CHAPTER 2

LITERATURE REVIEW

2.1 Theoretical Review

The theoretical foundation of online learning platform is built on several educational theories and models that provide and models that provide a frame work for understanding how learners occurs in digital environment. This section will explore three primary theories: Constructivist Learning theory, connectivism, and Connectivism and Cognitive Load Theory, with a focus on their application in the context of an online learning platform.

Constructivist Learning Theory: Rooted in the work of Jean Piaget and Lev Vygotsky, constructivist learning theory posits the leaners construct their own understanding and knowledge through experiences and reflecting on those experiences. In the context of online learning platform, this theory suggest that learners should be active participant in their education engaging with content in a meaningful way. For example, an online learning platform might incorporate interactive simulation, case studies, and project-based learning activities that requires student to apply their knowledge to real world scenarios. This engagement helps learners to construct a deeper understanding of the material.

Connectivism: Developed by George Siemens, Connectivism is a theory that emphases the role of social and cultural context in the learning process. In the digital age, learning is viewed as a process of connecting specialized nodes or information sources. Online learning platform can leverage this theory by integrating social learning features such as discussion board where student can share inside and resources, there by expanding their knowledge network

Cognitive load Theory: This theory, proposed by John Sweller focuses on the amount of information that working memory can hold at one time. It is essential for instructional design to consider cognitive load to avoid overwhelming learners. Online learning platform can apply cognitive load theory using multimedia elements strategically to enhance understanding without causing cognitive overload. For example, breaking down complex concept into smaller textual content and providing interactive quizzes to reenforce learning can help mange cognitive load. Platforms like khan Academy exemplify this approach by offering concise video lessons followed by practical excesses.

2.2 Conceptual Review

The conceptual review provides a details examination of key concept relevant to online learning platform. These concept include e-learning, blended learning, learning management system (LMS) and user experience (UX ) in online leaning.

E-Learning: E-learning encompasses the use of electronic media and information and communication technologies (ICT) in education. It includes a wide range of application, from fully online courses to hybrid or blended learning environment. E-Learning platform like Udemy and edX offer and accessibility to learner worldwide. The concept of e-learning also extend mobile learning (m-learning), where education content is accessible via smart phones and tablets , enhancing the reach and convenience of learning.

**Blended Learning**: Blended learning combines traditional face-to-face instruction with online learning activities. This approach aims to leverage the strengths of both methods to create a more effective learning experience. For example, a university might offer a course where lectures are delivered online, while in-person sessions are used for discussions, labs, and hands-on activities. Blended learning allows for personalized learning paths and can accommodate different learning styles, making it a versatile and inclusive educational model.

**Learning Management System (LMS)**: An LMS is a software application that facilitates the administration, documentation, tracking, reporting, and delivery of educational courses or training programs. Examples of popular LMSs include Moodle, Blackboard, and Canvas. These systems support various functions such as content delivery, assessment, and communication, enabling educators to manage courses efficiently. For instance, an LMS might provide tools for uploading lecture notes, conducting online quizzes, grading assignments, and fostering communication through discussion boards and messaging systems.

**User Experience (UX) in Online Learning**: UX in online learning refers to the overall experience of learners while interacting with the platform. A positive UX is critical for ensuring that learners can navigate the platform easily, access content without difficulty, and remain engaged throughout their learning journey. Key elements of UX design include intuitive navigation, responsive design, accessibility, and interactive features. For example, Duolingo, a language learning platform, uses gamification to make learning engaging and fun, offering a user-friendly interface that encourages continuous learning.

**2.4 PRESENTATION OF THE ENTERPRISE (INTERNSHIP)**

**2.4.1 Presentation of the Internship**

The internship was conducted at SEVIC HITM a higher institution of leaning which seek to provide Solutions in the academic world, and specializing in the development and implementation of online learning platforms. SEVIC HITM aims to revolutionize education through innovative e-learning solutions that cater to various educational institutions and corporate training needs. This institution of learning encourages creativity, EduLearn, is an advanced LMS designed to enhance the teaching and learning experience through cutting-edge technology and pedagogical principles.

**2.4.2 Activities Carried Out**

During the internship, the following activities were undertaken:

**Content Development**: Created and uploaded educational content, including videos, quizzes, and interactive modules, to the EduLearn platform. This involved carring out research online on the subject matter to ensure the accuracy and quality of the content.

**User Testing**: Conducted usability testing of the EduLearn platform with real users to gather feedback and identify areas for improvement. This process included designing test scenarios, facilitating user testing sessions, and analysing the results to provide actionable insights for the development team. I am still carrying this test to meet the needs of the population.

**Technical Support**: Assisted users with technical issues related to the platform, ensuring a smooth learning experience. This included troubleshooting problems, providing guidance on platform features, and escalating complex issues to the technical support team.

**2.4.3 Internship Experience**

The internship at SEVIC HITM provided invaluable practical experience in the field of educational technology. It offered the opportunity to apply theoretical knowledge in a real-world setting, gain hands-on experience with an LMS, and understand the operational aspects of an e-learning platform. The collaborative environment at SEVIC HITM fostered professional growth and learning, as interns were encouraged to contribute ideas and participate in various projects. Working alongside a team of professionals from diverse backgrounds enriched the learning experience and provided exposure to different perspectives and approaches.

**2.4.4 Strengths and Weaknesses**

**Strengths**:

* Exposure to cutting-edge technology in the e-learning sector, providing a comprehensive understanding of current trends and innovations.
* Hands-on experience with content creation and LMS management, enhancing technical and creative skills.
* Opportunity to work with a dynamic and supportive team, fostering a collaborative and enriching work environment.

**Weaknesses**:

* Limited exposure to certain advanced technical aspects due to time constraints, which restricted the depth of learning in some areas.
* Initial lack of familiarity with some of the tools and technologies used, requiring additional learning and adaptation.

**2.4.5 Problems Encountered**

Several challenges were encountered during the internship:

**Technical Issues**: Frequent technical glitches in the LMS required troubleshooting and delayed some tasks. These issues often involved software bugs, server downtime, and compatibility problems, which hindered the smooth operation of the platform.

**User Feedback**: Collecting and analyzing user feedback was time-consuming and required coordination with multiple stakeholders. The process involved designing surveys, conducting interviews, and synthesizing data to derive meaningful insights, which was challenging given the volume of feedback received.

**Content Adaptation**: Adapting existing educational content to fit the online format while maintaining engagement and effectiveness was challenging. This involved rethinking traditional teaching methods to create interactive and multimedia-rich content that could capture learners' attention and facilitate better understanding.

**2.4.6 Recommendations**

Based on the internship experience, the following recommendations are proposed:

**Enhanced Training**: Provide comprehensive training sessions for interns to familiarize them with all tools and technologies used in the company. This would help interns to be more effective in their roles and reduce the learning curve.

**Streamlined Feedback Process**: Develop a more efficient system for collecting and analysing user feedback to implement improvements more quickly. This could involve the use of automated tools for feedback collection and analysis, as well as establishing a dedicated team to manage this process.

**Regular Updates**: Regularly update the LMS and associated technologies to prevent technical issues and ensure a seamless user experience. This includes routine maintenance, software upgrades, and continuous monitoring to identify and resolve potential problems proactively.

**Collaborative Projects**: Encourage more collaborative projects that involve interns from different departments to enhance learning and innovation. This interdisciplinary approach can foster creativity, improve problem-solving skills, and lead to the development of more comprehensive solutions.