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# INFORMATION RETRIEVAL THROUGH MOODLE (LEARNING MANAGEMENT SYSTEM) AND FACEBOOK (SOCIAL MEDIA) AMONGST STUDENTS OF THE NATIONAL DEFENCE UNIVERSITY OF MALAYSIA (NDUM)

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**Article Info:**

**Abstract:**

In higher education level of study, students often face difficulties in retrieving information especially academic information. In today's modern world, it is found that there are many ways to retrieve information such as through Moodle, which is a Learning Management System and Facebook, which is a Social Media. The objectives of this study are to identify the preference between retrieving information through Moodle and Facebook, to investigate the reasons why students choose Moodle or Facebook and, to find whether there is correlation between the use of Moodle and Facebook in information retrieval activities. This study uses a quantitative approach where a questionnaire was constructed using Google Form. The sampling used in the study is a convenient sampling which focuses on students from five faculties at the National Defence University of Malaysia, in which questionnaires are distributed to 150 respondents. The data from the questionnaire are analysed using descriptive analysis, reliability analysis, inferential analysis, and thematic analysis. Descriptive analysis is conducted to collect the frequency, percentage, and mean values of data. The reliability analysis is conducted to six questions on Moodle and six questions on Facebook, inferential analysis is conducted to the Dependent Variable and Independent Variables of study questions, and lastly, thematic analysis is conducted to analyse the answers to the open-ended questions. The finding of the study exposed that most students preferred to use the Moodle in retrieving academic information where they claimed, it is a better platform to retrieve information as it has the features which are suitable and seen by the students as a more valid and reliable source of receiving academic information. Nevertheless, there is a fair percentage of students who preferred Facebook over Moodle. This implies that the disparity of students' preferences in retrieving information should be taken into consideration by educationists when preparing teaching and learning.

## Introduction

Today, technology spreads swiftly as an arrow. It spreads widely as every people in the world has access to it. Smartphones and computers are some examples of technology gadgets that are used by everyone in the world. In spreading information, like news, current issues, and announcements; it is easier now to deliver them by using these technology gadgets and the internet. These gadgets make it faster to access any information nowadays.

At universities, students' time table is packed with activities. Students at all-time need to find information and are at ease if the information is easily assessable and on the go. For academic purposes, the university has promoted learning to be conducted via electronic media which is learning using the internet or well known as e-learning. The university promotes this by having a university platform which is called Moodle. All lecturers at NDUM have to put their courses on Moodle and it is compulsory for them to reach the course status "Blended" where they have to reach the minimum requirements: 8 resources, 3 activities, and 2 assessments on their Moodle. Moodle is the most common open source a Learning Management System (LMS) (Kushwaha et al., 2019). The use of  LMS, such as Moodle, is to serve as the platform for course sites where its objectives are: 1) providing students with digital learning materials, such as articles, presentations, summaries of lessons, and arrange them in a way that reflects the course plan; 2) to employ interactive learning activities with students in forums, wikis, and other collaborative tools; and 3) to manage the course and the learners, maintaining tests, evaluating the students' learning and achievements, and giving grades online (Meishar-Tal et al., 2012). In addition, Alkhateeb (2021) explored factors influencing students' satisfaction towards using LMS (Moodle) and found that the 6 factors: ease of use, usefulness, information quality, system quality, service quality, and computer self-efficacy. He also recommended that the Moodle should be integrated with social media platforms and could be assessed fully and properly by mobile phones. It is an alternative for lecturers to deliver assignments besides giving them out in the classrooms. Moodle eases the users in accessing the information.

On the other hand, the lecturers have an option to put the assignments on social media such as Facebook and Twitter. Using social media is commonly practiced by lecturers at NDUM across all faculties and centres. For example, instead of posting links of videos on Moodle, students have class Facebook group where they can post their videos. Facebook and Twitter are examples of social networking sites or Social Media (SM). Most students nowadays, have Facebook accounts so they have the option of fetching the assignments from this media. It is handy for them as they can retrieve the academic information at anytime and anywhere in their daily life or on-the-go access. A Facebook group contains some LMS components, digital and interaction components and is seen as an alternative to the LMS. It is also labelled as an entertainment-oriented site or edutainment tool. Facebook seems to be one of the most effective tools because students generally respond to discussions quickly and are comfortable enough in their "space" to share their information and opinions (Hassan, 2014). Facebook is the number one social network site which has 2, 500, 000, 000 monthly active users in 2021 (Kallas, 2021). It has the largest number of users aged 13 to 17, although the number may be shrinking (Sehl, 2019), and 86% of people ages 18 to 29 use Facebook (Khorox.com, n.d), representing people who are in colleges and universities worldwide.

From all the stated points above, there is a need to conduct this study. The objectives of this study is as listed below:

RO1: To identify the preference between retrieving information through Moodle and Facebook.
RO2: To investigate the reasons why students, choose Moodle or Facebook.
RO3: To find whether there is correlation between the use of Moodle and Facebook in information retrieval activities.

To achieve the above objectives, eight (8) research questions are constructed as follows:

RQ1: How do you like getting introduction to a new course (syllabus, course assessment) from Moodle and Facebook?
RQ2: How do you like getting course notes (in word file) from Moodle and Facebook?
RQ3: How do you like retrieving announcement from Moodle and Facebook?
RQ4: How do you like retrieving assignments from Moodle and Facebook?
RQ5: How do you like retrieving information through chat from Moodle and Facebook?
RQ6: How do you like retrieving reinforcement to class activities (Video on certain topics using links) from Moodle and Facebook?
RQ7: What are the reasons for choosing either Moodle or Facebook?
RQ8: Is there any significant correlation between the use of Moodle and Facebook in information retrieval activities?

If social media such as Facebook is a potential and sufficient tool for learning and teaching that can be used for this group of young people's information retrieval, why is there a need to have an LMS at university's level? For this matter, it is also essential to understand the advantages and disadvantages, as well as how to appropriately use Facebook for learning and teaching. The focus of the study is on retrieval of information, to be exact information for academic, for both LMS (Moodle) and social media (Facebook).

**Literature Review**

*Theory On Online Learning*
According to Van Buren and Sloman (2003), 62% of all learning technology initiatives failed to meet expectations. Some authors mentioned the main classes of learning theory which are related to online learning are: Behaviourism, Cognitivism, and Constructivism (Driscoll & Carliner, 2005; Ertmer & Newby, 1993). In Anderson (2008), the nature of online training, the position of interaction, and the chances theories and models for online learning are given. Cognitive developmental learning theory plays a key role in the early cases of understanding approaches to thinking. E-learning using MOODLE encourages the students to use the mind to understand, interpret, analyse and manipulate information to find possible solutions for various problems and encourages students to think, to generate new ideas, to focus and to be active throughout the teaching and learning activities (Sumarwati et al., 2020). Because of its nature, where time and distance often divide educators and students, cognitive processes play a more important role in e-learning. E-learning keeps lecturers apart from students, hence he or she needs to use cognitive processes more (e.g. to think of online activities that will induce maximum participation and not bore his or her student) and vice versa. The question here, which electronic media involves more cognitive processes; a LMS or SM? Obviously, the one which eases usability will interest students more.

### Theory on Learning Management System

An LMS is a software programme for administration, documentation, reporting, tracking, and provides educational courses, education applications, or learning and development programmes. An LMS enables communication and interaction between teachers and students in the virtual space. The origins of educational management, in particular, e-learning management, relate to the General Theory of Administration in the 20th century. According to Sobral and Peci (2008), administration consists of efficient and effective use of resources within the organisation, so that its objectives can be achieved. In this regards, the contemporary administration process involves **four** interrelated activities called administrative functions: planning, organisation, management, and control. To confirms the effectiveness of a programme (Moodle), users (both lecturer and students) need to have the ability to plan, organise, manage, and control the software. This means, a lecturer who puts a course on Moodle, needs to plan, organise, manage, and control Moodle to ensure the effectiveness of Moodle.

### Theory on Social Media

According to Hudson (2017), social media refers to websites and web-programmes designed to permit people to share content advance, effectively, and in real-time. There are some features that social media share in common, which is social media are interactive Web 2.0 Internet-based programmes, consumer-generated content, consisting textual content or comment posts, digital or video photos, and data generated through all online interactions, and lastly social media facilitates the development of online social networks by connecting user profiles with different individuals or groups.

A theory which is related to social media is **Uses and Gratification Theory** (UGT). The UGT discusses on how people actively looking for specific media content for a specific purpose and general purpose (Katz, Blumler, & Gurevitch, 1974). UGT reinforces the communication transition of communication knowledge, from observation it is not what effect the media has on people, but what people can do with the media. In addition, according to West and Turner (2007), UGT offers a "framework for understanding when and how the users become more or less active and consequently increase or decrease engagement". This theory has five predominant assumptions:

    (1) The target people are active and active in their media,
    (2) The media was used to their satisfaction,
    (3) The media competes in other ways,
    (4) People understand the functions of personal media, and their motive was sufficient to communicate with the researchers about their choices, and
    (5) The audience was the person that could consider the value of media content.

People have Facebook accounts because they because they have cultivated a daily habit of going online to go through their feed which covers a daily dose of news content and updates from their friends. Sometimes, they upload photos of their trips and comment on existing stuff, and these give satisfactions to the users but not using the app causes tension and uneasiness. In other words, people use Facebook for multiple reasons, amongst them are to write comments or like a post, seek attention, stalk people, to lessen boredom, promote one's work, support social cause, and to remain connected with friends.

## What is Moodle?

According to TFD Encyclopedia, Moodle is an open-source Learning Management System (LMS) written in PHP and dispensed under the General Public License (GNU). An object-oriented dynamic learning environment is a kind of LMS or an online learning system (OLS) (TFD Encyclopedia, 2017). According to Technopedia, LMS was originally developed by educators and is now maintained by Moodle Community and Moodle HQ. Moodle course management offers functionality for developing and managing online education courses. Features of Moodle include the ability to develop courses, signed up students, manage assignments, and offer quizzes, grading, and discussion forums for thousands of virtual college or university students at a time and also Moodle could be used as a generic knowledge management system.

## What is Facebook?

According to Daniel Nations (2016), Facebook is a social networking web page where users can post comments, share pictures and links to new information or other interesting content on the net, live chat, and watch short videos. The shared content is publicly reachable, or it may be shared only with a specific group of friends or family, or with one person. According to Goodwill (2018), Facebook is first designed for college students. Facebook was developed in 2004 by Mark Zuckerberg when he is one of the students at Harvard University. In 2006, any person that is over the age of 13 with a valid email address could join Facebook. Today, Facebook is the largest social network community in the world, with more than 1 billion users globally. The key feature of Facebook that makes it popular is, it lets you keep a list of friends and choose privacy settings to personalise who can access the content on your profile, able you to upload photos and store photo albums that you able to share with your friends and lastly Facebook's developer network provides advanced options for functionality and monetisation.

## Methodology

### Data Collection Method

This study has adopted the combination of quantitative and qualitative design research conducted on NDUM students. Based on the study goals and questions, the number of respondents in this study covered all undergraduate students at the National Defence University of Malaysia (NDUM). These undergraduates included students from different faculties where there are 800 students from Year One, 1200 from Year Two, 800 from Year Three and, the rest are from Year Four and Five.

The kind of sampling conducted was convenience sampling. Convenience sampling is different from random sampling, while random sampling is a subset of a statistical population where each member has the equal probability to be chosen, convenience sampling is a type of sampling that involves the sample being drawn from the part of population that is close to hand. The questionnaires were distributed to all 150 students from five faculties which are the Engineering Faculty, Defence Studies and Management, Defence Science and Technology, Language Centre, and Medicine and Defence Health. One class was picked from each faculty. They were picked on the grounds that they were reachable and easy to approach and ready to answer a questionnaire, specifically constructed for this study. A five point Likert Scale was used utilised to gauge the close ended questions in this study as it enables measurements to be evaluated. The scale ranged from (5: Strongly agree/ I like it very much to (1: Strongly disagree/ I don't like it at all). The questionnaire is in Google Form which is indicated by Silva (2018) as an online application created by Google that is utilised to make structures for information assortment purposes. Information gathered utilising structures is normally put

away in a spreadsheet and transferred to SPSS for detailed analysis. It required no cost and just set aside a brief time of effort to gather the data from respondents. In addition, self-managed overview bears the open door for the study to presented the study theme and enables any uncertainty from the respondents to be explained on the spot to guarantee a 100% reaction rate for the review (Sekaran & Bougie, 2013).

There were three (3) sections in the questionnaire and questions are based on how the respondents retrieved information through the e-learning platform and social media amongst undergraduate students at the NDUM. For Section A, there are 4 questions on respondents' demographic information. Secondly, in Section B, there are six (6) questions where each question has two (2) parts: Part a and Part b. Lastly, Section C has only one (1) question which asked respondents the reasons for their preference of retrieving information.

**Table 1: The Faculties and Number of Samples of Study**

| Faculty / Year | Engineering | Defence Studies and Management | Defence Science and Technology | Language Centre | Medicine and Defence Health | TOTAL |
|---|---|---|---|---|---|---|
| Year 3 | 20 | 12 | 22 | 58 | 2 | 114 |
| Year 2 | - | 12 | - | - | 24 | 36 |
| Year 1 | - | - | - | - | - | - |
| TOTAL | 20 | 24 | 22 | 58 | 26 | 150 |

*Reliability*
The reliability of the items in the questionnaire was tested using Cronbach Alpha coefficient as shown in Table 1. Cronbach's Alpha coefficient is used to check the reliability of instrument which refers to the consistency or stability of a measure of behaviour (Drost, 2011).

**Table 2: Cronbach's Alpha values for Each Variables in Section B**

| PART (no of questions) | VARIABLE | ALPHA VALUE | INTERNAL CONSISTENCY |
|---|---|---|---|
| Part a (6 questions) | Moodle | 0.897 | Very Good |
| Part b (6 questions) | Facebook | 0.887 | Very Good |

The ratio of each faculty was calculated based on the total number of samples. These ratios were Faculty of Engineering 13.3%, Defence Studies and Management 16%, Defence Science and Technology 14.7%, Language Centre 38.7%, and Medicine and Defence Health 17.3%.

**Data Analysis**

*Demographic Profile*
Table 3 below shows the demographic profile of students who answered the questionnaire for the purpose of this study. As can be seen in Table 3, the population sample was made up of only Year 2 (23.8%) and Year 3 (76.2%) students.

### Table 3: Distribution of Respondent's Demographic Information

| SUBJECT | FREQUENCY | PERCENTAGE (%) |
|---|---|---|
| Faculty | | |
| Faculty of Engineering | 20 | 13.2 |
| Language Centre | 58 | 38.4 |
| Faculty of Defense Science and Technology | 22 | 14.6 |
| Faculty of Medicine and Defense Health | 26 | 17.2 |
| Faculty of Defense Studies and Management | 25 | 16.6 |
| **TOTAL** | **150** | **100** |
| Years of Study | | |
| Year 1 | - | - |
| Year 2 | 36 | 23.8 |
| Year 3 | 114 | 76.2 |
| **TOTAL** | **150** | **100** |

*Students' Preference between Moodle and Facebook*

Section B contained 6 closed-ended questions which contained two (2) parts of questions (a/Moodle (LMS) and b/ Facebook (Social Media)). The data collected were analysed using descriptive statistics as shown in the table below. The total number of respondents was 150.

### Table 4: Frequency and Mean for Question 1 (a) (b) to Question 6 (a) (b) in Section B: Respondents' Preference between Moodle and Facebook

| ITEM | FREQUENCY (PERCENTAGE %) | MEAN (LEVEL) |
|---|---|---|
| Q1 (a). How do you like getting introduction to a new course (syllabus, course assessment) from Moodle (LMS)? | I don't like it all 1 (0.7)<br>I don't like it 14 (9.3)<br>I am neutral 31 (20.7)<br>I like it 63 (42.0)<br>I like it very much 41 (27.3) | 3.86 (High) |
| Q1 (b). How do you like getting introduction to a new course (syllabus, course assessment) from Facebook (Social Media)? | I don't like it all 19 (12.7)<br>I don't like it 27 (18.0)<br>I am neutral 37 (24.7)<br>I like it 47 (31.3)<br>I like it very much 21 (13.3) | 3.15 (Medium) |
| Q2 (a). How do you like getting course notes (in word file) from Moodle (LMS)? | (1) I don't like it all 1 (0.7)<br>(2) I don't like it 13 (8.7)<br>(3) I am neutral 19 (12.7)<br>(4) I like it 68 (45.3)<br>(5) I like it very much 49 (32.7) | 4.01 (High) |
| Q2 (b). How do you like getting course notes (in word file) from Facebook (Social Media)? | I don't like it all 20 (13.3)<br>I don't like it 38 (25.3)<br>I am neutral 52 (34.7)<br>I like it 34 (22.7)<br>I like it very much 6 (4.0) | 2.79 (Medium) |

| | | |
|---|---|---|
| Q3 (a). How do you like retrieving announcement from Moodle (LMS)? | I don't like it all 6 (4.0)<br>I don't like it 22 (14.7)<br>I am neutral 25 (16.7)<br>I like it 61 (40.7)<br>I like it very much 36 (24.0) | 3.66 (High) |
| Q3 (b). How do you like retrieving announcements from Facebook (Social Media) | I don't like it all 21 (14.0)<br>I don't like it 36 (24.0)<br>I am neutral 39 (26.0)<br>I like it 38 (25.0)<br>I like it very much 16 (10.7) | 2.95 (Medium) |
| Q4 (a). How do you like retrieving assignments from Moodle (LMS)? | I don't like it all 4 (2.7)<br>I don't like it 9 (6.0)<br>I am neutral 27 (18.0)<br>I like it 59 (39.3)<br>I like it very much 51 (34.0) | 3.96 (High) |
| Q4 (b). How do you like retrieving assignment from Facebook (Social Media)? | I don't like it all 24 (16.0)<br>I don't like it 48 (32.0)<br>I am neutral 35 (23.3)<br>I like it 33 (22.0)<br>I like it very much 10 (6.7) | 2.71 (Medium) |
| Q5 (a). How do you like retrieving information through chat from Moodle (LMS)? | I don't like it all 12 (8.0)<br>I don't like it 32 (21.3)<br>I am neutral 30 (20.0)<br>I like it 50 (33.3)<br>I like it very much 26 (17.3) | 3.31 (High) |
| Q5 (b). How do you like retrieving information through chats from Facebook (Social Media)? | I don't like it all 17 (11.3)<br>I don't like it 30 (20.0)<br>I am neutral 32 (21.3)<br>I like it 44 (29.3)<br>I like it very much 27 (18.0) | 3.23 (High) |
| Q6 (a). How do you like retrieving reinforcement to class activities (Video on certain topic using links) from Moodle (LMS)? | I don't like it all 7 (4.7)<br>I don't like it 14 (9.3)<br>I am neutral 33 (22.0)<br>I like it 62 (41.3)<br>I like it very much 34 (22.7) | 3.68 (High) |
| Q6 (b). How do you like retrieving reinforcement to class activities (Video on certain topics using links) from Facebook (Social Media)? | I don't like it all 12 (8.0)<br>I don't like it 35 (23.3)<br>I am neutral 44 (29.3)<br>I like it 39 (28.0)<br>I like it very much 20 (13.3) | 3.13 (Medium) |

Referring to Table 4, it shows the result of frequencies and mean values for question 1(a) which is "How do you like getting introduction to a new course (syllabus, course assessment) from Moodle (LMS)?" The result showed that only 1 respondent (0.7%) chose "I don't like it very much". 14 respondents (9.3%) chose "I don't like it", 31 respondents (20.7%) chose "I am neutral". The highest score collected was 63 respondents (42%) for "I like it" and lastly 41 respondents (27.3%) chose "I like it very much". The mean value for that question showed a **High** level which is 3.89. In addition, the table also shows the result of frequency and mean values for question 1(b) which is "How do you like getting introduction to a new course

(syllabus, course assessment) from Facebook (Social Media)?". In this question, the reaction of respondents showed that 19 respondents (12.7%) chose 'I don't like it at all' another 27 respondents (18%) chose "I don't like it". About 37 respondents (24.7%) chose "I am neutral". 47 respondents (31.3%) and 21 respondents (13.3%) chose "I like it" and "I like it very much". The mean value the question was 3.15 which at the **Medium** level.

For these two questions, the result showed that most respondents chose "I like it which they are likely to choose both Moodle (LMS) and Facebook (Social Media) in getting information on introduction to a new course. 69.3% of respondents agreed that they like to get more information to Introduction to the syllabus and course assessment through Moodle and only 44.6% respondents chose to get it from Facebook.

Table 4 represents the frequencies and mean values for question 2 (a), "How do you like getting course notes (in word file) from Moodle (LMS)?". There is only 1 respondent (0.7%) did not agree with that and chose "I don't like it at all", 13 respondents (8.7%) chose "I don't like it" and 19 respondents (12.7%) said "I am neutral". A huge number of respondents (68 respondents) (45.3%) chose "I like it" to show that they liked using Moodle to retrieve academic information and the rest 49 respondents (32.7%) chose "I like it very much". The question also resulted a mean value of 4.01 which is at **High** level according to the descriptive of mean score in Chapter Three. The table also shows the frequency and mean value for 2 (b) which was nearly the same with question2 (a) but it is about getting the Course note (in word file) from Facebook (Social Media). The result showed for "I don't like it at all", there were 20 respondents (13.3%) who chose the answer, while there were 38 respondents (25.3%) who chose "I don't like it". 2 respondents (34.7%) chose "I am neutral", 34 respondents (22.7%) chose "I like it" and only 6 respondents (4.0%) agreed and chose "I like it very much". Question 2 (b) has a mean score of 2.79 and is at **Medium** level.

From these results, it showed that both questions recorded different results. More respondents "liked" to get their course notes (in word file) from Moodle (LMS), while for Facebook (Social Media) most respondents recorded "neutral". This shows that most of the respondents preferred to use Moodle which is 78% to retrieve their course notes (in word file) more than from Facebook which is 26.7%.

For Table 4, for the frequency and mean value for question 3 (a), there were less respondents choosing "I don't like it at all" where 6 respondents (4.0%) for Moodle (LMS) as compared to 21 respondents (14%) for Facebook; for "How do you like receiving announcement". 22 respondents (14.7%) chose "I don't like it" and 25 respondents (16.7%) chose "I am neutral". 61 respondents (40.7%) agreed with answer and chose "I like it" and 36 respondents (24%) agreed very much. The mean score recorded for question 3 (a) was 3.66 and at the **High** level for retrieving announcement from Moodle. On the other hand, question 3(b), "How do you like retrieving announcements from Facebook (Social Media)?" recorded 21 respondents who chose "I don't like it at all" which was 14% of the total respondents. For answer "I don' like it", there were 36 respondents (24%) who responded to that answer. 39 respondents (26%) and 38 (25.3%) respondents said that "I am neutral" and "I like it". Lastly, only 16 respondents (10.7%) who chose "I like it very much" and the mean score for this question was 2.95 which is the **Medium** level.

Next, for respondents' response to liking to retrieve announcement, for Moodle it is 64.7% and for Facebook it is 35.7%; this proves that more respondents prefer to get announcement from Moodle as compared to receiving announcement from Facebook. There were a similar number of respondents who chose "I am neutral" and "I like it".

Table 4.4 shows an impressive result of frequency and mean value on question 4 (a) and 4 (b). For question 4 (a) "How do you like retrieving assignments from Moodle (LMS)?". Respondents showed a very responsive answer. There were only 4 respondents which was 2.7% of respondents who answered "I don't like it at all" and 9 respondents (6%) who answered "I don't like it". On the other hand, for answer "I am neutral", there were 27 (18%) respondents who chose neutral. There were 59 respondents (39.3%) who chose "I like it" and 51 respondents (34%) said "they like it very much". The mean score for this question is at the **High** level with a value of 3.96. For question 4 (b) with the question "How do you like retrieving assignment from Facebook (Social Media)?" showed that 24 respondents with 16% of total 150 respondents, chose "I don't like it at all" and 48 respondents (32%) said that "I don't like it". For the option "I am neutral", there were 35 respondents (23.3%) who chose that and 33 respondents (22%) chose "I like it". Only 6.7% respondents (10 respondents) chose "I like it very much". The mean score of the question was at the **Medium** level with a score of 2.71 according to the description of mean score in Chapter Three.

Both questions showed that students prefer retrieving assignments from Moodle (73.3%) than Facebook (28.7%). 72 students (48%) do not like getting their assignments from Social Media.

Question 5 (a) "How do you like retrieving information through chat from Moodle (LMS)?" showed a High level of mean score which was 3.31. There were 12 respondents (8%) who chose "I don't like it at all" and 32 respondents (21.3%) chose "I don't like it". For "I am neutral" there were 30 respondents (20%) but an impressive 50 respondents chose "I like it" with a percentage of 33.3%. For the option "I like it very much", 26 respondents (17.3%) chose this option. Next, is question 5 (b), "How do you like retrieving information through chats from Facebook (Social Media)?", about 17 respondents (11.3%) chose "I don't like it at all" and 30 respondents (20%) chose "I don't like it". 32 respondents (21.3%) said they were neutral and 44 respondents (29%) agreed with the question and chose "I like it". 27 respondents (18%) who responded "I like it very much". The mean score for this question is at **High** level with a score of 3.23.

In both questions, 5 (a) and 5 (b), for some options there were similar number of respondents who agreed to the options; where retrieving information through chats was concerned. The result recorded as above where both showed liking receiving information through Chat, whether it is on Moodle (50.6%) or on Facebook (47.3%).

Based on above table, question 6 (a) resulted only 7 respondents (4.7%) who chose "I don't like it at all" and 14 respondents (9.3%) chose "I don't like it". For the option "I am neutral", there were 33 respondents (22%) and an incredible number of 62 respondents (41.3%) who chose "I like it". The rest of the 34 respondents out of 150 responses chose "I like it very much" with 22.7%. The mean score for question 6 (a) "How do you like retrieving reinforcement to class activities (Video on certain topic using links) from Moodle (LMS)?" is at a **High** level with a score of 3.68. Last question of the questionnaire, 6 (a) "How do you like retrieving reinforcement to class activities (Video on certain topics using links) from Facebook (Social Media)?" showed that 12 respondents (8%) chose "I don't like it at all" and 35 respondents (23.3%) chose "I don't like it". There were 44 respondents (29%) who chose "I am neutral"

and 39 respondents (26%) chose "I like it". Lastly, 20 respondents chose "I like it very much" to retrieve reinforcement to class activities from Facebook which was 13% of total respondents. The mean score for question 6 (b) is at **Medium** level which at 3.13.

This shows that when retrieving reinforcement activities, where the activities are videos accessible through links, the respondents preferred getting these reinforcement activities through Moodle (64.0%) rather than Facebook (41.3%).

**Thematic Analysis For Open-Ended Questions**

Thematic analysis emphasises on pinpointing, examining and recording patterns or themes within the data in which the themes associated to the study questions are categorised for analysis. For this study, the thematic analysis was used to analyse the only open-ended questions in Section C which is:

"In the question above, you have chosen either Moodle or Facebook as your preference for information retrieval. State your choice and list 3 best reasons for your choice."

The responses were dutifully and comprehensively read and the three themes which emerged were "easy to access", "no distraction" and "academically friendly". Four best responses from answers with each theme were elaborated and explained.

*Easy To Access*

The responses with the theme "Easy to access" indicated that the e-learning platform is easy to use for information retrieval. Most of the respondents agreed that Moodle is a platform that is easy to access in order to retrieve information. Below are some of the responses to this theme:

> *"I choose Moodle because: 1. Easier to access, its information is easier to retrieve and arrange in sequence according to week, and more private, only accessible to students taking this course."* (Respondent 55)

Respondent 55 claimed that Moodle (LMS) is easy to access and at the same time, it provides information that is easy to retrieve. He/she also mentioned that Moodle has a feature which makes it private and it is only for selected classes of students. This makes Moodle exclusive for students and makes the process of information retrieval easier. In contrast, another respondent chose Facebook (Social Media) and stated his reasons differently. Another respondent claimed that:

> *"I choose Moodle and Facebook as information retrieval methods because they are easy to use. It does not cost me money and they have a lot of information."* (Respondent 64)

Respondent 64 chose both Moodle and Facebook as the platform of information retrieval. He/she mentioned that both platforms are easy to use. And also, for him/her both platforms did not cost money to access or retrieve information. He/she also said that both the platforms, Moodle and Facebook contain a lot of related information that he/she could use. Next, the following respondents wrote on how it is easy to use Facebook.

> *"I choose Facebook because the app is easy to access. Second, I am using the apps often. Lastly, nowadays we can get free internet for social media. Facebook is one social media."* (Respondent 66)

Respondents 66 said that Facebook is an easy app to access. He/she supported that with the point that he/she using the apps often. Respondent 66 also mentioned that he/she get free internet for social media on his/her mobile and Facebook is one of the social media that he/she could access using the free internet data. Looking into the next respondent's answer, he/she said differently from the previous respondent.

The three responses above proved that Moodle and Facebook are prominent in the activity of retrieving information amongst students of UPNM. Respondents feels that both platforms are easy to use, but most importantly more respondents chose Moodle over Facebook as they claimed it easier to use the Moodle compared Facebook. Moodle for them is much easier to access since it is in an app form. However, there are some of them who thought Facebook is easier to access and also one or two of them agreed that both of the platforms are easy to use and access.

### No Distraction

The responses in this theme indicated that respondents thought Moodle (LMS) and Facebook (Social Media) have no distraction to do the activity of retrieving information. The theme "no distraction" are categorised from the responses collected. The best responses were picked and explained below.

> *"Moodle is simple and fast. Facebook is distracting, uses a lot of internet data, and so many advertisements on Facebook."* (Respondent 35)

Respondent 35 stated that using Moodle for retrieving information was easier as Moodle's feature is simple and fast. For him, comparing to Facebook, Moodle is not distracting and also if using Facebook to retrieve information, it requires a lot of internet data. He also stated that Facebook contains many advertisements which can cause distraction. The next respondent has almost the same thought about Moodle.

> *"Moodle is a formal system via the University's platform. Nice arrangements for notes. Does not intercept with social media."* (Respondent 93)

According to Respondent 93, Moodle is a formal system in which it is connected to university platform. To the respondents, the Moodle has a nice feature in arranging the course notes. This resulted in easing the users of the Moodle to search for the notes. Moodle also does not intercept with social media, where it does disturb the respondents in searching for academic information. The next respondent supported what has been stated earlier.

> *"The information that I wanted in Moodle, is in sequence according to the topic and week. It is more organised and private for the students of the course. It is easy to access and you will not get distracted with other things compared to Facebook."* (Respondent 95)

Respondent 95 said that Moodle has the extra advantage which the information that they want are already arranged according to topic and the week of study. He also mentioned that the feature on the Moodle where the information is more organised and private for the student to access the information. Lastly, according to Respondent 95, Moodle is an easy platform to access and he/she did not get distracted with other things compared to Facebook.

The three responses stated earlier clearly proved that Moodle (LMS) is prominent in the activity of retrieving information amongst students of NDUM. The Moodle platform is the most chosen way of retrieving information by the respondents. For them, using Moodle as the platform to retrieve information is good as they will not face any distraction compared to Facebook as the latter is specially made for the purpose of socialising. Students are distracted due to the unnecessary information in Facebook compared to Moodle, where all the information are academic only.

***Academically Friendly***

The responses categorised in this "academically friendly" theme indicated that respondents think that both Moodle (LMS) and Facebook (Social Media) are academically friendly platforms that eased the process of information retrieval. This is because the main purpose of the platform is to offer academic information. Thus, most of the respondents found that the better platform to retrieve information is Moodle.

> *"I do prefer Moodle for information retrieval because I do not have a Facebook account. I made Facebook account just for academic purpose at first. For me, Moodle is more suitable to learn or to retrieve information because it does not have any advertisements and more efficient."* (Respondent 17)

Respondent 17 wrote that he prefers Moodle for information retrieval because he does not have a Facebook account. He also mentioned that the Facebook account that he made is for academic purpose only. But personally, Respondent 17 thinks that Moodle is the most suitable platform to learn and retrieve information because it does not have any advertisements and more efficient.

> *"Information on Moodle is directly from course lecturer. It is easier to access from it because the lecturer has put some links on there and it makes the students easy to reach the information. Even though sometimes Moodle cannot be opened because of several factors, it is still a good medium that helps the students know where to go when they need academic information."* (Respondent 2)

Respondents 24 wrote that the Moodle has information which is directly from the lecturer. He also mentioned that using the Moodle is easier to access because the lecturer has put the links there and it made it easier for students to reach the information. Plus, the respondents mentioned that even though Moodle is hard to access sometimes, it is still the best medium in helping the student to retrieve all the information needed. This statement is supported by next respondent.

> *"Although I think both platforms have their very own advantages and disadvantages, I prefer using Moodle as a medium of information retrieval. The reason is, it is purely academic – it is not mixed up with my private stuff, the user interface can be easily understood, and lastly, I can obtain information for every subject."* (Respondent 31)

According to Respondent 31, both platforms Moodle and Facebook have good and bad when using them. Most importantly, he preferred Moodle platform as a medium to retrieve information because Moodle is much more or purely academic where it does not mix with other

things such as business listings or social chats. Lastly, the respondent stated that he could retrieve information for every subject easily.

According to the three themes which emerged from the above, Moodle is preferable than Social Media as it is seen as easier to access, less distraction and more academically friendly.

## Discussion

Findings showed that respondents preferred Moodle (LMS) over Facebook (SM) in all aspects: getting information on syllabus and course assessment, retrieving course notes, announcement, assignments, receiving information through chats, and receiving reinforcement activities using links to videos. Retrieving course notes and assignments have the highest percentages while receiving information through chats has almost the same percentage.

This supports that Moodle is the electronic media which is already accepted as the media for academic where it involves more cognitive processes which induces maximum participation and interest students more. Using Moodle, both the lecturer and students have the ability and skills in planning, organising, managing, and controlling the software to ensure its effectiveness (Sumarwati et al., 2020; Sobral & Peci, 2018)

On the other hand, students do like getting information from Facebook especially in retrieving information through chats. This supports that even as a Social Media, a lecturer can embed educational content in informal learning contexts such as in Facebook. This also demonstrates students' willingness to use Facebook for educational purposes alongside for social purposes. Even Facebook is more used for communication; it can be utilised to communicate knowledge hence strengthened the notion what we can do with the media to disseminate knowledge, especially when we are aware of that Facebook is the biggest social network worldwide with roughly 2.89 billion monthly active users in 2021, 29% between the ages 13-24 years old.

## Conclusion and Recommendations

In conclusion, the responses stated earlier clearly proved that Moodle (LMS) is a more prominent activity of retrieving information amongst students of NDUM. Moodle being the most chosen platform which is said to be "academically" friendly. Respondents mentioned that Moodle provides more academic information that they need as students. The features of Moodle also made the process of retrieving information easier. The thematic analysis of this study seek preference for information retrieval. The themes that emerged from extensive reading of the responses are "easy to access", "no distraction" and "academically friendly". Moodle is easier to be accessed, has lesser distraction, and academically friendly; and is seen as purely academic. Even so, one should not dismiss the existing "technology-enhanced learning" support offered by Social Media such as Facebook. However, research on the phenomena at hand needs to increase in both depth and breadth.

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