**CHAPTER TWO**

**LITERATURE REVIEW**

**2.0 Introduction**

The purpose of this literature review is to provide the reader with a general overview of the Virtual Library Learning Platforms, the current Learning System currently used by students of the Faculty of Management Science, and the Effectiveness of the proposed system to both instructors and students.

**2.1 Review of Existing System**

Currently the Faculty of Management Sciences 300 Level students and instructors engage the traditional method of Learning and Lecturing respectively. Students are expected to avail themselves to lecture sessions where they listen to lectures passed by courses lectures. During lecture sessions, instructors share information to students in various forms.

According to Alison (2021), Communication within the classroom is important in order for students to learn effectively and should be put in place from an early stage of learning. Classroom communication exists in three categories: verbal, nonverbal, and written.

* Verbal communication refers to sending or receiving a message through sounds and languages. Teachers can address one student or the whole classroom through verbal communication. For example, a teacher may ask a student to stand up which is verbal communication.
* Non-verbal communication refers to communicating without words through body language, gestures, facial expressions, the tone and pitch of the voice, and posture. For example, if a teacher is nodding their head while a student is speaking, this can be encouraging or show that they agree with the student.
* Written communication is sending or receiving information through writing. For example, a teacher may arrange a written assignment for students to test their knowledge or present lecture slides or notes for complicated information.

A lecture (from the Greek *lecture*, meaning reading) is an oral presentation intended to present information or teach people about a particular subject, for example by a university or college teacher. (GreyNet International, 2021). Many university courses relying on lectures supplement them with smaller discussion sections, tutorials, or laboratory experiment sessions as a means of further actively involving students. Often ,these supplemental sections are led by graduate students, tutors, teaching assistants, or teaching fellows rather than senior faculty. Those other forms of academic teaching include discussion (recitation if conducted by a teaching assistant), seminars, workshops, observation, practical application, case examples/case study, experiential learning/active learning, computer-based instruction, and tutorials (Gaskell's Compendium, 2008).

Current 300 Level students of the Faculty of Management science currently employ the traditional means of learning which includes;

* Instructor to student (One to One): Students are given the opportunity to interact with lectures one on one, this could be during lecture sessions and school hours, but at the convenience of the lecturer.
* Instructor to students (One to many): One to many lecture session is mostly used by instructors to communicate information to students at scheduled periods usually in a semesters timetable for a course.
* Group discussions (Many to many): Group discussions could be carried out by students when the need to learn from themselves or when instructors give group assignments, in this case group members are required to work closely to solve the assignment given.
* Learning using lecture notes and handouts: The use of lecture notes and handouts is anther effective way lecturers in the Faculty of Management Science use to complicate information to students, students are expected to go through this notes at their pace.

**2.2 Design of Virtual Library Learning Platform (VLLP) for learners and instructors for  
Faculty of Management Sciences.**

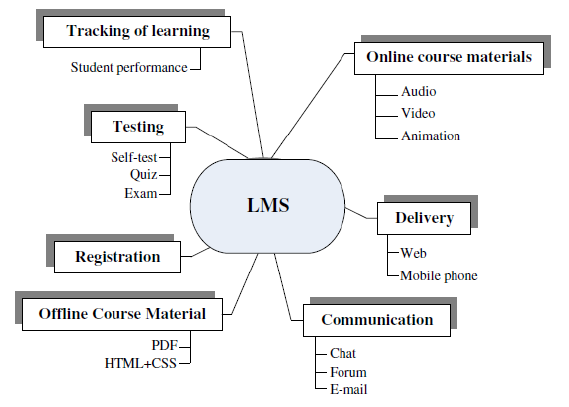
A Learning Management System (LMS) delivers and manages all types of content, including video, courses, and documents. In the education and higher education markets, an LMS will include a variety of functionality that is similar to corporate but will have features such as teacher and instructor-facilitated learning, a discussion board, and often the use of a syllabus. A syllabus is rarely a feature in a corporate Learning Management System although courses may start with heading-level index to give learners an overview of topics covered (Ellis, 2009). The development of E-learning technology is very rapid and this is one of the reasons why this concept is important to be implemented and developed massively. The urgency factors are class limitations, boredom in learning, and limited interactions. Online learning is cooperative in nature. It requires high levels of interaction and collaboration to be successful (Naveh, 2010).

According to Victoria (N.d), Creating a custom system can be a daunting task, and without the right planning, a simple project can turn into a big headache. Here are the four things I recommend considering when designing or adopting a Learning Management System.

1. Focus on data–for both instructors and students.
2. Design for usability–make it ‘pleasurable’ to use
3. Plan for mobile from the very beginning
4. Design curriculum and instruction with the strengths of your specific LMS in mind

Opportunity Network’s student portal organizes content into courses that students can enroll in. Each course is self-paced and covers a host of content, and completing a course unlocks more courses. Therefore they have agency and a clear path for leveling up at the same time (Mike, 2021).

According to Balogh (2011), the figure below depicts a basics Virtual Learning Management system.



**2.3** **Design and implementation of a Login Module for learners and instructors to access the functions of the Virtual Library Learning Platform (VLLP)**

In computer security, logging in (or logging on, signing in, or signing on) is the process by which an individual gains access to a computer system by identifying and authenticating themselves. The user credentials are typically some form of username and a matching password, (The Linux Information Project, 2021). These credentials themselves are sometimes referred to as *a* login (or logon, sign-in, sign-on). In practice, modern secure systems often require a second factor such as email or SMS confirmation for extra security. (Oxford Dictionary, 2021). When access is no longer needed, the user can log out (log off, sign out or sign off).

According to Memari (2021), some of the advantages of a Login module for Learning platforms are:

1. Single Sign On (SSO) enables users to easily and quickly switch between corporate systems, portals, and applications, without the need to login each time. Learners can instantly access their LMS whenever they need to complete training or access resources to supplement their learning. They also save time and effort from having to deal with password reset requests and waiting on IT support if they end up getting locked out of their account.
2. Having a fast and uncomplicated way for users to login to their LMS will provide them with training resources and materials right at their fingertips whenever they need it. Making it simple to access lecture materials will increase user adoption and encourage them to supplement their learning to build knowledge on a topic or use it as support if they are struggling in a particular area.
3. When offering a new course or training program for dozens to thousands of users, it is inevitable that some of them will forget their passwords and require IT support to help them regain access. Employing Login module for your LMS greatly reduces the amount of password support tickets as users only need one login credential instead of having many different usernames and passwords.

VLLP supports single sign-on by automatically allowing learners to sign in to the training platform using only the login information of their existing cloud accounts (Memari, 2021).

**2.4 Design of Course Management and Accessibility Module on the platform for learners and instructors.**

A Course Management System (CMS) is a platform of educational software in post-secondary education allowing instructors and institutions to manage a variety of courses with a large number of students and multiple instructional materials. Course management systems, such as Blackboard, Canvas, Desire2Learn (D2L) and Moodle (Open-source Learning Platform) provide a single online environment for teaching and learning materials to be shared between instructors and students. (Tophatmonocle Corporation, 2021).

It is a web-based tool that allows instructors, universities, and corporations to develop and support online education. Course Management System software allows instructors to manage materials distribution, assignments, communications and other aspects of instruction for their courses. An example is Blackboard. (IGIglobal, N.d). According to Vanderbilt University (2021), a Course Management System (CMS) is a collection of software tools providing an online environment for course interactions. A CMS typically includes a variety of online tools and environments, such as:

* An area for student posting of papers and other assignments
* A gradebook where faculty can record grades and each student can view his or her grades
* An integrated email tool allowing participants to send announcement email messages to the entire class or to a subset of the entire class
* A chat tool allowing synchronous communication among class participants
* A threaded discussion board allowing asynchronous communication among participants
* An area for faculty posting of class materials such as course syllabus and handouts

The Course Management System is made to optimize the efficiency and effectiveness of your instructor-led training. There are many great course management software features that make it a core layer in the learning tech stack and a key complement to the Learning Management System (LMS) (Monica, 2020). According to Monica (2020), The main features to look for when considering training course management software are those focused on course management and scheduling, resource management, interaction with students, and resources sharing functionalities.

**2.5 Identification of the effectiveness and efficiency of the platform in granting the learners access to personalized data such as, courses enrolled in and related resources, information resources (e.g Articles, PDFs and Webpage links), and chat functionalities with other users of the system.**

1. Access to information anytime and anywhere: Students can get access to study materials from anywhere and at any time. Most modern LMSs have mobile apps that allow students to engage with e-learning content on any device (Harvey, 2021).
2. Centralized information: All lecture resources are hosted in one location which makes it possible for students to quickly access and put to use various information resource when needed.
3. Increased communication: Virtual Learning Platforms provide chat functionalities for participants of a course to effectively communicate. This makes it possible for students and instructors to stay up-to-date with latest information (Harvey, 2021).
4. Studying becomes more enjoyable: Students have the leverage of studying at their own pace which makes learning more interesting and fun.
5. Time saving: Virtual Learning Platforms make it possible for students to access learning resources in less time. (Sander, 2020)

2.6 **Identification of the effectiveness and efficiency of the platform in granting the lecturers/instructors access to virtual course and information resource management functionality and online interaction with learners.**

1. Effective course resource management: Virtual Learning Platform makes it possible for instructors to manage course resources in one place and grant access to this resources as at when needed. This eliminates the need to share lecture resources manually to students (Innovative Learning Solutions, 2020).
2. Increased communication: Instructors are provided with a tool whereby they gain fast access to their students and share information with less effort. Without such platforms, instructors would need to depend mostly on course representatives to communicate information to students (Innovative Learning Solutions, 2020).
3. Consistency of learning: Delivering your course through an LMS keeps the content centralized so all the students have a single source of content, instructions and questions. No excuses of old books or last years material. Everybody is up-to-date. (EasyLMS, 2021).
4. Organizes Learning in A Single Location: It becomes easier for instructors to store and manage course resources which could be accessed by students remotely without having to be physically present. Currently most Virtual Learning Platforms are stored in cloud-based environment (Innovative Learning Solution, 2020).

**2.7.**1 **SUMMARY**

A Virtual Library Learning platform is a web-based platform built to support virtual learning on the internet. This is made possible by providing various digital tools, applications and interfaces instructors use to interact with the platform in accessing various functionalities; Some of the functionalities provided by a typical VLLP are authentication, courses management, interaction, enrollment and search modules. All this are made available for users which includes learners and instructors to effectively interact seamlessly.

2.7.2 **Existing gap to be filled**

1. Development of an online platform for instructors to manage course resources effectively
2. Development of course forums where students and instructors for particular courses can effectively communicate.
3. Development of resources search module for students to search for information based on keywords inputted.
4. Development of online courses enrollment module, when students can enroll for courses offered and automatically gain access to course resources uploaded.

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