

E-LEARNING LANGUAGE SYSTEM



UNIVERSITI TEKNIKAL MALAYSIA MELAKA

BORANG PENGESAHAN STATUS LAPORAN

JUDUL: [E-LEARNING LANGUAGE SYSTEM]

SESI PENGAJIAN: [2023 / 2024]

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E-LEARNING LANGUAGE SYSTEM

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This report is submitted in partial fulfillment of the requirements for the Bachelor of [Computer Science (Software Development)] with Honours.

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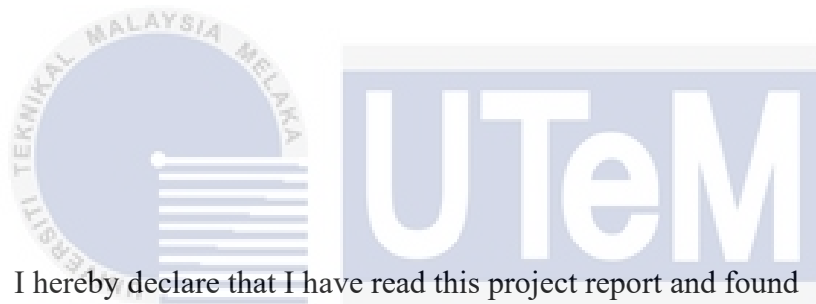
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DECLARATION

I hereby declare that this project report entitled
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I would like to dedicate this final year project to my supervisor Ts. Dr. Abdul Karim bin Mohamad for the continuous advise and support given throughout the completion of the project, for his patience to guide me until the end and to motivate me during the duration of this project. I appreciate all the help I have received from my supervisor. I would also like to dedicate this project to my beloved family. They have always stood by me and given me unwavering support morally, financially, and emotionally during my studies in university as well the continuous encouragement during the completion of this project. Lastly, I would like to mention my dear fellow friends who have always been encouraging and assist me in my studies and given me plenty of support.



AKNOWLEDGEMENTS

I am very thankful towards the people who have supported me throughout this journey to the completion of the project. I especially would like to thank my supervisor Ts. Dr. Abdul Karim bin Mohamad who has always given me guidance and motivation to complete the project.

I would also like to take this opportunity to show gratitude towards my fellow classmates and friends for they have always encourage and helped me along the way of completing this project. I feel blessed to have such wonderful classmates and friends in University Teknikal Malaysia Melaka.

I also would like express wholehearted gratitude towards my family for the continuous support they have given me. They have been there for me no matter what and that has helped me tremendously in encouraging me to complete this project.



ABSTRACT

The e-learning system is a technologically advanced platform that revolutionizes the education landscape by providing flexible and personalized learning experiences. Through the integration of multimedia elements, accessibility on various devices, personalized tracking and assessment, collaborative tools, and cost-effective solutions, this system empowers learners to access educational content anytime, anywhere, catering to their individual needs and preferences. By leveraging technology, the e-learning system opens new possibilities for the acquisition and dissemination of knowledge, paving the way for a

transformative future in education



ABSTRAK

Sistem e-pembelajaran ialah platform berteknologi maju yang merevolusikan landskap pendidikan dengan menyediakan pengalaman pembelajaran yang fleksibel dan diperibadikan. Melalui penyepaduan elemen multimedia, kebolehcapaian pada pelbagai peranti, penjejakan dan penilaian yang diperibadikan, alat kolaboratif, dan penyelesaian kos efektif, sistem ini memperkasakan pelajar untuk mengakses kandungan pendidikan pada bila-bila masa, di mana-mana sahaja, memenuhi keperluan dan pilihan individu mereka. Dengan memanfaatkan teknologi, sistem e-pembelajaran membuka kemungkinan baru untuk pemerolehan dan penyebaran pengetahuan, membuka jalan untuk masa depan yang transformatif dalam pendidikan

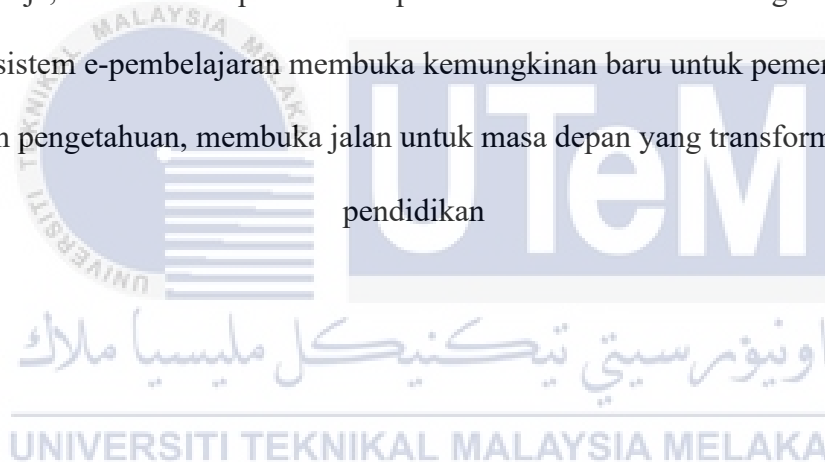


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CHAPTER 1: INTRODUCTION

1.1 Introduction

In the digital age, the accessibility and convenience of e-learning have revolutionized the way we acquire new skills and knowledge. When it comes to learning languages, the realm of online education has opened up endless possibilities, making it easier than ever to embark on a language learning journey. This article aims to explore the key components of an effective e-learning language website and highlight the strategies that can maximize learning outcomes for students.

An effective e-learning language website begins with a user-friendly interface that is intuitive and visually appealing. Students should be able to navigate through the platform effortlessly, finding the information and resources they need with ease. Clear categorization, logical organization of content, and a simple, responsive design are essential elements that contribute to a positive user experience.

A language learning website should offer a comprehensive curriculum that covers all aspects of language acquisition, including vocabulary, grammar, reading, writing, speaking, and listening. A well-structured curriculum ensures a progressive learning journey, starting from beginner levels and gradually advancing to more complex topics. The inclusion of real-life examples, dialogues, and culturally relevant content helps students connect with the language on a deeper level.

To captivate learners and foster an interactive learning experience, e-learning language websites should provide a wide range of engaging learning materials. These can include interactive exercises, multimedia resources (such as videos, audio recordings, and podcasts), flashcards, quizzes, and games. Incorporating elements of gamification can make the learning process enjoyable, motivating students to actively participate and track their progress.

Every learner is unique, with varying strengths, weaknesses, and preferred learning styles. An effective e-learning language website employs adaptive learning technologies to tailor the content and pace of instruction to individual students. Through pre-assessments and ongoing progress monitoring, the platform can dynamically adjust the learning path, offering personalized recommendations, targeted feedback, and additional resources to address specific areas of improvement.

Language learning is inherently social, and effective e-learning platforms should facilitate interaction and communication between students and instructors or among peers. Incorporating communication tools such as chatrooms, discussion forums, and video conferencing features allows learners to practice their speaking and writing skills, engage in collaborative activities, and receive valuable feedback from instructors and fellow learners. This fosters a sense of community and helps simulate real-world language use.

Creating a supportive learning environment is crucial for effective e-learning. Language learning websites should provide comprehensive support mechanisms, including clear instructions, tutorials, FAQs, and a responsive customer support system. Timely and constructive feedback from instructors is vital to guide students' progress and provide them with the necessary guidance and motivation to overcome challenges.

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In today's mobile-centric world, an effective e-learning language website should prioritize mobile accessibility. The platform should be optimized for mobile devices, allowing learners to access their courses and resources on-the-go. Mobile applications and responsive web design enable students to learn at their convenience, ensuring flexibility and seamless integration into their daily routines

1.2 Problem statements

- Ensuring that the e-learning experience is as effective as traditional face-to-face learning.

- The quality of e-learning content.
- E-learning has the potential to reach learners who might not have access to traditional learning opportunities.

1.3 Objectives

- To provide learners with personalized learning experiences that cater to their individual needs and preferences.
- To ensuring the quality of e-learning language content by providing learners with highquality, credible, and relevant educational materials.
- Start Providing learners with personalized learning experiences that cater to their individual needs and preferences.

1.4 Scope

There are three modules to be developed in the E-Learning Language System involving student, lecturer and admin. The user targeted to be the foreigner student and Utem lecturer who may need this application.

1.4.1 Student Module

Register, login, access educational materials, interact with instructors, complete assignments.

1.4.2 Lecturer Module

Login, provide educational materials, check student assignment, provide quiz.

1.4.3 Admin Module

Register, Login, maintenance of the e-learning platform, including technical support, data management, and user administration.

1.5 Project Significance

E-Language Learning, also known as electronic language learning or online language learning, refers to the process of acquiring language skills and knowledge through digital platforms and technologies. With the advancement of technology and the widespread availability of the internet, e-language learning has gained significant importance in education and personal development.

1.5.1 Accessibility and Flexibility:

Among the significance of e-language learning is accessibility and flexibility. Online language courses and platforms allow learners to access resources and participate in learning activities from anywhere, at any time. This eliminates geographical barriers and provides opportunities for individuals who may not have access to traditional language learning institutions. Learners can study at their own pace, fitting language learning into their busy schedules, making it highly convenient for working professionals, students, and individuals with diverse commitments.

1.5.2 Diverse Learning Materials:

E-language learning offers a vast array of learning materials, including interactive multimedia resources, online exercises, video tutorials, and virtual language communities. These diverse resources cater to different learning styles, allowing learners to engage with the language in various ways. Additionally, the availability of authentic language materials online exposes learners to real-life contexts and promotes cultural understanding, enhancing their language proficiency and cultural competence.

1.5.3 Personalized Learning Experience:

Digital platforms for language learning often incorporate adaptive technologies, artificial intelligence, and machine learning algorithms. These features enable personalized learning experiences tailored to individual learners' needs and abilities. Through assessments and data analysis, the system can identify areas of improvement and provide customized feedback, adaptive exercises, and learning paths. This personalized approach enhances the effectiveness of language learning by addressing learners' specific weaknesses and optimizing their progress.

1.5.4 Interactive Communication and Collaboration:

E-language learning platforms provide opportunities for learners to interact and collaborate with instructors, tutors, and fellow learners from around the world. Discussion forums, chat rooms, video conferences, and virtual language exchanges facilitate meaningful communication, cultural exchange, and collaborative learning experiences. These interactions foster a sense of community and motivation, as learners engage in authentic conversations and receive feedback from native speakers and language experts.

1.5.5 Cost-effectiveness:

Compared to traditional language learning methods, e-language learning often proves to be more cost-effective. Online language courses and resources tend to be more affordable or even free in some cases, eliminating the need for expensive textbooks or commuting to physical classrooms. Additionally, learners can save costs associated with travel, accommodation, and study materials, making language learning more accessible to a wider range of individuals.

1.5.6 Lifelong Learning and Continuous Improvement:

E-language learning encourages lifelong learning and continuous improvement by providing opportunities for learners to engage with the language beyond formal education. Learners can access resources, participate in language communities, and engage in self-study even after completing formal courses. This flexibility promotes long-term language acquisition and allows individuals to maintain and enhance their language skills throughout their lives.

The significance of e-language learning lies in its accessibility, flexibility, diverse learning materials, personalized learning experiences, interactive communication, cost-effectiveness, and promotion of lifelong learning. By harnessing the power of technology and the internet, e-language learning has revolutionized the way individuals acquire language skills, making language learning more inclusive, engaging, and convenient. As technology continues to evolve, e-language learning will play a vital role in meeting the global demand for language education and fostering intercultural understanding in an increasingly interconnected world.

1.6 Expected Outcome

The expected outcome from this project is to create a user-friendly and effective E-language learning system that enhances the learning experience for students. The system aims to provide a seamless and accessible platform for accessing educational content, engaging in interactive exercises, and receiving personalized feedback.

It should improve language proficiency. The e-learning language platform can provide learners with personalized learning experiences that cater to their individual needs and preferences, thereby improving their language proficiency.

It should contain interactive and engaging language learning: The e-learning language platform can provide learners with an interactive and engaging language learning experience.

It should provide a cost-effective and efficient language learning solution that eliminates the need for learners to travel to attend language classes or hire private tutors.

It should contain personalized language learning: The e-learning language platform can provide learners with personalized language learning experiences

1.7 Conclusion

The power of e-learning has transformed language education, making it more accessible, interactive, and flexible than ever before. By embracing user-friendly interfaces, comprehensive curricula, engaging learning materials, adaptive technologies, interactive communication tools, and supportive learning environments, e-learning language websites have the potential to unlock students' language learning potential and empower them to achieve fluency. With the continuous advancements in technology and pedagogical practices, the future of language learning holds boundless opportunities for learners worldwide.

CHAPTER 2: LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

This literature review provides a comprehensive analysis of the advancements, challenges, and future directions in the field of e-language learning. The review synthesizes relevant scholarly articles, research studies, and academic publications to shed light on the key developments, methodologies, and implications of e-language learning. By examining the current state of the field, this review aims to guide researchers, educators, and policymakers in understanding the opportunities and limitations associated with e-language learning and offers insights into potential avenues for further research. This section establishes the significance of e-language learning as an emerging field, highlighting the increasing demand for language learning in the digital age. It provides an overview of the aims, scope, and structure of the literature review.

2.2 Facts and finding

2.2.1 Advancements in E-Language Learning:

This section explores the advancements and innovations in e-language learning methodologies, tools, and platforms. It covers topics such as computer-assisted language learning (CALL), mobile language learning, virtual reality (VR), augmented reality (AR), gamification, and social media integration. The section analyses the impact of these advancements on learners' engagement, motivation, interactivity, and overall language proficiency.

2.2.2 Pedagogical Approaches in E-Language Learning:

This section focuses on the pedagogical approaches employed in e-language learning. It discusses the effectiveness of blended learning, flipped classrooms, task-based learning, and communicative approaches in enhancing language learning outcomes. It also examines the role of adaptive learning technologies, intelligent tutoring systems, and personalized learning in tailoring language instruction to individual learners' needs.

2.2.3 Challenges and Limitations:

This section identifies and discusses the challenges and limitations associated with e-language learning. It examines issues such as learner autonomy, digital divide, learner motivation and engagement, quality assurance, teacher training, and the need for appropriate assessment methods in the online environment. The section provides insights into the potential barriers that need to be addressed to ensure the success of e-language learning initiatives.

2.3 Learner-Centred Approaches and Social Interaction:

This section explores the role of learner-centred approaches and social interaction in e-language learning. It investigates the importance of fostering a collaborative and communicative learning environment through online discussion forums, chatbots, peer feedback, and telecollaboration. It also examines the impact of social presence, learner autonomy, and learner-teacher interaction on language learning outcomes.

2.4 Future Directions and Implications:

The final section discusses future directions and potential implications for e-language learning. It examines emerging trends such as artificial intelligence (AI), natural language processing (NLP), adaptive learning, and data-driven approaches. The section also highlights the importance of learner-centered design, accessibility, and inclusivity in e-language learning initiatives. It concludes by offering recommendations for further research and practice.

2.4.1 Domain

The Personnel Growth Board system is related to the domain of talent management and human resources. Talent management is a process that involves identifying, developing, and retaining high-potential employees to ensure the long-term success of the organization. The Personnel Growth Board system helps organizations achieve these objectives by providing a tool to identify and develop high-potential employees and build a stronger pipeline of future leaders.

The system is also related to the domain of employee engagement and retention. Employee engagement refers to the level of commitment and enthusiasm that employees have for their work and their organization. By providing employees with clear career growth and development opportunities, as well as regular feedback and coaching, the Personnel Growth Board system can help improve employee engagement and reduce turnover rates.

2.4.2 Existing System

Domain: The E-Language Learning system is related to the domains of talent management, human resources, employee engagement and retention, and technology and software development.

Approach: The approach for the E-Language Learning system is to provide a web-based platform that enables organizations to manage their talent development initiatives, including personalized development plans, feedback and coaching, and goal setting. The system is designed to support HR professionals in their efforts to develop and retain top talent within the organization. The system utilizes user-centered design principles to ensure that the platform is easy to use and intuitive for employees and managers.

Related Research: There is significant research supporting the use of talent management systems, such as the E-Language Learning, to improve employee engagement, retention, and performance. For example, a study by the Society for Human Resource Management found that organizations with effective talent management practices were more likely to have higher employee engagement, lower turnover rates, and greater financial performance compared to organizations with less effective talent management practices. Additionally, a study by the Aberdeen Group found that organizations with a formalized talent management strategy were 2.5 times more likely to achieve their business objectives compared to organizations without such a strategy.

Hardware and Software: The E-Language Learning system is a web-based platform that can be accessed via a computer with an internet connection. The software used for the system includes programming languages such as HTML, CSS, and JavaScript, as well as server-side programming languages such as PHP. The system may also utilize databases such as MySQL to store and manage user data.

2.4.3 Technique

Learning Management Systems (LMS): LMSs are software applications that enable organizations to deliver and manage training content for employees. While LMSs can be effective for delivering and tracking employee training, they may not be as effective at providing personalized development plans and coaching feedback.

Performance Management Systems (PMS): PMSs are software applications that enable organizations to track and manage employee performance goals and metrics. While PMSs can be effective for tracking employee performance, they may not be as effective at providing personalized development plans and coaching feedback.

Career Development Planning: Career development planning is a process that enables employees to identify and pursue their career goals within an organization. While career development planning can be effective for helping employees achieve their career goals, it may not provide the same level of structure and support as a talent management system such as the E-Language Learning.

The reason why the E-Language Learning System was chosen over these other approaches is that it provides a comprehensive and user-friendly platform that addresses multiple aspects of talent development, including personalized development plans, feedback and coaching, and goal setting. Additionally, the system is designed to be scalable and customizable to meet the specific needs of different organizations.

2.5 Project methodology

The selected approach for the E-Language Learning System is the Software Development Life Cycle (SDLC). SDLC is a well-known methodology used to design, develop and maintain software applications. This methodology comprises of several phases such as planning, analysis, design, development, testing, deployment, and maintenance.

In the planning phase, the objectives, requirements, and feasibility of the project are identified. In the analysis phase, the functional requirements of the system are analyzed and documented. In the design phase, the architecture and system components are designed. In the development phase, the actual code is developed based on the design specifications. In the testing phase, the system is tested for functional and non-functional requirements. In the deployment phase, the system is released into the production environment. Finally, in the maintenance phase, the system is maintained to ensure that it continues to meet the needs of users.

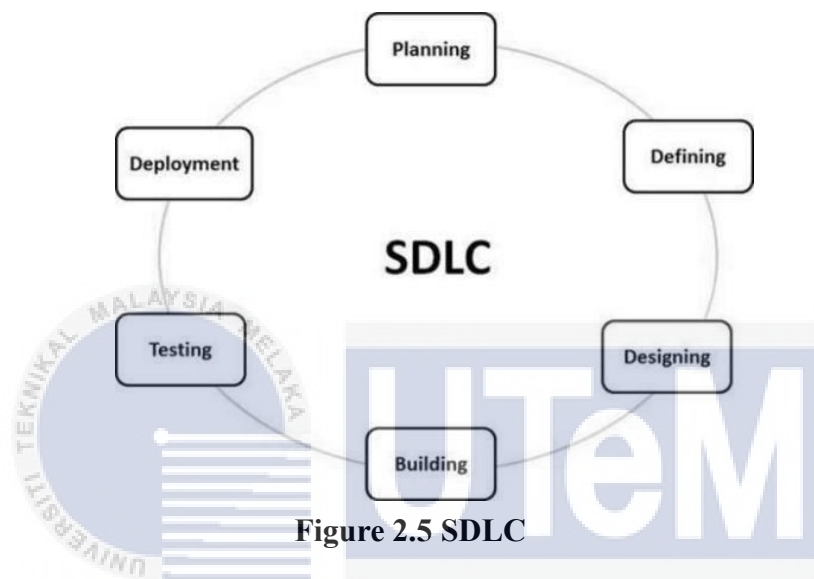


Figure 2.5 SDLC

Planning: This phase involves identifying the goals and objectives of the system, understanding user requirements, and conducting feasibility studies.

Defining: This phase involves gathering and documenting the requirements of the system, analyzing the data, and defining the scope of the system.

Design: This phase involves defining the architecture, developing system models, and designing the user interface.

Development: This phase involves coding the system, integrating different components, and developing the database schema.

Testing: This phase involves verifying the system against the requirements, conducting unit testing, integration testing, system testing, and acceptance testing.

Deployment: This phase involves releasing the system into the production environment, and training users.

Maintenance: This phase involves monitoring the system performance, identifying, and fixing bugs, updating the system to meet changing needs, and providing support to users.

2.6 Project requirement

2.6.1 Software requirement

a) Development Tools

- Language used – HTML,CSS,PHP
- Visual Code– it is a text editor for writing code.
- Microsoft Visio 2013 – to design Entity Relationship Diagram (ERD) and flowcharts.
- Microsoft Excel – to draw gantt chart.
- MySql Database – to create and store data

b) Operating System

- Windows 10 Home.

c) Database

- XAMPP – MySql

2.6.2 Hardware requirement

Hardware Requirement

- Device name : Acer Nitro 5
- Processor : Intel® Core™ i5-10300H CPU @ 2.50GHz
- Installed Ram : 8.00 GB
- Device ID : 15CA4D7D-E5C1-4155-9461-F42E762240F2
- Product ID : 00325-81818-85969-AAOEM
- System Type : 64-bit operating system, x64-based processor

2.7 Project Schedule and Milestones