypotheses that have been set earlier. Finally, the study concludes with a summary, examines its limitations and presents recommendations for future research.

Chapter One:

Theoretical Framework

Introduction

This chapter outlines the theoretical framework that underpins the exploration of teachers' and students' opinions on the implementation of Moodle platform within the English department at Bouira university. It consists of two primary sections: section one: literature Review and section two: research Methodology. The first section offers an overview of existing research concerning e-learning, Learning Management systems (LMS), and user attitudes towards these tools, specifically highlighting Moodle in the context of higher education. The review covers key aspects such as the evolution of e-learning, the features of LMS platforms, and factors that impacting user acceptance, particularly in Algeria. Specific attention to the pedagogical effectiveness of Moodle, highlighting its willingness to boost personalized learning, foster collaborative opportunities, and deliver flexible instructional design.

The review also proposes meta-analysis perspectives that emphasize the wider institutional needs for effective integration. Additionally, it also addresses cultural and institutional barriers that influence the use of e-learning. Ultimately, the review uncovers gaps in the research on Moodle's effectiveness in facilitating interactive language learning in Algerian universities. A comprehensive explanation of the research methodology employed in this study is provided in the Section Two. With a case study of the English department at Bouira university as the centerpiece, it discusses the mixed-methods approach taken to investigate Moodle's pedagogical use. This section also describes the instruments for collecting data, sampling techniques, and analysis methods used to investigate teachers' and students' experiences using Moodle. It serves as a useful basis for answering the research questions. These two sections offer a thorough basis of grasping the theoretical and practical aspects that influence the adoption of Moodle in higher education.

Section One: Literature Review

1 E-Learning in Higher Education

1.1 Definition of E-Learning

E-learning, also known as electronic learning, is a type of education that utilizes modern communication and information technologies, such as computers, networks, audiovisual materials, search engines, electronic libraries, and websites, to deliver educational activities relevant to instructing, teaching, and learning (Koohang & Harman, 2005, as cited in Sangrà, Vlachopoulos, & Cabrera, 2012, p. 148).

Some scholars describe e-learning as the integration of digital instruments and online technologies to enhance educational activities in adaptable, engaging, and easily accessible manners. In Duderstadt et al.'s (2002) words, e-learning can also mean the use of various electronic mediums including television, radio, DVD, mobile phone, CD-ROM, and the internet in educational settings to promote learning. in a comparable manner, Rosenberg (2001) considers e-learning as applying internet-based technologies to offer a wide range of educational options, emphasizing its ability for instantaneous updates, extensive accessibility, and support for multiple learning needs.

Additionally, e- learning is defined by Wang et al. (2010, p. 167) as the process of delivering knowledge and instruction to users via computer network technology, mainly over internet. Moreover, The American Society for Training and Development (ASTD) as mentioned in DeRouin et al. (2005) and subsequently in Norén Creutz and Wiklund (2014, pp. 303–304), outlines e-learning as an extensive array of applications and processes, including web-based and computer-based training, online collaboration, and virtual classrooms. These are transmitted through interactive TV, satellite broadcasts, audio and video recordings, intranet, and the internet. To summarize e-learning encompasses various tools and approaches that improve access to education beyond educational setting, enabling hands-on learning. these definitions together demonstrate how e-learning nature is changing and its promise in contemporary education.

1.2 Historical Development from Distance Learning to Online Education

E-learning evolved from early distance education methods, starting with Sidney Pressey's "Automatic Teacher" in 1924 and the PLATO system by Donald L. Bitzer in 1960. The "Automatic Teacher" used basic mechanical methods to assist students in practice and self-evaluation, whereas the PLATO system provided a more sophisticated experience that incorporated interactive learning and networked communication. These initial systems were innovative in that they provided automated evolution and feedback, which had been accessible only via manual teaching. Collectively, these two systems represented a pivotal shift towards contemporary learning platforms such as Moodle (Petrina, 2004; Etherington, 2017). Nipper (1989) categorized distance education into correspondence, broadcast, and computer-mediated learning, while Taylor (2001) introduced online and intelligent learning as fourth generation which relies on internet delivery, along with a fifth generation defined by intelligent systems that cater to learner requirements through AI-powered automation and personalized experiences.

Expanding on this paradigm, Anderson & Dron (2011) delineated three pedagogical generations in distance learning. The first, the cognitive- behaviorist generation, which stressed structured learning (seen as the personalized learning through instructional design and assessment) through cognitive-behaviorist pedagogies appropriate to printing press and radio as technologies of learning. The second generation, social constructivist, brought forth interactive learning that emphasized teamwork and active development of knowledge, facilitated by many to many communication tools such as email and forums. The third generation of distance education is termed the connectivist generation, centers on learning through networks, where knowledge is constructed and disseminated via digital links and content produced by users. Each generation reflects the technological possibilities of its time. In contemporary setting, these different teaching approaches exist alongside one another, providing a range of methods tailored to accommodate the diverse needs of learners.

The internet and digital tools have transformed education by enabling flexible, accessible, and personalized learning experiences. During COVID-19 pandemic, 85% of universities worldwide adopted e-learning as their primary teaching mode, hastening its assimilation into conventional education. Following this shift, advanced technologies like AI and VR have significantly improved both accessibility and personalization in online education (Hargreaves, 2003; Kahiigi et al., 2007).

1.3 Types of E-learning

E-Learning has types that cater to different learning needs; these include synchronous, asynchronous, and blended learning

1.3.1 Synchronous Learning

Synchronous learning sometimes referred to as real-time learning, entails live communication between students and teachers in virtual classrooms environments. Participants can see, talk, and work together at the same time using services such as Zoom or Microsoft Teams. This format is similar to a traditional classroom setting and promotes prompt feedback. It assists students to stay organized by adhering to a set timetable.

1.3.2 Asynchronous Learning

Asynchronous learning offers the convenience of accessing course materials whenever it suits the learners, enabling them to study at their own speed. Frequently, forums, PDFs, and pre-recorded videos are used to spread content. Although there is no real-time engagement, students can go back

over the content whenever they need to. This approach is ideal for individuals with limited time or those who favor to learn independently. It facilitates self-directed learning and tends to be more available and cost-effective.

1.3.3 Blended Learning

Blended learning combines both approaches, integrating real-time engagement with flexible, self-paced access to provide a well- rounded educational experience. Students can participate in planned live sessions as well as work on assignments independently. Blended learning is commonly implemented in educational setting due to its flexibility and efficiency.

1.4 Benefits and Challenges of E-learning in Universities

The growth of e-learning is fueled by advancements in ICTs, enabling anytime anywhere learning, adaptive learning, and AI in education (Kebritchi et al., 2017; Choudhury & Pattnaik, 2020). Tools like Web 4.0, LMS, and virtual/augmented reality play a role in enhancing learning experiences and student-teacher interaction (Jagatheesaperumal, Ahmad, Al-Fuqaha, & Qadir, 2022). E-learning offers significant benefits to university education, including flexibility, accessibility, cost-effectiveness, and personalization. It enables equal access to information regardless of location or background (Raspopovic et al., 2017) and tailor instruction to individual needs for effective learning (Joshua et al., 2016). E-learning also fosters self-reliance in students and enhances communication through interactive tools like video capabilities. It offers a convenient, affordable option for both part-time and full- time learners globally (Radu, Radu, & Croitoru, 2011).

While e-learning provides many benefits, it also poses key challenges that universities must tackle. One of the most pressing issues is the digital divide, as unequal access to technology and reliable internet creates disparities in learning opportunities. Ensuring quality assurance in online courses is another significant challenge, requiring institutions to maintain rigorous standards equivalent to traditional education. Furthermore, fostering student engagement and motivation in a virtual environment demands innovative strategies from educators. Lastly, the increased workload for faculty, stemming from the creation and management of online courses, often leads to stress and fatigue.

2 Learning Management Systems (LMS)

2.1 Definition of Learning Management Systems

Chang (2008) describes a Learning Management System as an online platform that allows educators to oversee their individual courses and transfer information through various tools such as discussion forums, email, virtual chat, and other resources for delivering course content. A Learning Management System (LMS) is a digital platform designed to deliver, manage, and track educational content and activities. Originating from Integrated Learning Systems (ILS), LMS platforms have evolved to include advanced features such as personalized learning paths, analytics, and integration with other technologies (Watson & Watson, 2007; Szabo & Flesher, 2002). According to Ellis and Ryann, LMS is a software tool used for managing, recording, monitoring, and delivering training courses or other online learning initiatives. In general, an LMS is a vital component of today's educational and training contexts since it often operates as a centralized system that facilitates communication and the delivery of lessons.

2.2 LMS Features and Functions

A variety of fundamental and sophisticated features that support the teaching and learning process are included in LMS platforms. The main features are as follows:

- **Course Administration:** By administering instructor assignments, scheduling and registration, learning management system (LMS) speed up the effective management of extensive educational initiatives (Gilhooly, 2001).
- **Content Delivery and Management:** LMS facilitates the dissemination of multimedia educational resources including videos, quizzes, documents, and immersive modules, that can be accessed at any time and from any location (Szabo & Flesher, 2002)
- **Tracking and Reporting:** LMS systems enable educators and educational institutions to monitor students' progress and create performance reports, which can contribute to continuous assessment (Bailey, 1993).
- **Personalized Learning Paths:** Contemporary LMS integrate adaptive learning technologies designed to provide a personalized learning experience based upon learners' requirements and progress (Reigeluth, 1994).
- **Integration and Interoperability:** These are crucial for LMS platforms to be compatible with different e-learning technologies, as they adhere to standards such as SCORM and AICC (Connolly, 2001).

- **Security and User Management:** LMS, incorporate systems that protect course content from unauthorized access or breach for example: authentication, passwords, and the use of encrypted access to user information (Taylor, 2004).

2.3 Popular LMS Options

Daniel-Vasile and Ovidiu-Ilie (2024) state that there are different LMS platforms that are commonly utilized in higher education, each can offer specific available features that may fit the needs of its institution.

- **Moodle:** An open-source platform that allows for significant personalization and adaptability. Universities worldwide favor it because of its extensive plugin library and community assistance.
- **Canvas:** Is well-known for its user-friendly interface and smooth connection with external tools, making it the perfect choice for institutions that appreciate ease of use and modern design.
- **Blackboard:** Suitable for large-scale educational settings, it supplies sophisticated assessment capabilities, analytical tools, and strong security measures.
- **Google classroom:** This platform optimizes communication and resource sharing, making it particularly useful for organizations that are currently utilizing Google Workspace.

2.4 The Role of LMS in Higher Education

In the context of higher education, LMS platforms promote a shift from conventional teacher-centered instruction to more learner- centered, engaging approaches. They enable students to advance at their own rate, access resources autonomously, and get tailored feedback from instructors. Reigeluth (1994) indicated the necessity to adapt instruction to learners' unique needs that today's LMS is designed to facilitate. Schelechty (1991) also underscored the importance of ongoing learning enhancements, which LMS platforms facilitate through data monitoring, adaptable delivery, and focused evaluation.

By offering in-depth analytics and enhancing administrative efficiency, LMS promotes dynamic collaborative, multimedia learning environments for students and educators.

2.5 Advantages and Disadvantages of LMS Use

Learning Management Systems offer several advantages, including providing a centralized platform for organizing and distributing educational content. They facilitate tracking and analytics, enabling institutions to monitor student progress and implement personalized learning interventions, which enhance motivation and accountability. Additionally, LMS platforms are highly scalable, accommodating growth in students, courses, and educators without compromising the quality of education (iDream Education, n.d.).

LMS have several disadvantages, including a learning curve that requires time for users to navigate and utilize the platform effectively (GoGuardian, n.d.). Technical issues, such as integration challenges and compatibility problems with existing systems, can complicate the implementation and maintenance. Additionally, the potential for reduced face-to-face interaction may lead to student isolation, as digital features like forums cannot fully replicate the immediacy and personal connection of in-person communication.

3 Moodle as an LMS

3.1 Moodle: Features, Pedagogical Foundations, and Educational Applications

According to Krouska et al. (2017), Moodle is a reliable and incorporated learning management system designed to provide teachers, students, and administrators a consolidated platform for creating tailored educational settings. It encompasses a wide variety of traditional and cutting-edge tools that assist in instructional design and presentation. Moreover, its features can be further augmented by plugins developed by the community, enabling users to extend the system's functionality. In simple terms, Moodle contains a browser-based platform that is easy to use trustworthy. Numerous educational requirements, including, teamwork, content distribution, and course administration, are supported by its adaptability and scalability. It is likewise a flexible resource for contemporary education.

More than merely a software name, the word *to Moodle* originated by its founder Martin Dougiamas, embodies the concept of exploratory and innovative learning that inspires users to try new things and be active inside the platform. Moodle, an acronym for **Modular Object-Oriented Dynamic Learning Environment**, is a free, open-source learning management system that promotes flexible and engaging learning experiences (Costello, 2013). Due to its modular nature, teachers can add a range of resources to their courses consisting of assignments, quizzes, and discussions. The fact that Moodle is a free service allows for many installations across several

types of servers without licensing costs; this reflects to the ideals of flexibility, freedom, and collaboration. (Cole & Foster, 2008).

The socio-constructivist approach underpins Moodle, giving students the opportunity to actively engage in interactive learning environments both synchronously and asynchronously. Moodle fosters collaborative learning settings in which teachers and students from varied nations connect meaningfully despite linguistic or geographic disparities. The Moodle design supports communication through features such as live chats, forums, and virtual classrooms, replicating real-world learning environments. These characteristics render Moodle extremely useful for blended and remote learning models, particularly in contexts involving international cooperation (Kerimbayev, Kultan, Abdykarimova, & Akramova, 2016).

Alongside its pedagogical strengths, Moodle includes useful tools that improve course execution and classroom management. This versatile LMS provides educators with robust tools for course management, enabling efficient organization, enrollment, and learning path creation. It supports diverse content creation and delivery options, including multimedia materials and SCORM packages. Moodle offers comprehensive assessment and grading features, such as customizable quizzes and automated grading, to track student performance effectively. Its communication tools, like forums and messaging, foster collaboration and engagement, while the platform's high customization and plugin capabilities allow for tailored functionalities to meet specific educational needs. These features make Moodle a powerful solution for enhancing learning experiences.

3.2 Moodle's Prevalence in Higher Education

Across both developed and developing educational settings, Moodle is popular learning management system. With certain institutions hosting over 200,000 users, open universities in nations like the UK and Spain have widely adapted extensively. The multi-lingual functionality promotes opportunities for various academic groups as it has more than 80 languages supported. Due to the open source framework, educational institutions are able to implement Moodle at no cost, free from licensing limitations, which permits unrestricted implementation in both private and public sectors. The broad adoption of Moodle is a reflection of its compatibility with modern educational goals including worldwide cooperation, inclusiveness, and scalability (Subramanian et al., 2014, p. 30–32).

3.3 Comparison with Other LMS Platforms

Unlike Blackboard and other privileged systems, Moodle is known for its flexibility, affordability, and user-oriented design. By 2009, Blackboard still held a 60% share of LMS market with more than 20 million users, yet Moodle emergence as a free, community-based option started to threaten this supremacy. Moodle has improved its count and use by educational institutions globally since 2013, improving localization by translating the site into 82 languages. The Moodle's versatility is crucial since it allows instructors to personalize course structure, rubrics, and incorporate various teaching resources without limitations imposed by vendors. In addition, institutions switching from Blackboard to Moodle frequently highlight cost-effectiveness, alignment with teaching methods, and usability as vital reasons for their choice. In head-to-head comparison of Blackboard and Moodle, they report that Moodle has matched, and in some circumstances better, Blackboard to in-built tools for communication, engagement, and content arrangement (Subramanian et al., 2014).

4 User Attitudes Towards E-Learning Systems

A combination of technological, social, and individual variables influences how well users embrace e-learning systems. The Technology Acceptance Model (TAM) identifies percieved usefulness and perceived ease of use as key constructs in accepting technology. Teachers and students are more inclined to use an e-learning platform if they fell it will be improving their performance and user-friendly. Additionally, social influence, including peer motivation, organizational culture, and support from leadership also greatly impacts adoption choices. Moreover, enabling factors like consistent internet connectivity, dependable access to stable digital devices, and technical assistance are crucial in promoting and restricting interaction with the platform.

Attitudes regarding e-learning are also influenced by personal traits such as age, gender, previous technology experience, and learning styles. For instance, younger and more digitally literate users may be able more adaptable than others who may need extra support and training. The institution's involvement is just as vital: clear procedures, administrative backing, and frequent training programs are all necessary to make sure that users not only embrace but also make a good use of e-learning platforms. Ultimately, effective adoption depends on a comprehensive strategy that take into account both human and technological aspects of digital learning environments.

Several studies have been conducted on attitudes towards Learning Management Systems (LMS). Iwasaki, Tanaka, and Kubota (2003) examined the use of LMS in relation to teaching philosophies and course characteristics. They emphasized the importance of developing tailored learning models that align with specific courses and instructors to enhance the effective utilization of LMS. They also recommended conducting case studies to promote collaborative learning and better understand its implementation.

In a study related to Moodle as open source learning communities, Dougiamas and Taylor (2003) also utilized case study as a component of research methodology in revealing the effectiveness of Moodle as a course management system platform for reflective inquiry learning. In underpinning the present study, the researcher further highlights the theoretical framework as a model for the utilization of LMS in the learning process. In the context of developing countries, particularly Algeria, studies have shown positive outcomes regarding Moodle. For instance, during the COVID-19 pandemic, a study at Saida University highlighted students' positive attitudes towards Moodle as a motivational educational platform (Ghounane, 2020). However, challenges such as limited access, lack of platform knowledge, network issues, and insufficient resources hindered its full utilization for some students (Ghounane and Rabahi, 2023).

Overall, Moodle is recognized as a dynamic platform that fosters interaction and skill development but requires technical support and resources to enhance user experience and engagement. In developing countries like Algeria, several studies have highlighted both the advantages and challenges of using Moodle. For instance, during the COVID-19 pandemic, a study at Saida University revealed that students had a positive attitude towards Moodle as a motivational educational platform (Ghounane, 2020). However, other studies identified barriers such as limited access, poor platform knowledge, network issues, and lack of resources (Ghounane and Rabahi, 2023).

While Moodle is dynamic and fosters interaction and skill development, its effective use requires technical support and adequate resources to enhance user experience. Sarnou and Sarnou (2021) studied the challenges of teaching MA students online at the University of Mostaganem during quarantine, finding that students preferred face-to-face learning over using the MOODLE platform. Alternatives like Google Meet and Facebook groups were more effective, suggesting the need for reconsidering online learning integration.

Although Moodle is implemented at Bouira University, its effectiveness in promoting interactive learning in the English Department is unclear. While language learning requires

dynamic engagement, Moodle is primarily used for content delivery, with limited use of its interactive features like forums, quizzes, and immediate feedback. Therefore, this study will explore how Moodle is used in English language instruction and assess its impact on fostering an engaging learning environment for both teachers and students.

5 Technology Acceptance Models

Research on technology acceptance has led to the development of various models aimed at understanding user adoption of new technologies. Prominent frameworks include the Technology Acceptance Model (TAM), the Unified Theory of Acceptance and Use of Technology (UTAUT), and the Innovation Diffusion Theory (IDT). These models focus on key factors such as perceived benefits, ease of use, performance expectations, effort required, social influence, and external support in predicting behavioral intention and technology use.

TAM, introduced by Davis (1989), is based on the Theory of Reasoned Action and highlights perceived usefulness and ease of use as critical factors for acceptance. Subsequent extensions, such as TAM2 and TAM3, incorporated additional elements like subjective norms, job relevance, and self-efficacy to enhance its predictive capacity, particularly in digital learning contexts. UTAUT, developed by Venkatesh et al. (2003), integrates several prior models and emphasizes performance expectancy, effort expectancy, social influence, and facilitating conditions, with moderators like age, gender, and experience affecting these relationships. UTAUT2 further extends this framework by incorporating factors like intrinsic motivation, cost considerations, and habitual behavior, broadening its relevance to consumer technology adoption. IDT, formulated by Rogers (1962), explains how innovations spread through society, emphasizing characteristics such as relative advantage, compatibility, complexity, trial ability, and visibility.

In educational settings, these models have been adapted to include aspects like enjoyment and self-directed learning to better reflect digital tool adoption. Empirical research underscores the effectiveness of UTAUT in studying LMS adoption, with performance expectancy, effort expectancy, and social influence identified as key drivers. Each model has its advantages and constraints: TAM is straightforward but may not account for external influences, UTAUT is comprehensive but complex, and IDT provides insights into technology diffusion but may not fully capture individual perceptions in learning environments. A thorough understanding of these models allows educational institutions to effectively implement digital tools, enhancing learning experiences and outcomes. As regards Moodle in particular, these frameworks provide an understanding of how perceived utility, ease of use, and social Influence contribute to both teachers

and learners' attitudes toward Moodle in terms of their willingness to participate, the level of their involvement, and their general contentment with its application in academic contexts such as the English department at Bouira University.

6 Cultural and Contextual Factors in E-Learning Adoption

The adoption of e-learning in higher education is significantly influenced by cultural factors, and Hofstede's (2001) cultural dimensions provide a useful framework for analyzing how national culture affects learning behaviors and technology acceptance. Algeria's educational system has undergone considerable expansion in recent decades. Yet, its approach to digital learning reflects both opportunities and challenges shaped by cultural attitudes towards technology, learning autonomy, and institutional structures.

Algeria's educational institutions are traditionally structured with a strong reliance on instructor-led teaching, which reflects the hierarchical nature associated with a high power distance (Hofstede, 2001). In cultures with a high degree of hierarchical influence, students often expect explicit guidance from instructors rather than engaging in self-directed learning. This preference suggests that e-learning platforms in Algeria should prioritize structured, instructor-led content with clear authority figures to align with learners' expectations. Research indicates that while high power distance can correlate with technology adoption, it may limit engagement in interactive or student-driven e-learning environments (Tarhini et al., 2016).

Furthermore, Algerian society leans towards collectivism, meaning that social relationships and group-oriented learning play a key role in education (Hofstede, 2001). Studies have shown that students in collectivist cultures are more likely to engage in collaborative learning and benefit from social interactions in digital learning environments. Research on technology acceptance has demonstrated that collectivist learners tend to rely on social influence when adopting new digital tools, emphasizing the importance of incorporating discussion forums, group projects, and peer-assessment features into Learning Management Systems (LMS) (Hameed et al., 2016).

A major challenge in Algeria's e-learning adoption is uncertainty avoidance, which refers to the degree to which individuals feel uncomfortable with ambiguous or unfamiliar situations (Hofstede, 2001). High uncertainty avoidance cultures tend to resist new technologies unless they are introduced with clear guidelines and structured frameworks. In the Algerian context, both students and faculty members often struggle with digital transitions due to limited training, insufficient institutional support, and concerns about the reliability of online platforms. These challenges are often linked to a lack of preparedness and resistance to change, especially when

there is no institutional guidance. Additionally, issues such as inadequate infrastructure and low digital literacy among students further complicate the adoption of online learning (Panicker, 2020).

Despite governmental efforts to enhance digital education, technological infrastructure and digital literacy remain significant challenges in Algeria. Universities have increasingly adopted e-learning platforms, yet many students lack the necessary digital skills to navigate online resources effectively. Faculty members also require targeted training to integrate technology effectively into their teaching practices. Research emphasizes that without sufficient training, both students and instructors face difficulties in adapting to digital learning environments (Srite & Karahanna, 2006).

The Algerian government has introduced various policies to promote digital learning, including investments in ICT infrastructure and virtual education platforms. However, implementation remains inconsistent, with disparities in access to online learning tools and resistance to digital pedagogy among educators. To ensure successful adoption, it is crucial to align LMS design with cultural learning preferences while also addressing infrastructure limitations and faculty training needs. Hofstede's cultural dimensions provide a useful perspective on e-learning adoption in Algeria. The preference for hierarchical learning structures and group- oriented study suggests that digital platforms should emphasize instructor-led guidance and collaborative tools. At the same time, overcoming resistance to digital learning requires structured institutional support, training, and improved technological accessibility. Future research should further explore how cultural attitudes interact with institutional policies to create inclusive and effective digital education strategies.

7 Pedagogical Effectiveness in Moodle

7.1 Personalized Learning Experiences

Personalized learning is defined generally as an instructional method that adapts the content, pace, and learning path to meet individual learners needs, preferences, and abilities. It is frequently associated with the principles of self-regulated learning (SRL), which place a strong emphasis on the learner's active role in managing their educational processes. Pintrich (2000) defines self-regulated learning as: "an active, constructive process whereby learners set goals for their learning and then attempt to monitor, regulate, and control their cognition, motivation, and behavior, guided and constrained by their goals and the contextual features in the environment (p.453)." He emphasizes that Effective learners are not simply passive recipients of information; instead, they actively direct and adjust their learning methods based on their internal objectives and external circumstances. This conceptualization underpins the foundation of personalized

learning models, which customize instruction to accommodate the varied profiles and preferences of individual learners. In this context, Moodle's architecture supports personalized learning through multiple adaptive features:

7.2 Customizable Learning Paths

Stanford (2009) highlights Moodle's ability to design individualized learning paths, allowing teachers to create courses that adapt responsively to student performance. This flexibility is crucial for addressing learner diversity, as it enables students to engage with material at different levels of complexity and follow pathways that align with their prior knowledge and learning pace. This reflects pedagogical principles discussed by Srinivasa, Kurni, and Saritha (2019), who argue that digital learning platforms should be designed to adapt both content and assessment methods to meet the diverse cognitive abilities and learning preferences of modern students.

7.3 Individual Progress Tracking

A key feature that supports Moodle's capacity for personalized learning is its comprehensive progress tracking tool, which offers immediate feedback on learner achievements and gaps. Alserhan et al. (2023) argue that incorporating progress monitoring and feedback tools within LMS platforms plays a crucial role in improving students' self-regulated learning by fostering metacognitive awareness and strategy adjustment. This aligns with the theoretical framework presented by Boekaerts et al. (1999), emphasizing that feedback and self-monitoring are important for sustaining motivation and improving academic outcomes. Displaying learning milestones and deadlines on Moodle promotes students' proactive management of their study schedules, thereby fostering greater autonomy and accountability.

7.4 Adaptive Assessment Mechanisms

Adaptive assessment mechanisms within Moodle enable the real-time modification of task difficulty and feedback based on individual learner performance. These features support formative evaluation by customizing tasks to match students' current proficiency levels, thereby enhancing engagement and personalized learning experiences. According to DeMarcos et al. (2010), adaptive systems in LMS environments improve learner outcomes by using feedback-driven pathways. This instructional flexibility aligns with Bloom's (1984) mastery learning theory, which asserts that most students can achieve high levels of understanding when provided with adequate time, targeted feedback, and corrective instruction. Such alignment promotes deeper comprehension and sustained retention of knowledge.

7.5 Personalized Feedback Systems

Personalized feedback plays a vital role in fostering self-regulated learning by assisting learners in tracking their progress and modifying their strategies as accordingly. Boekaerts, Pintrich, and Zeidner (1999) emphasize that feedback supports metacognitive control by providing students with data about their performance relative to learning objectives. This enables students to reflect on their actions and make necessary changes to improve outcomes. In digital platforms like Moodle, customized feedback encourages learner autonomy and motivation, which are essential elements for successful self-regulation and sustained academic growth.

7.6 Enhanced Collaborative Activities

Particularly in digital learning contexts, collaboration is commonly recognized as a fundamental element of effective learning. As Roschelle and Teasley (1995) define, collaboration is "a coordinated, synchronous activity that is the result of a continued attempt to construct and maintain a shared conception of a problem (p. 70)."

Moodle's fundamental collaborative feature is its discussion forums, which facilitate asynchronous communication among students and between students and teachers. These forums allow students to participate in thoughtful conversation, exchange diverse viewpoints, and the negotiation of meanings over time. According to Rabbany et al. (2011), such forums play a crucial role in cultivating a community of inquiry by enabling students to express their ideas, challenge assumptions, and receive constructive feedback. They state, "Discussion forums provide opportunities for students to articulate their thoughts and receive feedback from peers and instructors, fostering a community of inquiry". This ongoing interaction promotes deeper cognitive engagement and supports the development of critical thinking skills, which are vital in higher education contexts. Tools for group projects also promote the co-creation of knowledge by supporting peer coordination, resource exchange, and shared accountability (Ghodrati & Gruba, 2011). Furthermore, Moodle's peer review functions enhance evaluative and metacognitive abilities by enabling students to critique each other's work; as McCabe (2023) notes, "Peer assessment within Moodle encourages students to critically evaluate each other's work (p. 102)." Synchronous methods like chat and virtual classrooms complement these asynchronous tools by increasing immediacy and learner motivation. According to Huisman et al. (2019), the integration of both synchronous and asynchronous tools within Moodle fosters a well-rounded collaborative environment that accommodates diverse learner preferences and enhances overall interaction in digital settings. Overall, these tools support social constructivist principles by facilitating

meaningful collaboration that reflects real-world interactions and fosters profound learning (Topping, 2009).

7.7 Flexible Instructional Design

A crucial component of Moodle's pedagogical efficacy is its flexible instructional design, which allows teachers to create courses that cater to the wide range of learner needs while also ensuring a high level of engagement and accessibility. Moodle's modular course architecture allows for adaptable sequencing of content, supporting differentiated instruction and minimizing cognitive overload. Srinivasa, Kurni, and Saritha (2022) emphasize that this modular strategy enables teachers to create personalized and flexible learning pathways that accommodate varying student skills and learning paces. The platform supports the delivery of content in multiple formats—including text, audio, video, and interactive quizzes—catering to different learning preferences and fostering active participation. As Boekaerts, Zeidner, and Pintrich (1999) note, effective learning environments engage several sensory modalities in order to improve cognitive processing and motivation. Furthermore, the seamless integration of multimedia materials enriches cognitive engagement by presenting information through diverse formats, thereby improving comprehension (Mikropoulos et al., 2018). Moodle also incorporates important accessibility features such as screen reader compatibility and customizable interfaces, ensuring equitable access for learners with disabilities (Alserhan et al., 2023). Collectively, these design elements cultivate an adaptable, inclusive, and learner-centered environment that underpins effective digital pedagogy.

8 Meta-Analysis Insights

The instructional value of digital learning platforms such as Moodle is contingent upon a complicated combination of institutional, technological, and human variables. Meta-analytical studies emphasize that successful deployment extends beyond mere technological adoption, necessitating a comprehensive approach that encompasses strategic planning, infrastructure adequacy, faculty development, and learner support systems. Effective institutional planning is vital for aligning technological integration with pedagogical goals, ensuring that Moodle is seamlessly incorporated into the curriculum. Greater learner participation and better instructional results are often seen in institutions that have well-defined plans and supportive policies (Sailer & Homner, 2019). Equally important is the availability of robust technical infrastructure, including reliable internet connectivity and system stability, which forms the foundation for uninterrupted learning experiences. Deficiencies in this area can disrupt motivation and participation, thereby

limiting Moodle's pedagogical benefits (Mikropoulos et al., 2018). Continuous educator training is essential for enabling instructors to adapt their teaching methods to digital environments. This training should focus not only on technical skills but also on fostering interactive teaching, providing prompt feedback, and encouraging learner independence—factors that contribute to higher course quality and improved student performance (Boekaerts, Zeidner, & Pintrich, 1999; Srinivasa, Kurni, & Saritha, 2022).

As students' capacity to navigate and interact with the platform directly affects their success, another essential aspect is supporting their digital literacy. Implementing targeted support strategies enables students to develop confidence and self-regulation skills, which are crucial for active engagement in online learning and for unlocking the full educational potential of Moodle (Alserhan et al., 2023). Overall, meta analytic research supports the notion that the extent to which digital platforms result in meaningful cognitive, motivational, and behavioral learning gains is determined by the synergy of strategic planning, technical readiness, educator development, and student support (Sailer&Homner,2019).

Section Two: Research Design and Methodology

1 Research Methodology

According to Kothari& Garg (2004), "Research methods may be understood as all those methods/techniques that are used for conduction of research. In other words, all those methods which are used by the researcher during the course of studying his research problem are termed as research methods (p. 8)." This study adopts a mixed-method research approach, to explore Students' and Teachers' Perspectives of Moodle's Pedagogical Effectiveness. According to Johnson and Onwuegbuzie (2004), "Mixed methods research is formally defined as the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts, or language into a single study (p. 17)."

The integration of both quantitative and qualitative data collection and analysis provides a comprehensive understanding of participants' experiences, behaviors, and perceptions. Quantitative methods allow for the collection of numerical data on the frequency, consistency, and patterns of Moodle use among students, facilitating statistical analysis and generalizations. On the other hand, qualitative methods offer the opportunity to explore the underlying motivations, beliefs, and challenges perceived by teachers through in-depth, open-ended interviews.

2 Case Study

The study adopts a case study design, focusing specifically on the English Department at Bouira University. As noted by Kothari and Garg (2004) "case study method is a very popular form of qualitative analysis and involves a careful and complete observation of a social unit, be that unit a person, a family, an institution, a cultural group or even the entire community. It is a method of study in depth rather than breadth (p. 113)." This design was selected because it allows for a detailed exploration of Moodle usage within a specific institutional environment, considering local practices, policies, and user experiences. By focusing on the department of English at Bouira University, the study gains contextual depth and relevance, making it possible to identify patterns that might be overlooked in broader surveys. Overall, the combination of a mixed-methods approach within a case study framework was selected to ensure that the research captures both the breadth and depth of both teachers and students' attitudes towards Moodle.

3 Population and Sampling

The target population of our study consists of teachers and students from the department of English at Bouira University. It was chosen based on its direct engagement with Moodle.

3.1 Teachers

The teacher population includes instructors of varying ranks and years of teaching experience, ensuring a range of pedagogical perspectives regarding the use of Moodle. Despite the fact that there are 11 teachers at the department only 5 of them use full options of the Moodle, the other teachers are using e learning just to upload pdf therefore we address only the 5 teachers among which only 4 teachers answer our interview. This limited participation was primarily due to the data collection coinciding with the examination period, during which teachers were engaged in supervising tests, correcting exam papers, and finalizing students' grades. Despite the small number of participants (n = 4), the data obtained yielded rich qualitative insights that significantly enhanced the understanding of Moodle's pedagogical application, in alignment with the principles of case study methodology.

3.2 Students

The student's population involves individuals across different academic levels from First-year undergraduates to Master 2, thus providing diverse demographic range in terms of age, gender, educational background, and digital literacy. During the quantitative phase of the study, a stratified random sampling approach was utilized to ensure a representative and meaningful

distribution of participants. This technique involved partitioning the population into distinct subgroups, or strata, according to a specific characteristic—namely, academic level, which included First-year, Second-year, Third-year, Master 1, and Master 2 students. From each stratum, participants were randomly selected to form the sample. The main objective of employing stratification was to guarantee proportional representation of each academic level within the sample, thereby improving the external validity of the results and reducing potential sampling bias.

3.3 Sample Size

According to Fraenkel, Wallen, andHyun (2012), "A sample is a group of subjects on which information is obtained; ideally, it should represent the population from which it is drawn (p. 91)." For the qualitative phase, purposive sampling was employed to select a smaller group of faculty members who actively use Moodle in their teaching. The sample size for the quantitative phase consisted of 80 students, they were surveyed through an online questionnaire. For the qualitative phase, 04 teachers were selected for semi-structured interviews. This sampling strategy ensured the inclusion of participants who were most relevant to the research objectives. By integrating both quantitative and qualitative data sources, the study employed methodological triangulation, thereby enhancing the credibility and comprehensiveness of the research outcomes.

4 Data Collection Instruments

To collect data for the present study, two main instruments were employed: a student questionnaire and structured interviews with educators. These instruments were selected to align with the mixed-methods research design, which integrates both quantitative and qualitative approaches. The questionnaire was designed to collect quantifiable data regarding students' attitudes toward the adoption of Moodle, while the semi structured interviews sought to obtain a more in-depth understanding of teachers' perspectives. This mixed approach facilitated a comprehensive analysis of how both students and teachers perceive and experience the incorporation of such platforms within the teaching and learning process.

4.1 Questionnaire

According to Bryman (2016), "A questionnaire is a structured set of questions, often standardized, designed to collect quantifiable data from respondents in a way that allows for easy comparison and analysis (p. 224)." In this study the student's questionnaire is consists of 20 questions combining closed ended, Likert scale, and open-ended formats. The questionnaire is organized into four sections. The first section involves questions related to demographic

information and learning background, including participants gender, academic level, English proficiency, access to technology, and preferred learning style. The second section focuses on Moodle usage and technical experience. It consists of four questions, conveying frequency of access, familiarity with Moodle features, preferred websites and technical challenges. The third section examined learning Impact and engagement by measuring students on Moodle's effectiveness, learning outcomes, and user interaction. Finally, the fourth section addressed platform improvements and future outlook, it includes ranking tasks and open-ended questions that allow students to express their opinions on how Moodle could be enhanced to better support their learning styles and goals.

4.1.1 Pilot of the Questionnaire

In order to ensure reliability and validity of the questionnaire, a pilot study was administered to a small group of students before actual data collection process. This pretesting aimed to identify any confusing, ambiguous, or misleading items and to follow the logical order of questions. The feedback was then used to revise the instruments, pay attention given to language clarity, neutrality of phrasing, and item relevance, the use of consistent answer scales such as Likert type, and matrix questions, and identical completion requirements for each participant served to further strengthen consistency.

4.2 Interviews

An interview can be defined as a deliberate and structured conversation where the interviewer poses questions aimed at obtaining detailed information from the interviewee regarding their experiences, emotions, or knowledge (Rubin & Rubin, 2012). In this research, semi-structured interviews were conducted with a selected group of teachers about their professional experiences and pedagogical practices using Moodle. According to DiCicco-Bloom and Crabtree (2006), "Semi-structured interviews are characterized by the use of an interview guide with topics to be covered, but the interviewer has considerable freedom to explore new ideas brought up during the interview (p. 315)." The interview guide included open-ended questions focused on various themes including instructional use, benefits and challenges, institutional support, and perceptions of Moodle's impact on teaching practices. The semi-structured format facilitated a compromise between predefined questions and open-ended discussion, allowing educators to openly share their experiences, difficulties, and professional perspectives.

5 Data Collection Procedures

This section outlines the procedures followed in administering the student's questionnaire and conducting teacher's interview. To collect data, the student questionnaire was administered online using Google forms. The survey link was shared via institutional communication platforms such as email and official Facebook page of the faculty of Arts and Languages, ensuring accessibility for all participants across different academic levels. For the qualitative phase, semi-structured interviews were arranged with a purposive sample of teachers from the English department at Bouira University who had experience using Moodle in their teaching. The interviews were conducted face to face, each interview lasted between 30 to 45 minutes. All interviews were audio recorded to ensure accuracy transcription and analysis. The data collection process was conducted over a period of four weeks. The first two weeks focused on distributing the online questionnaire for students and collecting their responses. While the last two weeks were allocated for conducting teachers' interviews and preparing their transcription for analysis. To ensure data protection and confidentiality, no identifying information was collected, and all responses were anonymized.

5.1 Data Analysis Methods

"Data analysis involves organizing the data, conducting a preliminary read-through of the database, coding and organizing themes, representing the data, and forming an interpretation of them" (Creswell, 2014, p. 197). This study employed both quantitative and qualitative methods to analyze the collected data. Quantitative data from students' questionnaire was analyzed using descriptive statistics, which refer to numerical methods used to summarize the basic features of a dataset such as mean, frequency, and percentage. These methods were selected for their effectiveness in testing hypotheses and drawing generalizable conclusions. Factor analysis was also conducted to identify underlying dimensions within questionnaire, helping to group related items and better understand students' attitudes towards the use of Moodle as a learning platform in the English department at Bouira University. For the qualitative data, obtained from teachers' interviews, thematic analysis was used because of its flexibility and ability to reveal insights into teachers' experiences with Moodle.

Conclusion

This chapter confirms that successful implementation of Moodle involves more than just having the technological tools. In fact, it relies on educational consistency, user preparedness, and institutional understanding. Recognizing advantages and disadvantages of e-learning platforms aids in anticipating real-world challenges during their implementation. In addition, the examined theories and cultural dimensions help to clarify the complicated factors that influence how users interact in Algerian universities. The methodology section enhances this, by outlining how these dynamics will be examined in actual academic environments. By combining these two, the inquiry is guaranteed to be both theoretically sound and cognizant of the particular realities of its setting.

Chapter Two: Results and Discussion

Introduction

After gathering data from both students' surveys and teachers' interviews, the findings were examined and discussed in-depth to pinpoint significant trends. Particular attention was given to how Moodle enhances and constrains teaching and learning. This section additionally investigates user engagement, preferences, and the challenges associated with using Moodle, along with recommendations for improvements.

1. Analysis and Discussion of Data

1.1 Students' Survey

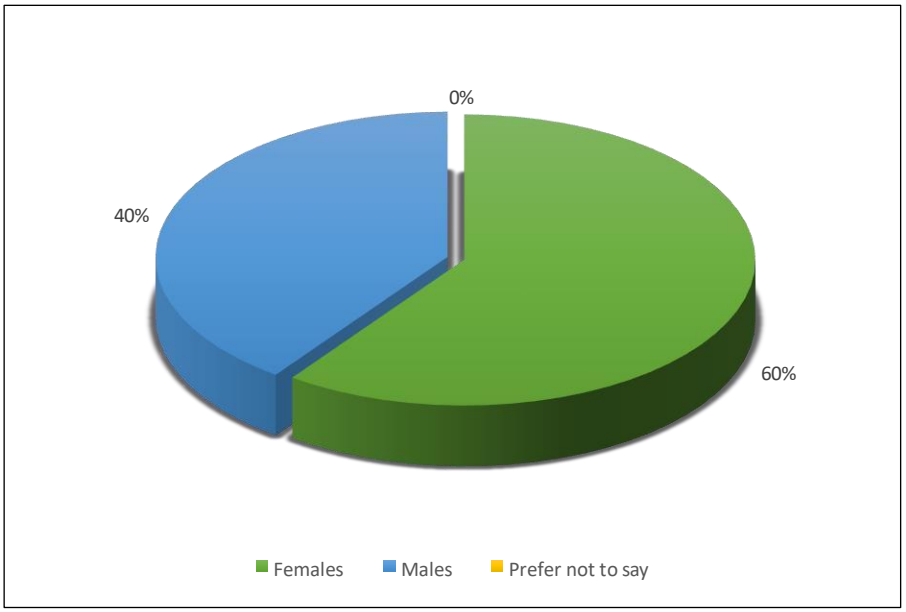
Section 1: Demographic Information and Learning Background.

Q 1. Students' Gender

Gender	Females	Males	Prefer not to say	Total
Number	48	32	0	80
Percentage	60%	40%	0%	100%

Table 1:Students' Gender.

Based on **table (1)**, the gender distribution of the sample demonstrates that females dominate (60%, 48 items) over males (40%, 32 items) as illustrated in **graph (1)**.



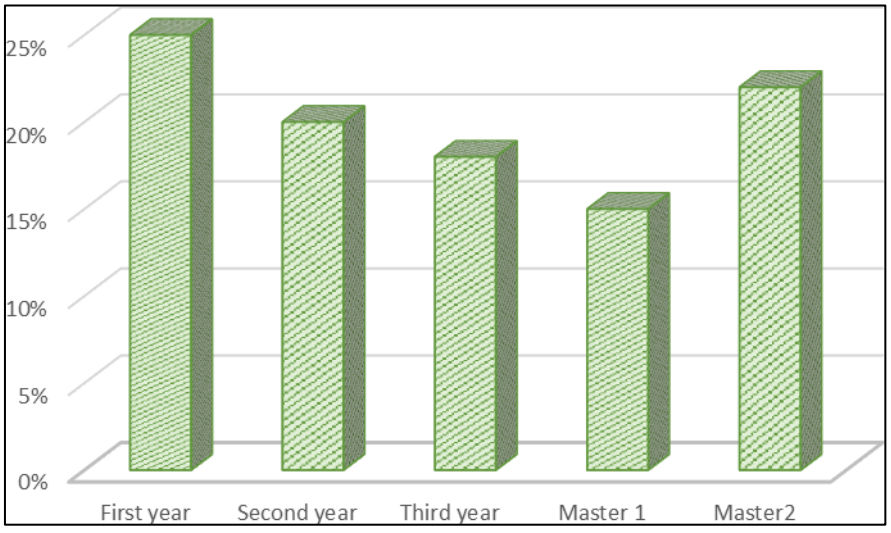
Graph 1: Students' Gender.

The dominance of females can be attributed to two main aspects. The first one is that female students are more interested in the topic and more motivated to enhance the e-learning experience at the department. The second is that the results are logical due to the fact that females constitute the larger number of students at the level of the department as well as the whole university. Hence, the sample used in our study effectively reflects the population. Moreover, this gender disparity, along with other factors as age, social and economic factors, in the sample might influence "Moodle" interaction trends, considering established gender variations in online learning habits. The total absence of "prefer not to say" responses imply respondents' comfort with sharing their information.

Q 2. Academic Level

Academic year	Number	Percentage
1st Year	20	25%
2nd Year	16	20%
3rd Year	14	18%
Master 1	12	15%
Master 2	18	22%

Table 2: Students' Academic Level.



Graph 2: Students' Academic Level.

As demonstrated in **table (2)** and **graph (2)**, the study encompassed participants from diverse educational backgrounds. The 1st year students constituted the largest group (25%) trailed by master 2 students (22%). The 3rd year and master 1 comprise 18% and 15% in that order. This even distribution highlights the engagement with Moodle throughout different academic stages.

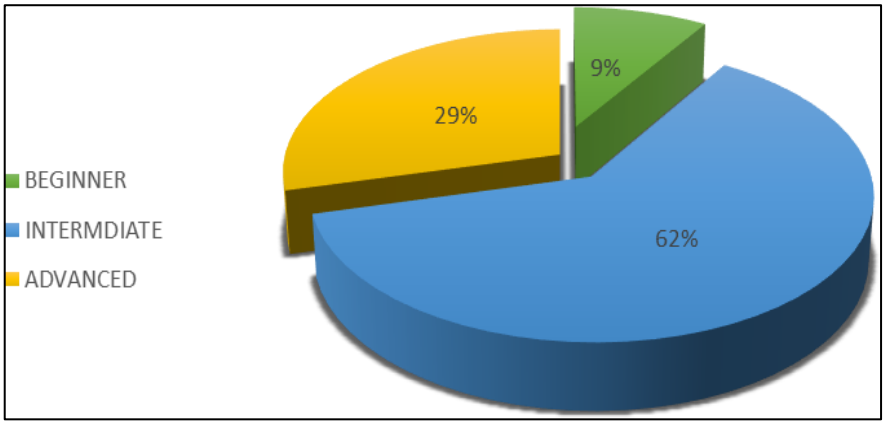
The representation across all levels offers important understanding of how the platform addresses various educational needs from first-year students mainly looking for basic materials to Master students needing advanced resources. In addition, it minimizes selection bias that can result from dealing with just one level and, therefore, the sample constitutes an effective representative of the whole population. In that way, the sample raises the validity and reliability of the research results.

Q 3. Self-Assessed English Proficiency

Students were asked to select their English level from three choices. From **table (3)**, we can notice that 7 out 77 rated themselves as beginners which presents 9% of the sample. Nonetheless 48 out of 77 indicated that their proficiency level is intermediate which amounts to 62%. However, 29% of the total considered their level to be advanced which equals 22 students.

Levels	Beginner	Intermediate	Advanced	Total
Numbers	7	48	22	77
Percentage	9	62	29	100

Table 3: Self Assessed English Proficiency.

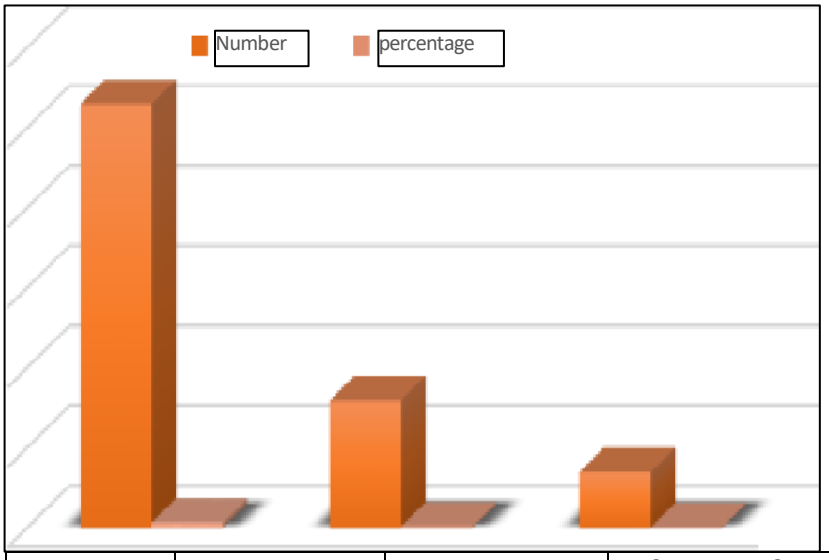


Graph 3: Self Assessed English Proficency.

From the results showed above, we can say that English students have an intermediate level

with little diversity due to varied learning techniques. The disparity in proficiency implies that Moodle materials should be primarily designed for intermediate users, with both beginner and advanced learners receiving support and challenges. The variation in language skills might also affect how students engage with Moodle's features, particularly those that necessitate active language use, such as forums and collaborative tools.

Q 4. Was studying English your choice?



	Your personal choice	**Your parents' decision**	**Influence of your environment**
number	53	16	7
Percentage	70%	21%	9%

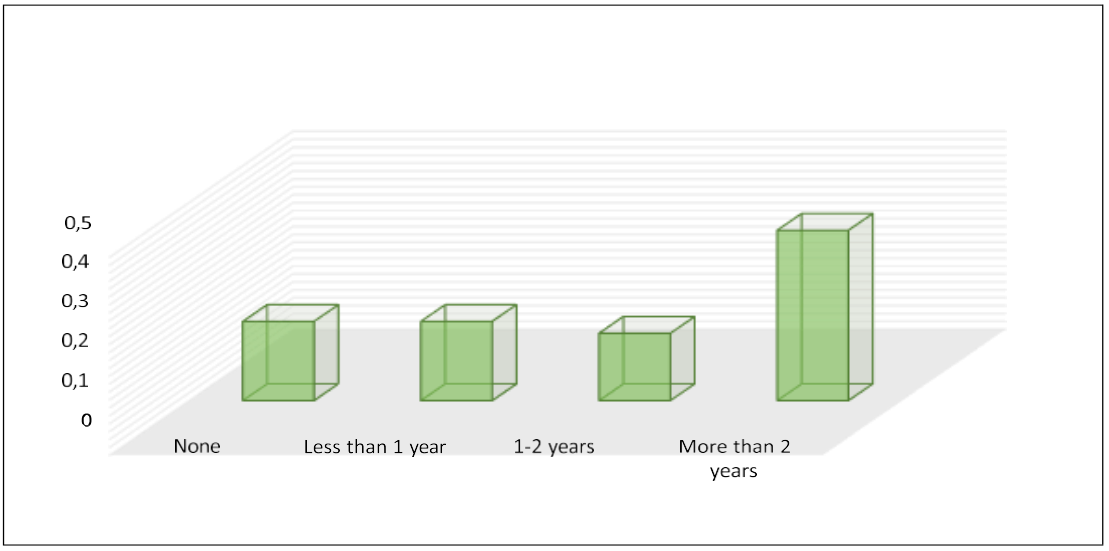
Graph 4: Students Choice of Specialty.

According to the findings displayed in **graph 4**, we observe that 70% of students chose to study English language by themselves, showing their interest in the language. In contrast, 21% followed their parents' choice, and only 9% influenced by their environment. The results show that most students selected English independently, which is a positive outcome as demonstrates their enthusiasm and desire to learn the language. This willingness increases the students' interest in the quality of the pedagogical tools used in their learning process and their effectiveness in obtaining the desired learning outcomes.

Q 5. Previous Online Learning Experience

Online learning experience	None	Less than one year	1-2 Years	More than 2 years
Number	16	16	14	34
Percentage	20 %	20 %	17 %	43 %

Table 4: Previous Online Learning Experience.



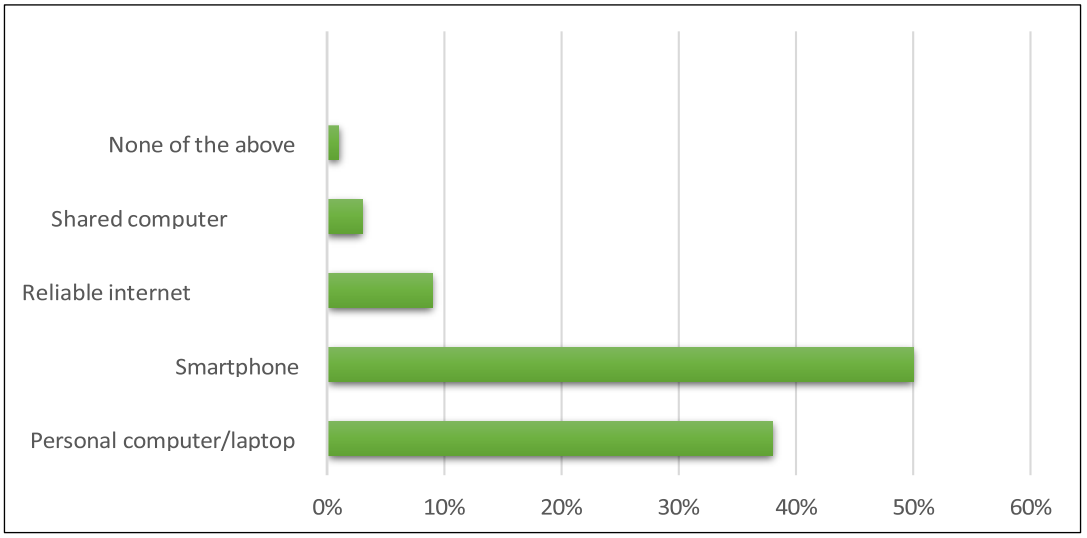
Graph 5: previous Online Learning Experience.

As shown in **table (5)** and **Graph (5)**, 43% of the students stated that they had over 2 years of experience with online learning, whereas 17% ranging from one to two years. Additionally, 20% had under one year of experience, and another 20% reported having no experience. These findings reflect differences in digital competencies which might influence their capacity to adopt "Moodle."

Q 6. Access to Technology and internet at Home

Q 6.1. Do you have access to the following devices?

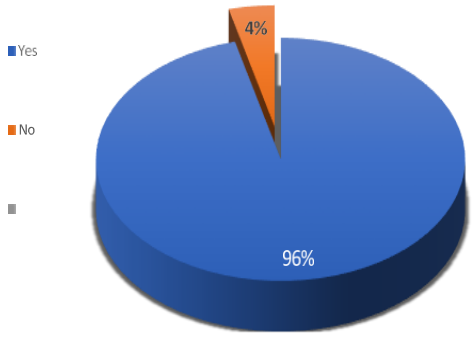
The graph reveals that (50%) of students have smartphones, whereas 38% owned personal computers and (9%) select “reliable internet connection” as the device choice. Moreover, (3%) had shared access and (1%) lack access to all devices. These results indicate that although most students are digitally connected, limited access to computers and internet hinders Moodle use.



Graph 6.1: Students' Access to Devices.

The increased use of smartphones over computers poses a real challenge for using Moodle, since mobile devices frequently restrict capabilities for more complicated academic tasks. These digital gaps negatively impact students who lack access to technology, indicating that institutions ought to offer computer labs, mobile-friendly content, and devices lending to guarantee fair learning opportunities.

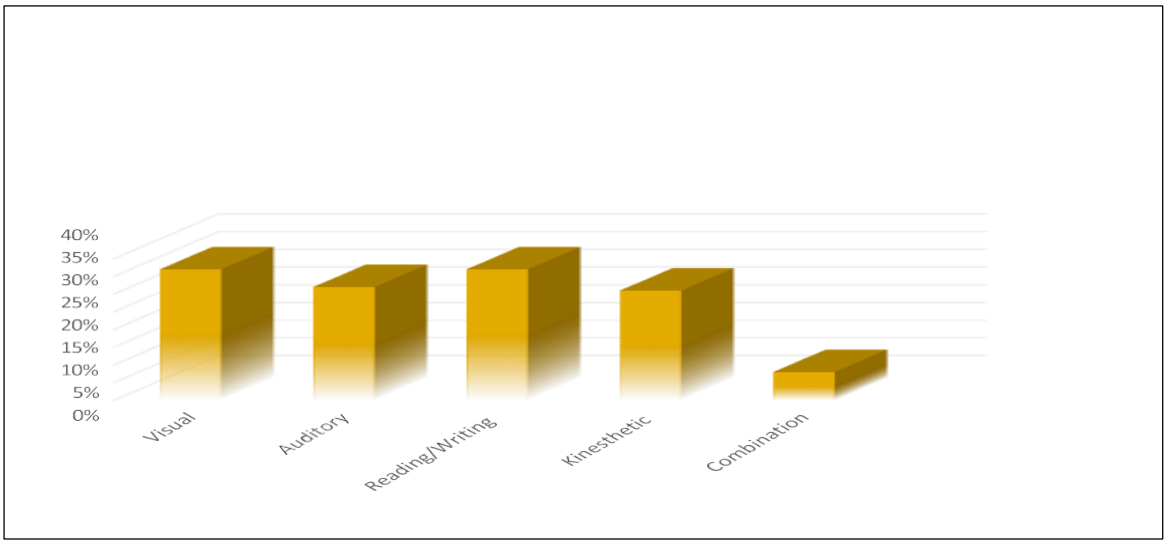
6.2. Do you have reliable internet access at home?



Graph 6.2: Students' Access to Reliable Internet at Home.

Based on **graph (6.2)**, 96% of students had a reliable internet connection at home, whereas (4%) lacked one. This shows that most students are able to utilize Moodle, though the institution needs to address device-related challenges for equitable access.

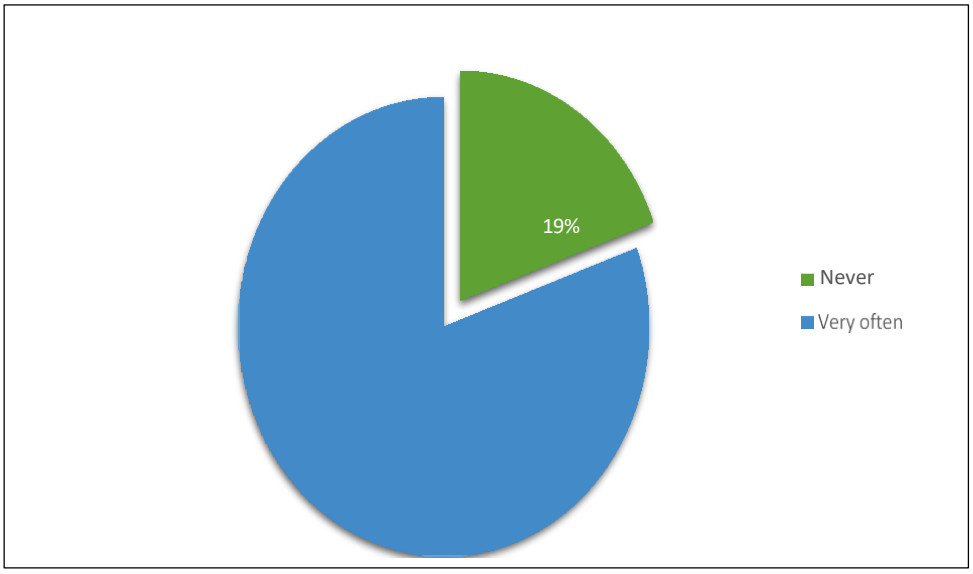
Q 7. Preferred Learning Style



Graph 7: Preferred Learning Style.

From the result above, students showed equal preference for visual and reading/writing styles at (37%) followed by auditory (32%) and kinesthetic (31%). A smaller percentage preferred a combination of varied learning styles (8%). This may reflect the significance of providing a range of content types on Moodle since students with different learning styles gain advantages from multimedia and interactive tools.

Q 8. How often do you use the internet to practice and improve your English skills outside Moodle?



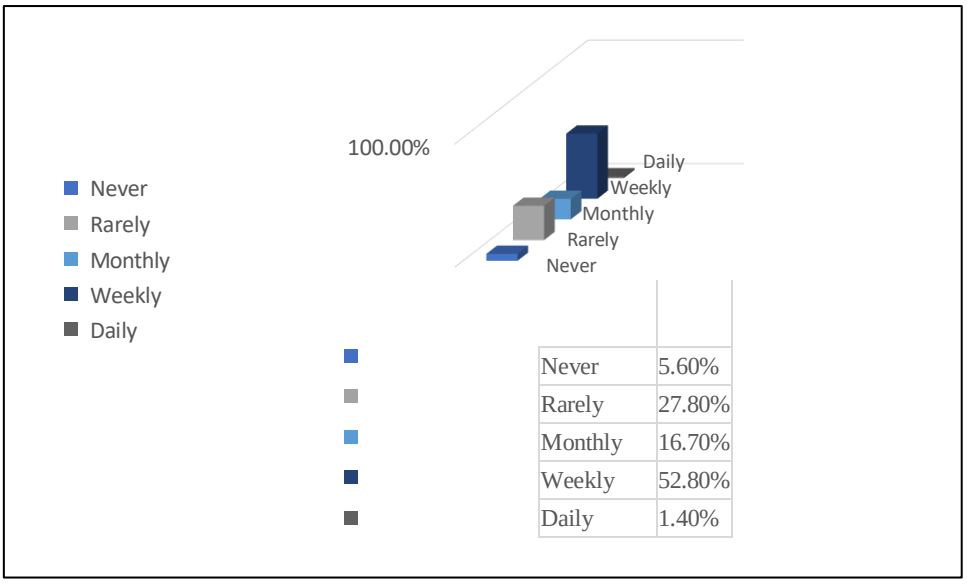
Graph 8: Internet Use for Improving English Outside Moodle.

As shown in the graph above, students indicated the frequency of their internet usage for English practice outside of Moodle by using a five-point Linkert scale (1=never; 5=very often). The result reveals that the majority of participants 81% selected 5= very often. However; The 19% who never use resources (rating 1) who may be unmotivated, or may encounter barriers to access. This suggests that Moodle could be more efficient if linked with online tools students already use.

Section 2: Moodle Usage and Technical Experience.

Q 9. How frequently do you access Moodle?

In this question, students were asked how frequently they access Moodle. The data showed that a majority of respondents (52.80%) reported using the platform on a weekly basis. A smaller percentage (14%) reported daily access, while 16.70% stated they use Moodle monthly. However, a significant 27.80% confessed they rarely use the platform, and 5.60% stated that they never access it.

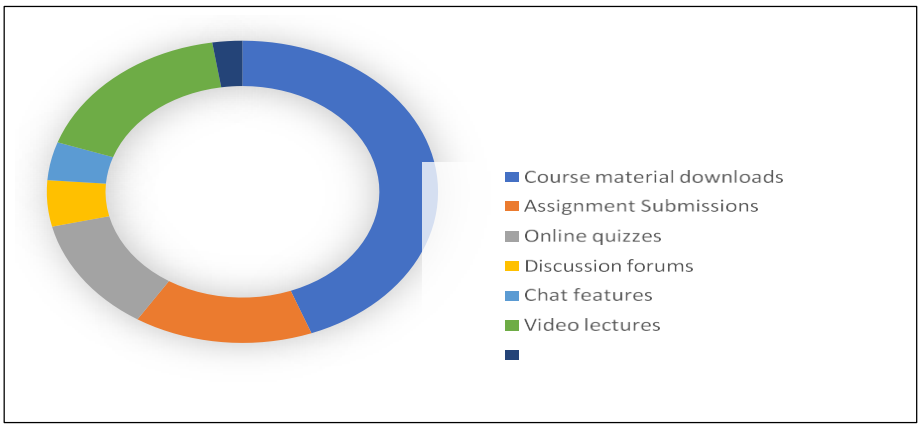


Graph 9: Frequency of Moodle Access.

The data indicates that Moodle act as an additional course resource instead of a primary learning platform. The reduced frequency of daily engagement suggests prospects to improve features for consistent interaction, while the infrequent/nonusers underscore possible obstacles that likely require further investigations.

Q10. Which Moodle features do you use?

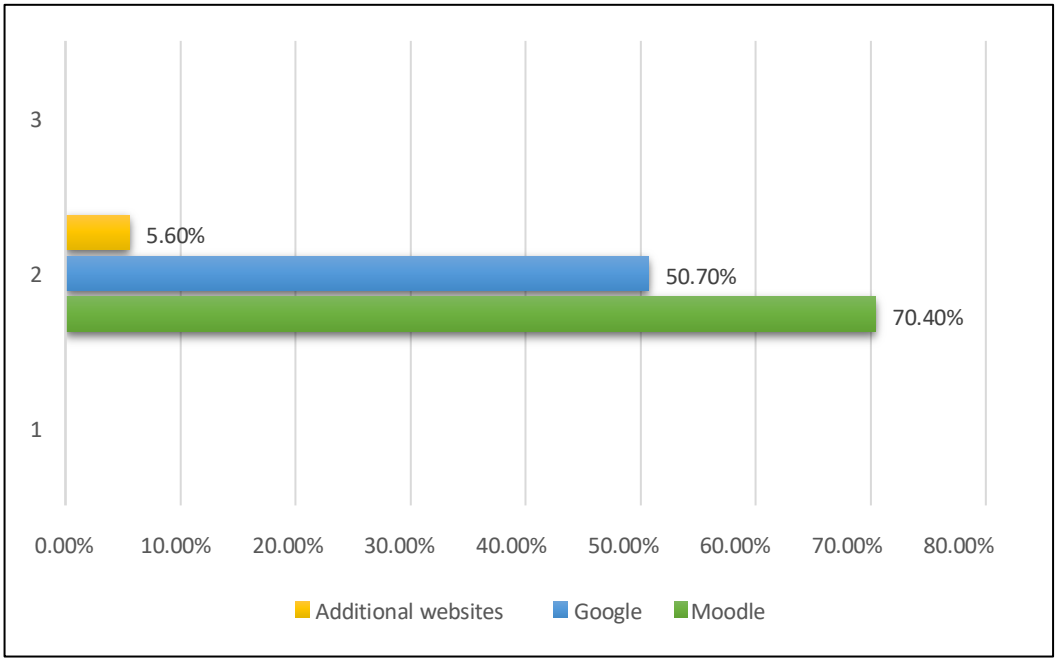
The majority of students (77.10%) indicated that their primary use of Moodle is for downloading course materials. Additional features such as watching video lectures (30%), submitting assignments (25.70%), and taking quizzes (21.4%) were utilized less frequently. Fewer than 10% of students participate in interactive features such as forums and chat



Graph 10: Features Used on Moodle.

These findings indicate that Moodle is mainly seen as a tool for accessing content rather than for communication or collaboration. The limited utilization of interactive tools suggests either a lack of awareness, training, or support from instructors.

Q 11. Which websites do you use most frequently to download materials related to your studies?

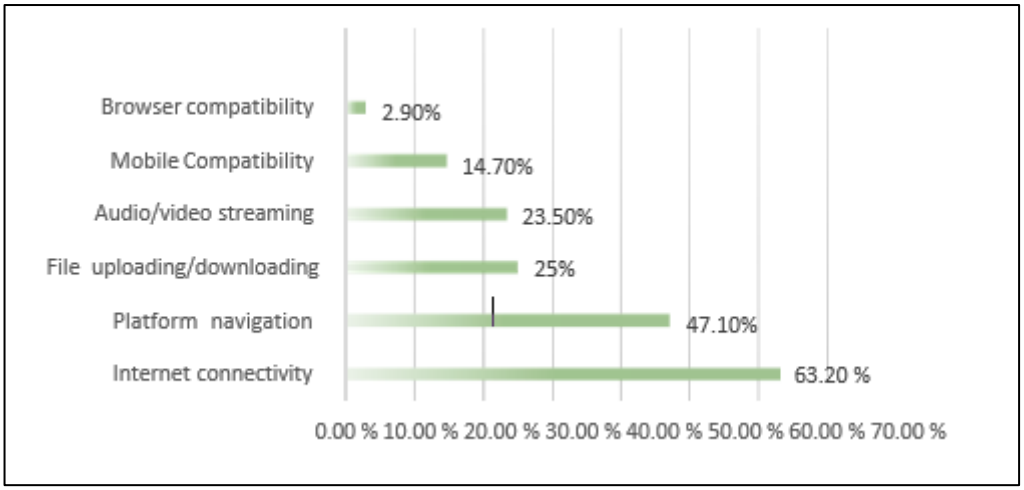


Graph 11: Websites Most Used for Downloading Study Materials.

The graph above reveals that, 70.40% of students indicated that they downloaded academic materials using Moodle, while 50.70% mentioned using Google. A smaller percentage (5.60%), referred to additional websites. These suggest that although Moodle serves as the official platform for course materials, students often look for extra sources on Google. This might imply that Moodle content is limited or outdated leading students to seek diverse resources.

Q 12. Technical Challenges (Rate severity: 1 = Not an issue to 5 = Major issues)

This graph shows that the primary problem encountered by students was internet connectivity (63.20%), followed by platform navigation (47.10%). Other concerns involved difficulties with uploading/downloading files at 25% and trouble with streaming audio or video at 23.50%. Mobile compatibility 14.70%, finally browser compatibility 2.90%.



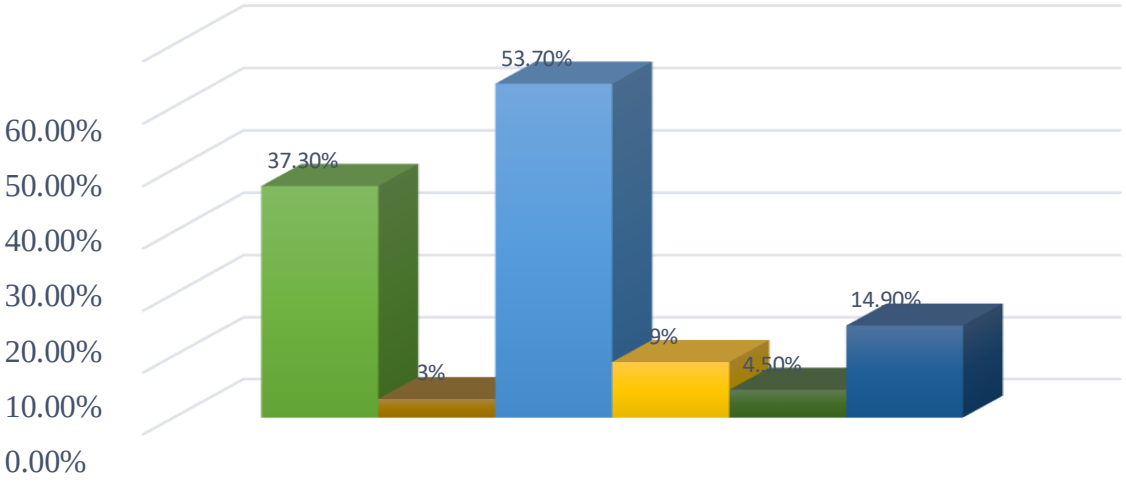
Graph 12:Technical Challenges.

The results confirm that the platform limitations as well as internet quality affects student engagement with Moodle. These problems may lead to preference for passive Moodle use over interactive use.

Section 3: Learning Impact and Engagement

Q 13. Rate your agreement (1 = Strongly Disagree to 5 = Strongly Agree).

Students were requested to evaluate their agreement with six statements about Moodle's effectiveness in learning, employing a five-point Linkert scale (1=Strongly disagree to 5=Strongly agree). A total of 67 responses were collected. Findings showed 53. 7% agreed that Moodle made accessing materials easy, 37. 3% felt it aided effective learning, and only 14. 9% noted improvements in time management. Smaller percentages indicated it promoted active participation (9. 0%) and online discussions (4. 5%). Preference for Moodle over other platforms was lowest, with only 3. 0% in agreement.

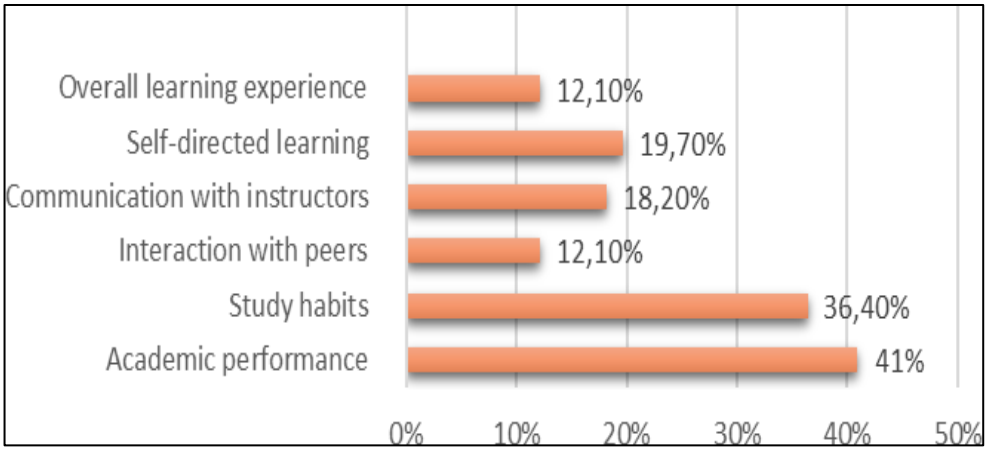


Graph 13: Students' Agreement.

These results indicate that Moodle is primarily viewed as an efficient means of accessing learning materials rather than as a tool for interaction or motivation.

Q 14. How has Moodle impacted your: Academic performance/ Study habits/Interaction with peers/Communication with instructors/Self-directed learning/Overall learning experience**?** (Rate impact: 1 = Very Negative to 5 = Very Positive)

In this question, most students were requested to evaluate the Impact of Moodle on several aspects of their experience by using a five-point Likert scale ranging from 1 (very negative) to 5 (very positive). Among 66 respondents, 41% felt it positively affected their academic performance, while 36.40% noticed better study habits. In contrast, only 12.10% reported a positive impact on their interaction with peers, and 18.20%on communication with instructors. Additionally, 19.70% of students reported that Moodle improved their self-directed learning, and 12.10% recognized a positive impact on their overall learning experience.

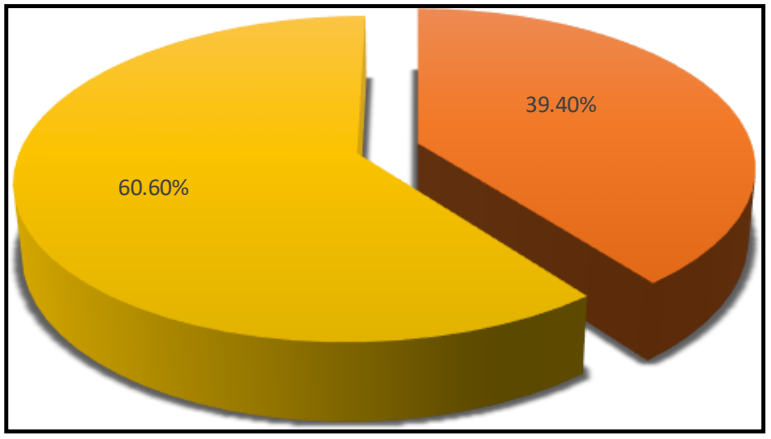


Graph 14: Moodle's Impact on Students.

The results indicate that Moodle has been beneficial for students' academic performance and studying. However, the lowest percentage in peer interaction and communication with instructors shows that Moodle's impact on collaborative learning is limited, which suggest there is a need for more interactive features.

Q 15. How often do you engage with Moodle's interactive features (chats, forums, quizzes, feedback tools)?

Students were asked to specify how often they engage with Moodle's interactive features, using a five -point Likert scale from 1 (never) to 5 (very often).

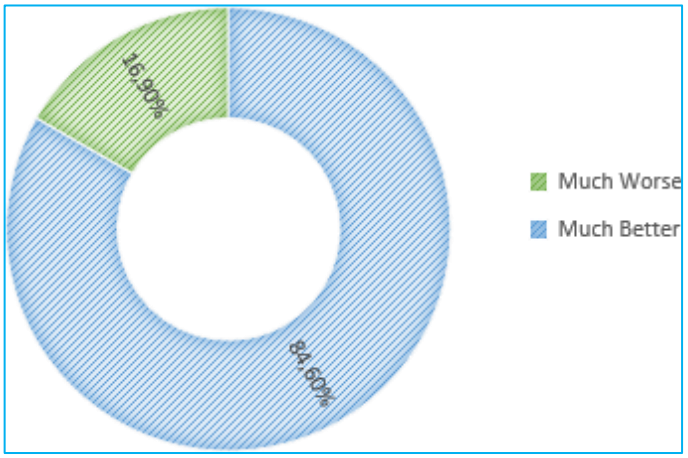


Graph 15: Frequency of Student Engagement With Moodle's Interactive Features.

The results above showed that 60.60% of students reported using these features "very often," whereas 39.40% claimed they "never" use them. The high percentage of students who regularly use Moodle's interactive tools shows that the platform supports active learning for many. However, the notable number of students who never engage with these tools points to a gap that must be addressed.

Q 16. How does Moodle compared to other online learning platforms you have used?

In this question, we asked students to compare Moodle with other online learning they had used before, utilizing a five-point scale.



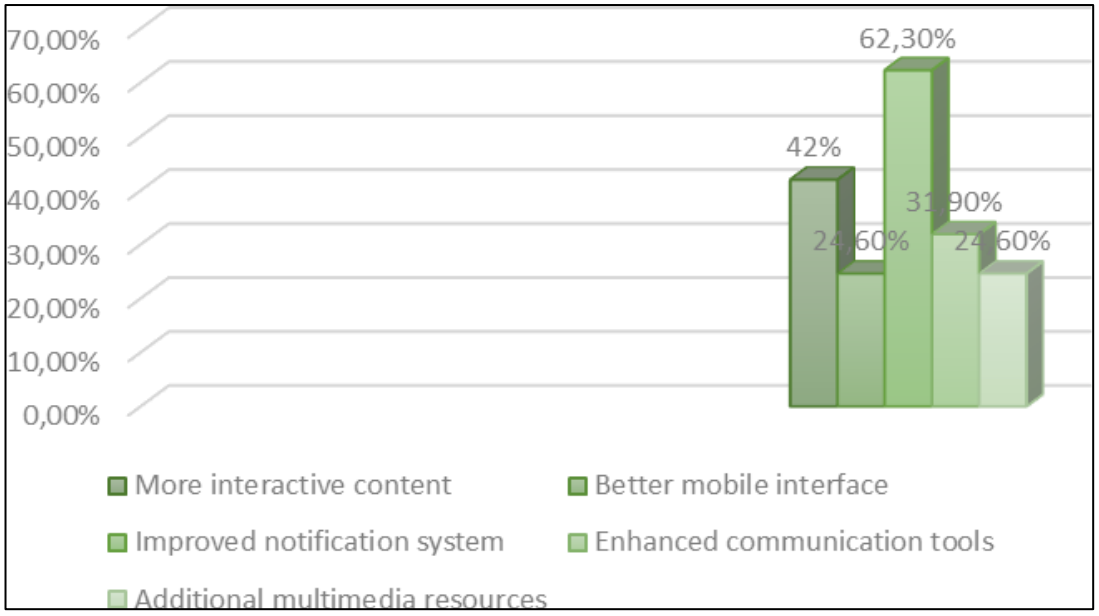
Graph *16: Students' Perceptions of Moodle Compared to Other Online Learning Platforms.*

The findings indicated that 84.60% rated Moodle as "much better, "while 16.90% considered it, "much worse." The results, hence, demonstrate a strong satisfaction among students with Moodle, particularly in accessing course materials. The other students' dissatisfaction could be an outcome of the limited use of the interactive pedagogical tools which have a significant role in motivating students.

Section 4: Platform Improvement & Future Outlook

Q 17. Which improvements would most benefit your learning experience?

In this question, students ranked five possible improvements to Moodle for better learning experience. As seen in the graph below, out of 69 responses, 62,30% selected the improvements of notification system as the most critical enhancement. 42% rated the incorporation of more interactive content as very important, whereas 31.90% emphasized the need for enhanced communication tools. Moreover, 24.60% of respondents identified enhanced mobile interface design and additional multimedia resources as a key advancement.



Graph 17: Key Improvements to Enhance Students' Learning Experience.

These results clearly demonstrate that communication features are the most significant area for improvements, with the notification system being a top priority.

Q 18. What specific features would you like added to Moodle? (Open-ended)

Theme	Description	Examples from Students' Answers	Analysis and discussion
Notifications and Reminders	Students highlighted the importance of receiving prompt notifications when new lessons, assignments, quizzes, or announcements are uploaded to Moodle.	"It would be great if the system sent notifications when assignments or quizzes are posted so we don't forget." "Notifications of any new lessons or announcement." "Reminder notifications when teachers upload new content."	These responses emphasize students for better organizational support. Real time notification, for example would allow for better time management.

Direct communication with teachers	Numerous students expressed the need for simpler, faster direct communication with teachers without needing for external tools like emails.	"Communicating with professors on the same platform without resorting to emails." "Having a live chat between students and instructors would make it easier for us to ask questions quickly." "Direct messages with our teachers would improve the platform a lot."	The demand for direct messages indicates students need for immediate feedback and access to academic support. This shows that Moodle should foster more interactive and responsive learning environments.
Interactive contentand analysis	Students asked for more dynamic and engaging resources such as video session, quizzes, or experiences, and social media-style discussion boards.	"I suggest adding VR because it will provide interactive learning elements that will make the content more realistic and easier to understand." "I hope they add a library to Moodle with videos and interactive activities that help us understand the topics more easily." "Videos, quiz combo, tools, real-time chats and social media- style discussion board."	Students are pursuing a change from static to dynamic interactive learning methods. This reflects a broader expectancy for interactive and multimedia-based educational experiences that support deeper learning and motivation.

Table 5: Students Suggestion for New Features in Moodle.

Q 19. What motivates/demotivates you when using Moodle? (Open-ended)

Themes	Description	Examples from students' responses	Analysis and discussion
Positive aspects of Moodle	Features and circumstances that boost students' motivation, such as flexibility, accessibility and well-structured course material.	- "All lessons are vailable with all details, without expectation." - "The flexible use and the ability to access the materials from any device." - "Downloadable content is helpful." - "Moodle puts everything in one place, lectures, assignments … helps me manage my time.	The responses show that Moodle excels due to its structure, consistent access to learning resources and flexibility across various devices. These factors boost students' motivation, allowing the learning process to be easier and more manageable.
Obstacles and Annoyances with Moodle	Challenges that prevent students' motivation, including poor technical issues, internet access problems, obsolete platform design and lack of engaging features.	- "Internet access issues, the platform does not work in the weekends." - "The design looks ugly." - "I automatically log out after a few minutes." "Lack of interaction, the passive learning that it contains just walls of text and PDF upload."	The responses show that students' frustrations primary revolve around Technical obstacles (slow speed, login problems). Enhancement of the platform's reliability, ease of use, and inclusion of interactive learning activities would greatly raise usage levels and satisfaction.

Table 5:The Motivation and Obstacles in the Moodle User Experience

Q 20. Do you expect Moodle to maintain its position as a leading e-learning tool in the next 5 years, or will technology provide better alternatives? Why? (open-ended)

Theme	Description	Examples from students 'responses	Analysis and discussion
Moodle needs continue improvements	Numerous students believe that Moodle can sustain its function if it modernizes, and integrates more engaging, user-friendly interfaces.	- "Moodle can stay helpful if it becomes more interactive engaging And learner centered." - "Moodle can stay a top e-learning tool if it keeps improving … but it does not keep up With newer tools, it might fall behind."	This theme showcases hopeful perspective: students appreciate Moodle's possibilities, yet they emphasize the adaptability and user experience to be essential. They underline frequent updates, especially on interactivity and the usability.
Competition from other tools and AI	Certain students expect that alternative tools will replace Moodle because they believe to be more intuitive and smarter (AI Integration and ease of use).	- "Although Moodle remains powerful, its continue supremacy depends on the adoption of AI features." - "Google classroom and Microsoft Teams may pose serious competition."	These answers show students' recognition of worldwide affaires and resources that provide user-friendly interface powered by AI. This suggests that students increasingly expect intelligent learning systems that better match their preferences.

Moodle is effective but Somewhat unattractive	A portion of students consider Moodle as useful, but not attractive or dull regarding content delivery and design	- "It is just a platform that contains less- "After the exam, no one will use it." - "There is nothing interesting or attractive to make it a special application.	This shows discontent with Moodle's static content and absence of features that inspire regular use apart from just mandatory course tasks. Their feedback implies that the interface and course structure of Moodle need to be updated to maintain engagement over the semester.

Table 6:The Future of Moodle's Dominance With the Evolution of E-learning Alternatives.

1.2 Teachers' interview

1.2.1 Interviews description

The faculty interviews were held with four teachers from the English Department at Bouira University to obtain detailed insights into their experiences and views regarding the Moodle platform. The interviews were semi structured, with a combination of open-ended and guided questioning that invited participants to elaborate on their opinions. The questions covered a range of themes, including professional background, pedagogical implementation, technological challenges, student engagement strategies, assessment practices, and reflective analysis on the effectiveness of Moodle. Participants varied in their teaching experience and familiarity with Moodle, which allowed for a diverse range of perspectives. The interviews uncovered both shared trends and unique differences in Moodle usage, highlighting varying degrees of technical proficiency and pedagogical adaptation. The interview data was coded thematically and analyzed to identify general patterns, recurring challenges, and future recommendations to improve the integration of Moodle into language teaching. The results provide a more nuanced understanding of the institutional and practical factors influencing the use of eLearning at the department level.

1.2.1.1 Analysis

Technology adoption	- Most teachers have been using Moodle since 2019-2020 - Varying levels of formal training and technical proficiency Primarily use as a supplementary teaching tool
Teaching methods	- blended learning approach - Interactive content creation - Multimedia integration - Use of: Quizzes/Discussion forums/Collaborative projects/Self-paced learning modules.
Challenges encountered	1. Technical Issues: -Slow platform performance -Connectivity problems -Complex interface -Browser compatibility 2. Engagement Challenges: -Limited student interaction online -Lack of non-verbal communication cues -Difficulty maintaining student participation
Future expectations	- Moodle is likely to remain the primary e- learning platform -Potential improvements needed: -Better interface -More interactive tools -AI integration -Enhanced multimedia capabilities
Recommendations	1.Investin comprehensive training 2.Develop clear pedagogical guidelines 3.Ensure robust technical support 4. Encourage innovative teaching approaches 5. Maintain a flexible, student- centered approach

Table 7: Interview Analysis.

The investigation into Moodle usage at Bouira University reveals a nuanced landscape of digital learning implementation that reflects both technological potential and significant institutional challenges. While faculty have increasingly adopted the platform since 2019-2020, their engagement remains predominantly supplementary rather than transformative. The research highlights a critical tension between technological aspiration and practical execution.

The findings demonstrate that while teachers are attempting to integrate interactive and multimedia elements into their pedagogical approach, they are simultaneously constrained by substantial infrastructural limitations. The technical challenges—including slow platform performance, connectivity issues, and complex interface design—fundamentally undermine the potential for seamless digital learning experiences.

Moreover, the engagement challenges expose deeper pedagogical limitations. The reported difficulties in maintaining student participation and the absence of non-verbal communication cues suggest that digital platforms cannot simply replicate traditional classroom dynamics. This underscores the need for sophisticated, intentional design of online learning environments that go beyond mere content transmission.

The recommendations for improvement—focusing on continuous professional development, enhanced technical infrastructure, and standardized guidelines—indicate an institutional recognition of these systemic challenges. However, the critical insight lies in understanding that technological integration is not just about platform adoption, but about fundamentally reimagining educational interaction.

The future outlook suggests cautious optimism, with potential developments like AI integration and improved multimedia capabilities. However, the success of such innovations will depend critically on a holistic approach that balances technological capability with pedagogical innovation and robust institutional support.

Conclusion

To conclude, this chapter shows a powerful direct relationship between students' and teachers' perspectives and the Moodle platform at Bouira University. The interpretation of the results obtained, focused explicitly on aiming at the primary characteristics of the research questions. The platform's effectiveness in promoting digital learning was assessed through both positive and negative outcomes. Although Moodle offers flexible content accessibility, issues with engagement and interactivity persist. Technical and infrastructure problems still pose considerable obstacles to its adoption.

General Conclusion

General Conclusion

Closing the study, this section offers an in-depth overview of the research findings, going beyond basic theoretical perspectives and proceeding to the results of practical application. Based on the findings, the study validates the hypothesis that says both teachers and students harbored divergent attitudes regarding Moodle's pedagogical effectiveness, mainly affected by minimal interaction with its engaging features, technical issues, and insufficient institutional assistance.

The study employed questionnaires and semi-structured interviews for data collection in their investigation of attitudes. The first questionnaire was distributed to the students at the English department of Bouira University, aiming to capture learners' utilization of Moodle platform, their perception of it, the challenges they face, and suggesting improvements. The second instrument, a semi-structured interview, was conducted with appointed teachers of varied experience levels. It examined their views on Moodle's pedagogical implications, ease of use, and their perspectives towards digital integration in teaching.

The results indicated that students conceptualize Moodle mostly as a resource of accessing course materials, yet they maintain an overall negative perception regarding its pedagogical efficacy, citing limited interactivity, inadequate communication features and a deficiency in engaging content, with most stating seldom use of tools such as forums, quizzes, and feedback options. Moreover, many students were dissatisfied with the absence of real-time engagement and minimal involvement from teachers on the platform, pointing irregular updates (particularly regarding mobile accessibility, structured course pages, and notification system), insufficient feedback, and disorganized content delivery. Their complaints did not dismiss Moodle as an LMS entirely, as they were disappointed with how it was used, not with its overall potential. They called for a more dynamic, user-friendly, and stimulating learning atmosphere.

Conversely, educators exhibit a predominantly positive yet guarded perspective regarding Moodle. The majority mostly used the system for recognizing its value in structuring content and facilitating blended learning. A handful of educators integrated forums, quizzes, and audio assignments, but still underutilized the features of Moodle that encourage student interaction and engagement. Some of these challenges were due to connectivity problems and also the complexity and individualized nature of technical training. While eager to embrace Moodle, numerous teachers stressed to properly maximize its full instructional potential, more focused assistance, better user interface design, and regular training are required.

This dissimilarity reflects students' preferences for engaging learning experiences, while teachers use Moodle solely as a tool for content delivery instead of for active teaching purposes.

User attitudes were heavily influenced by cultural and institutional context. In the Algerian educational system, a strong emphasis on the hierarchy and a tendency to avoid uncertainty were evident in students preferring teacher-guided instruction and teacher sticking to traditional teaching methods. Furthermore, support from institutions, effective training, and dependable infrastructure were identified as an essential factor affecting how user accept and use the technology.

Limitations of The Study

Notwithstanding significant insights derived from this research, there are several contextual, ethical, and analytical limitations needed to be acknowledged, as they were likely to have affected the scope and validity of results.

First, a notable limitation of the study lay in its narrow focus on a single department within one university. Although this enabled a thorough analysis of Moodle's implementation in a particular context, the outcomes lacked comprehensive applicability to alternative institutions or academic fields. Including multiple departments or universities in the study might have yielded a more inclusive understanding of Moodle's integration within Algerian higher education.

Second, the research relied on self-reported data obtained from questionnaires and semi-structured interviews, which may have resulted in certain levels of response bias. It was possible that participants responded the questions in ways they believed were expected rather than reflecting their true experience. Furthermore, the data collection overlapped with exam times and other academic commitments, which might have restricted the availability of some respondents or limited the depth of their responses. These conditions may have slightly influenced on the data scope and diversity.

Third, the research adopted a cross-sectional design, indicating that data were gathered at a single point of time. This method provided a picture of user perception, but it failed to consider how attitudes might have evolved over time with greater platform exposure or modifications institutional policies. In order to capture such dynamic shifts, a longitudinal method would have been more successful.

Contextually, the research process was significantly impacted by insufficient access to current academic resources and digital tools. The scarcity of books, journal articles and online databases hindered the search for credible enough references, which in turn influenced the scope of the literature review and the researcher's capacity to establish a wider academic context.

In sum, despite the study provided insightful information about the teachers and students

perspectives on Moodle platform, it was important to take these limitations into consideration when analyzing the findings and assessing their broader relevance.

Suggestions for Future Research

Any investigation paves the way for additional exploration. This research reveals multiple implications for future study that might deepen our comprehension of how Moodle is adopted and optimized in Algerian higher education and improve its institutional effectiveness.

Firstly, it is recommended that future studies utilize a longitudinal design to examine the evolution of user's attitudes and interactions with Moodle as time progresses. Researchers may adopt this strategy to evaluate how the platform is used by both teachers and students in light of institutional changes, cumulative experience, or shifting digital policies.

Secondly, regional, institutional, or demographic disparities in Moodle uptake and perception would be assisted by comparative studies among various Algerian universities. Such research might provide a more comprehensive insight into how perspectives towards e-learning platforms are determined by digital literacy, administrative backing, and infrastructure.

Thirdly, in-depth exploration of cultural and institutional factors may elucidate how Algeria's educational culture impacts the implementation of Moodle. For instance, research could focus on how higher power distance shapes students' engagement in online forums or how collective learning inclinations correlate with collaborative design functions on Moodle. Additional qualitative studies could examine how teachers contribute to or impede digital engagement in this cultural context.

Fourthly, real-world classroom research might assess particular Moodle upgrades such as enhanced notifications or interactive features on academic achievement and student participation. Evaluating these changes within real teaching conditions would facilitate the conversion of research-backed recommendations into practical, context-sensitive implementations.

Fifthly, the possible integration of AI, VR, and other new technologies with Moodle in Algeria is worth of exploring as they transform global e-learning. While hybrid models that merge Moodle with mobile-friendly technologies may enhance motivation and accessibility, research might evaluate if VR-enhanced language labs or AI-driven personalization solve existing issues, such as passive engagement with content.

Lastly, to fill in the gaps in pedagogical and technical support, upcoming studies should evaluate certain approaches to teacher preparation and training. The best methods for improving Moodle use may be found by comparing online lessons, peer mentorship and seminars. These research efforts would ultimately assist teachers in maximizing the use of the platform and foster creativity in instruction.

Collectively, these study directions for future research would enhance the domain of e-learning research in Algeria while also promoting the creation of more user-friendly and efficient digital learning environments in higher education.

Concluding remarks

By underscoring the vital function that user perspective performs in the effective adoption of Learning Management Systems like Moodle, this current investigation contributes to the growing body of inquiry on e-learning in Algeria. Moodle provides substantial opportunities for use as a virtual education resource. However, its full effectiveness relies on overcoming pedagogical, cultural, and technological applications. Moving forward, educational organisms particularly Bouira University could increase the value of their support to the Moodle platform by bolstering training for teachers, and encouraging more interactive and learner-centered uses of the platform. By accomplishing this, Moodle will improve its ability to keep the evolving demands of instructors and students in the Algeria's higher education system.

To conclude, the research calls for ongoing partnership between instructors, administrators, and decision- makers to develop a diverse and dynamic learning environment. Continuous study and innovation are vital to contribute to the evolution of digital learning that reflects the worldwide trends and Algeria's educational requirement

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Appendices

Appendices

Appendix One: Students' Survey

https://docs.google.com/forms/d/e/1FAIpQLSeqlrXTXbbNiJ5OxKHEarMl66gzZ8GyfeNr5Cz7YbVkIh-ihg/viewform

Introduction

Thank you for being part of this significant research study. This study aims to explore both teachers' and learners' experiences and perspectives regarding the use of Moodle in Bouira university's English Department. As technology continues to shape modern education, it is crucial to understand how Moodle influences teaching practices, student engagement and academic performance.

Your input will uncover the advantages of Moodle as a learning platform as well as identifying the obstacles that might hinder its maximum effectiveness. By sharing your honest responses, you will contribute to a deeper understanding of digital education in higher learning by engaging in discussion on how technology can be leveraged to create more dynamic and engaging learning environments. There are no right or wrong answers, and all responses are valuable.

This survey will take approximately **15-20 minutes** to complete

Informed Consent

Dear Student, you are invited to participate in a research study exploring the use of Moodle in Bouira University's English Department. This survey will take approximately 15-20 minutes to complete.

Purpose: To understand how Moodle influences teaching practices, student engagement, and academic performance.

Confidentiality: Your responses will remain anonymous and confidential. Data will only be used for research purposes.

Voluntary Participation: You may withdraw from this survey at any time without penalty.

Contact: For questions about this research, please contact: Dr. Sara Djadi: s.djadi@univ-bouira.dz

Cylia Boumekouaze: boumekouezcylia20@gmail.com

Mouna Salmi: mounasalmi02@gmail.com

Section 1: Demographic Information and Learning Background

This section aims to gather basic information about your academic background, English proficiency, and experience with online learning to better understand your interaction with Moodle

1. Gender:
   - Male ☐
   - Female ☐
   - Prefer not to say ☐

2. Academic Level:
   - 1st year ☐
   - 2nd year ☐
   - 3rd year ☐
   - Master 1 ☐
   - Master 2 ☐

3. Self-assessed English Proficiency:
   - Beginner ☐
   - Intermediate ☐
   - Advanced ☐

4. Was studying English
   - Your personal decision ☐
   - your parent's decision ☐
   - Influence of your environment ☐

5. Previous Online Learning Experience:
   - None ☐
   - Less than 1 year ☐
   - 1-2 years ☐

- More than 2 years ☐

6. Access to Technology and internet at Home:

o Do you have access to the following devices? (select all that apply)

- Personal computer/laptop ☐
- Smartphone ☐
- Reliable internet connection ☐
- Shared computer access ☐
- None of the above ☐

o Do you have reliable internet access at home?

Yes ☐ No ☐

o If no, where do you usually access to internet?

- University/library ☐
- Public Wi-Fi ☐
- Others ☐(please specify) _____

7. Preferred Learning Style:

- Visual ☐
- Auditory ☐
- Reading/Writing ☐
- Kinesthetic ☐
- Combination ☐(please specify) _____

8. How often do you use the internet to practice and improve your English skills outside Moodle?
Scale: 1 = Never, 5 = Very Often

Section 2: Moodle Usage and Technical Experience

This section explores your usage of Moodle, your experience with its features, and the technical challenges you face.

9. How frequently do you access Moodle?

1 = Never, 2 = Rarely, 3 = Monthly, 4 = Weekly, 5 = Daily

10. Which Moodle features do you use? (Rate frequency: 1 = Never to 5 = Very Often)
    - Course material downloads ☐
    - Assignment submissions ☐
    - Online quizzes ☐
    - Discussion forums ☐
    - Chat features ☐
    - Video lectures ☐
    - Calendar/scheduling tools ☐

11. Which websites do you use most frequently to download materials related to your studies?
    - Google ☐
    - Moodle ☐
- Additional websites ☐(please specify)

12. Technical Challenges (Rate severity: 1 = Not an issue to 5 = Major issue)
    - Internet connectivity ☐
    - Platform navigation ☐
    - File uploading/downloading ☐
    - Audio/video streaming ☐
    - Mobile compatibility ☐
    - Browser compatibility ☐

Section 3: Learning Impact and Engagement

This section aims to measure the impact of Moodle on students learning outcomes and engagement.

13. Rate your agreement (1 = Strongly Disagree to 5 = Strongly Agree):
    - Moodle helps me learn more effectively ☐
    - I can easily access course materials ☐
    - The platform encourages active participation ☐
    - Online discussions enhance my understanding ☐

- Moodle improves my time management ☐
- I prefer Moodle to other learning platforms ☐

14. How has Moodle impacted your:
    (Rate impact: 1 = Very Negative to 5 = Very Positive)

- Academic performance ☐
- Study habits ☐
- Interaction with peers ☐
- Communication with instructors ☐
- Self-directed learning ☐
- Overall learning experience ☐

15. How often do you engage with Moodle's interactive features (chats, forums, quizzes, feedback tools)?
    Scale: 1 = Never, 5 = Very Often

16. How does Moodle compared to other online learning platforms you have used?
    Scale: 1 = Much Worse, 5 = Much Better

Section 4: Platform Improvement & Future Outlook

This section aims to gather your feedback on preferred improvements, suggested additional features, and how Moodle has influenced your motivation

17. Which improvements would most benefit your learning experience? (Rank from 1-5, with 1 being most important)

- More interactive content ☐
- Better mobile interface ☐
- Improved notification system ☐
- Enhanced communication tools ☐
- Additional multimedia resources ☐

18. What specific features would you like added to Moodle? (open-ended)
19. What motivates/demotivates you when using Moodle? (open-ended)
20. Do you expect Moodle to maintain its position as a leading e-learning tool in the next 5 years, or will technology provide better alternatives? Why? (open-ended)

Appendix two: Faculty Interview Guide

As technology continues to transform education, the e-learning platforms like Moodle have become an integral aspect of teaching. In the English Department at Bouira University, Moodle was particularly significant in the context of COVID-19 when courses shifted from traditional classrooms to an online learning environment. The purpose of this interview is to gain insights into your attitudes towards Moodle, your experiences with the platform, any challenges you've encountered, and its overall impact on teaching and student involvement. Furthermore, it seeks to assess how effective Moodle is and gather suggestions for improvements that could enhance the learning experience.

Your responses will be entirely private and your feedback is greatly appreciated in shaping the future of e-learning at Bouira University.

Thank you for your time and valuable contribution

Section 1: Professional Background and Experience

1. How long have you been teaching with Moodle?
2. What formal training have you received in using Moodle?
3. How has your teaching methodology evolved with Moodle?

o Could you provide specific examples of changes in your approach?

Section 2: Pedagogical Implementation

4. How do you integrate Moodle into your teaching strategy?

o Could you elaborate on specific activities or techniques?

5. Which assessment methods have been most effective through Moodle?

o Why do you find these methods effective?

6. How do you maintain student engagement in the online environment?

o What strategies have worked best for fostering interaction?

7. How do you design your lessons using Moodle? Do you follow any specific teaching strategies?

o Could you provide examples of interactive activities you use?

Section 3: Technical and Administrative Aspects

8. What technical challenges have you encountered?
- How have you addressed these challenges?
9. How do you gather and implement student feedback?
10. What professional development would help you better utilize Moodle?
11. Does the university provide enough training or support for teachers to effectively use Moodle? Why or why not?

Section 4: Reflective Analysis

12. How has Moodle changed your:
- Teaching effectiveness (Could you give a concrete example?)
- Student interaction (Has it improved or hindered communication?)
- Assessment strategies (What adjustments have you made?)
- Course management (Do you find Moodle helpful in organizing your materials?)
13. How do you blend Moodle with face-to-face teaching? Do you find a hybrid approach more effective?
- How do you balance online and offline activities in your courses?
14. What recommendations would you give to colleagues new to Moodle?

Section 5: Future of Moodle in Language Learning

15. Do you think Moodle is suitable for language learning, which requires dynamic interaction, or does it need improvements?
- What specific features do you think should be enhanced?
16. If you had unlimited resources, how would you improve Moodle to better support interactive learning in English language teaching?
17. Over the next five years, will Moodle remain the main platform for e-learning, or will it be replaced by another tool? and Why?

Section 6: Final Thoughts and Recommendations

18. Do you rely on other educational platforms besides Moodle? If so, what are they and why?
19. Based on your experience, do you believe Moodle should be a mandatory component of the teaching process at the University of Bouira? And why?
20. What recommendations would you offer to teachers, students, or the university to optimize the use of Moodle?