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USABILITY ISSUES FOR LEARNING MANAGEMENT SYSTEMS: CASE STUDY, STUDENTS AND TEACHING STAFF PERCEPTIONS

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ABSTRACT

This study contributes to examining AlBalqa Applied University (BAU) teaching staff's and students' views on integrating features of smart learning and social network services into the Learning Management System (LMS) currently used (Moodle). The need of this study arose from the realization that the teaching staff and students' are moving from LMSs to Social Network Sites (SNSs) to achieve academic-related tasks. The aim of this research is to analyse the patterns the teaching staff's and students' usage of LMSs and SNSs, to identify the gaps in the currently used LMS, and to investigate the users' perceptions towards educational value of integrating social networking features into Moodle. Data was collected from students and teaching staff by using mixed method approach: interviews and survey. Obtained information regarding the teaching staff's and students' perceptions toward the used LMS and the SNSs demonstrates the shortfalls of Moodle and determines the SNSs features that have the potential to enhance the usage of the LMS. The results of the study show that although the majority of the teaching staff spend extra time to accomplish an educational task through SNSs, they prefer to use SNSs for announcements and communication, as they believe that SNSs notifies faster than using Moodle. The results were similar for the students, while they trust the Moodle as an academic source, the majority believe that they can access relevant academic content more rapidly when using SNSs. The results emphasize the importance of the development of the features of the LMSs as a unified source for educational process including academic information and collaborative activities.

Keywords: Educational Technology, Social Networking Sites, Moodle, Learning Management Systems

1. INTRODUCTION

E-learning systems play a major role in modern education. The development of these systems has been defined by the recent advances in related technologies, and has moved from using a number of technological tools in an isolated manner towards combining these into a unified learning management system [1,2]. More specifically, elearning has moved from using separate technological tools like video, multimedia, email, etc., to holistic systems such as Learning Management System (LMS) or Social Networks (SNs).

Using LMS as a learning tool offers enormous benefits; it helps to increase student enrollment and encourages student-teacher interaction, as well as

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communication

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[4, 5].

student

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2. BACKGROUND

videos

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real-time

[4].

This transformation in the way educational material is delivered and shared between teachers and learners came from the emergence of a number of requirements, such as the need to overcome limitations associated with rising numbers of students, and associated time and space limitations, as well as the need for efficient methods of communications between all those involved in the educational process, bridging over distances, and offering a degree of flexibility and interaction that was not possible before using traditional lectures limited to the classroom [12].

Higher education institutes have therefore facilitated the use of purpose-designed online learning management systems that allow for the sharing of educational material in a number of ways [13], including online lectures and material, online assignments and assessments, announcements, as well as interaction between teachers and students in a secure online environment. However, the users of such systems have become alert to some shortfalls that limit their use. These include issues with the size of the files that can be uploaded, transfer of from one semester to the next, material communication delays and lack of efficiency of the announcement process, and lack of mobile applications for the used system which limits flexibility [11].

On the other hand, the increasing popularity of social network systems usage in every aspect of modern life has spilt over into the field of education, as students and teachers are using this technology to communicate educational content, announcements, and interact with regard to the educational process [11, 14]. The features of social networks are favored by the users to a degree that leads in some instances to substituting some or all of the functions of learning management system for social network systems in the learning process [15, 16].

From the aforementioned points emerges the importance of evaluating the reasons that lead to suboptimal use of specialized learning management systems by the intended users [17], as well as the features of social network systems that attract their users towards utilizing these platforms for their educational needs, in an attempt to guide the development of improved, customized systems that combine the best of both worlds [14].

3. RATIONALE

Previous studies have shed the light on some of the difficulties associated with the utilization of LMSs [12, 18, 19]. Some of these difficulties are:

providing a reliable source of material for students [3]. However, some existing LMSs have some

practical constrains, such as: lack of instant

messages, notifications, ...), some features only

being available to the administrator like creating a

new course and enrolling students, moreover, some

commercial LMSs are expensive and can not be

Communication has developed with the use of

technology, and information sharing is becoming

much easier. Activities that cannot be done easily in traditional classrooms can easily be done on SNSs

without time or place restrictions, such as sharing

Consequently, social networks have become a vital provider for informal education. Amongst SNSs,

Facebook has become the most popular social

network site worldwide, and it can offer great

proficiency as a teaching and learning tool for many

students who use it daily [3]. For this reason it has

been noticed that students in higher education are

more often using Facebook for educational reasons

Some researchers support the use of new

technological innovations in the educational

process, while others believe that the new

technological innovations (especially social media)

disrupt higher education delivery [6]. As social media can be distractive for some students as well

as facilitating academic dishonesty [7-9], students

and teachers have different perceptions of LMSs

and SNSs. This article investigates the usage of

LMSs and SNSs from teaching staff's and students'

perceptions at Al-Balqa Applied University which

is considered one of the leading universities in

Jordan. This study investigates the reasons for

choosing some SNSs as the medium for teacher-

communication serves; and the dilemmas teachers

and students experience while using the LMS that

lead to the shift of some teacher-student

communication to SNSs; in addition to examining if

The way of teaching and learning in higher

education has evolved in recent years from utilizing

traditional classroom-based methods and referring

to textbooks and lecture material, to using advances in information technology such as computer-based

learning and online systems, whether specifically

designed for educational purposes or otherwise [10,

using SNSs is efficient as an e-learning tool.

and

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communication

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afforded by some schools in the long term [3].

(announcements.

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the lack of interaction between learner and instructor and between learners themselves, inconvenience of LMSs (not user friendly and not easy to use), and absence of informal communication between teacher and learner, moreover, some LMSs are expensive systems on in the long term. In addition, several research papers demonstrate SNSs ability to enhance education in multiple areas, like improving collaboration and and allowing active learning, synchronous interaction between learners as well as between learners and teachers, supporting cooperation between students, as well as being considered more user friendly and easier to use [1, 4, 20-24]. On the other hand, the use of SNSs in the educational process has its drawbacks such as privacy violation of learners and instructors, and attention distraction [1, 20, 22, 23].

From the aforementioned points it becomes obvious that in order to improve the LMSs used, the usage and the users' perceptions towards the improvement has to be assessed prior to embarking on bettering these systems [1, 22, 25]. This assessment is the aim of this research, which is detailed in the four research objectives from lecturers' and students' perspectives:

- To identify the characteristics of the currently used LMS for delivering the courses content, and how useful these characteristics are in facilitating the learning process.
- To assess the students' and lecturers' usage and their satisfaction with the current system used in their learning process.
- To recognize the drawbacks of the existing LMS and SNSs as educational tools.
- To investigate the usefulness of integrating SNSs features into the current LMS with regard to alleviating some of these drawbacks, and to improve the users' learning experience.

4. METHODOLOGY

The aim of this study is to analyze both lecturers' and students' usage and satisfaction of the LMS (Moodle) used in the university and SNSs (Facebook, Twitter, Linked in, Youtube, etc.), and their perceptions toward the features and tools provided in each system. It also aims to identify the major functions that are missing in the LMS that lead to some students and lecturers using SNSs for educational purposes. Finally, it investigates the students' and lecturers' views regarding the benefit of incorporating social networking features in the LMS through Mobile Learning (m-learning).

The methodology is a mixed method research utilizing qualitative and quantitative methods consisting of interviews and questionnaires.

4.1 Population And Sample Selection

The population for this research are the students and lecturers in The Computer Graphics and Animation Department in Information Technology Faculty in Al Balqa Applied University in Jordan. This particular department was chosen because of the features of the multimedia data used for its courses (text documents, images, videos, etc.), as it requires various file types (usually big sizes) to be shared.

The sample collection selection was based on the teaching staff and students' participation, the questionnaire was prepared and distributed online among the Computer Graphics and Animation Department lecturers and students. The total number of the participants who filled the questionnaire was 10 teaching staff (all the department teaching staff) and 46 students (out of 90 students in the department). Their participation was voluntary and they received no compensation.

4.2 Instrumentation

A focus group of 15 academic staff members and students of the Computer Graphics and Animation Department were interviewed, examining the current usage of LMS and SNSs, the obstacles observed by students when utilizing the LMS in the learning process, and their views on the use of the SNSs.

The outcome from the users' (teaching staff and students) responses in the conducted interviews summarizes the difficulties that they face as follows:

The limitation of the file size that can be shared on Moodle, which hinders the teaching staff's ability to upload materials, and leads to limitations with regard to the students' projects. This prompts the teaching staff and students to use other systems to share material content.

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calls, emails, SNSs,...).

notifications, ...).

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The difficulty to backup material from one semester to the other. This means that each semester the teaching staff have to do the whole process again for each course. The difficulty of using communication tools which leads the students to communicate with the teaching staff through other ways (Phone

(Question3).

Other _

Youtu

be

30%

10%

Figures 1 and 2 demonstrate the responses to questions 4 and 5. And the results of question 4 show that the most commonly used website by the teaching staff is Facebook with the percentage of 60%.

Q4. What is the Social

Network Site that you use

the most?

remaining has 20% for each group (1-5, 6-10, >20)



Students and teaching staff prefer to use mobile applications (faster for announcing, instant

Following the formulation of the questionnaires, they were disseminated online to a group of faculty members and students. Both questionnaires have 3 categories: demographics, LMS nature and usage, and SNSs usage.

5. DATA ANALYSIS

5.1 Statistical Treatments

Qualitative analysis of the interview data was utilized to formulate the 4 main research objectives and to develop the 2 questionnaires (Teaching staff/Students). The data obtained from the two questionnaires (Teaching staff/Students) were then analyzed quantitatively using Statistical Package for Social Sciences (SPSS).

5.2 Teaching Staff Questionnaire

5.2.1 Sample demographics (part I, questions 1-6) – teaching staff questionnaire

The teaching staff questionnaire included 18 questions (divided into the following categories: demographics (questions 1-6, Table 1), learning management system usage (questions 7-11, Table 2), and SNSs usage (questions 12-18, Table 3).

The gender distribution of the 10 teaching staff that completed the questionnaire shows the percentage of 20% female and 80% male

Figure 1: Responses To Question 4 "What Is The Social Network Site That You Use The Most?"

Facebo

ok 60%

Responses to question 5 demonstrates that 40% of the teaching staff use the internet on a daily basis for 30 minutes - 1hour and the same percentage also use the internet for 1-3 hours, the remaining two groups (3-6 hours and >6 hours) has the percentage of 10% each.



Figure 2: Responses To Question 5 "I Spend Time Using Internet On Daily Basis For:"

The responses for question 6 were: 80% of the participants were Assistant Professors and 20% were Associate Professors.



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5.2.2 Current LMS usage (part II, questions 7-11) and SNSs usage (Part III questions 12-18)– teaching staff questionnaire

The second part explores the teaching staff views and usage of the currently used LMS (Table 2). The third part investigates the teaching staff views and usage of the SNSs in education (Table 3).

Cronbach's Alpha

Cronbach's alpha was calculated to be 0.802 as shown in Table 4. As the internal consistency for our scale with this specific sample is more than 80% the result can be accepted and generalized.

Table 4: (A) And (B) Result Of Cronbach's Alpha

(A) Case Processing Summary

		Ν	%
Cases	Valid	10	100.0
	Excluded ^a	0	.0
	Total	10	100.0

a. Listwise deletion based on all variables in the procedure.

(B) Reliability Statistics

Cronbach's Alpha	N of Items		
.802	12		

Percentage analysis for each question

Table 5 demonstrates the percentage analysis for questions (7-18). The results show that although teaching staff use Moodle to upload but material for announcements and communication they believe that the LMS requires improvement, as 50% of the participants believe that using SNSs improves communication with students and colleagues, 70% believe that SNSs notifies faster than using Moodle, and 60% view the addition of social networking features by utilizing Mobile Learning (m-learning) will enhance Moodle usability. However, 60% of the teaching staff get distracted while working by the presence of content unrelated to the task in question.

5.3 Students Questionnaire

5.3.1 Sample demographics (part I, questions 1-6) – students' questionnaire

The students' questionnaire included 17 questions (divided into the following categories: demographics (questions 1-6, Table 6), learning management system usage (questions 7-11, Table 7), and SNSs usage (questions 12-17, Table 8).

The gender distribution of the 46 students that completed the questionnaire shows the percentage of 50% female and 50% male (Question1). And for the academic year 65% are in their second year, 24% are in their first year, 9% are in their third year, and 2% are in their fifth year (Question 2). The majority of the students ages were between 20-22 years with the total percentage of 48%, and 44% were between 18-20 years, and the remaining were between 23-26 years and >26 years with 6% and 2% respectively (Question 3).

Figures 3 and 4 demonstrate the responses to questions 4 and 5. And the results of question 4 show that the most commonly used website by the students is Facebook with the percentage of 59%.



Figure 3: Answers To Question 4 "What Is The Social Network Site That You Use The Most?"

Responses to question 5 demonstrates that 17% of the students use the internet for daily basis for 30 minutes - 1hour and 26% use the internet for 1-3 hours, the remaining two groups (3-6 hours and >6 hours) has the percentage of 33% and 24% respectively.

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Figure 4: Answers To Question 5 "I Spend Time Using Internet On Daily Basis For:"

The responses for question 6 shows that the majority of the students use Moodle to download materials frequently (Daily and once a week with a percentage of 20% and 50% respectively) as demonstrated in Figure 5.



Figure 5. Answers To Question 6 "I Use Moodle To Download Materials And Academic-Related Work"

5.3.2 Current LMS usage (part II, questions 7-11) and SNSs usage (part III questions 12-17)– students' questionnaire

The second part of the students' questionnaire explores their views and usage of the currently used LMS (Table 7). The third part of the students' questionnaire investigates their views and usage of the SNSs in education (Table 8).

Cronbach's Alpha

Cronbach's alpha after analysis was found to be 0.894 as shown in Table 9. As the internal consistency for our scale with this specific sample is more than 89% the result can be accepted and generalized.

Table 9. (A) And (B) Result Of Cronbach's Alpha

(A) Case Processing Summary

		Ν	%
Cases	Valid	46	100.0
	Excluded ^a	0	.0
	Total	46	100.0

a. Listwise deletion based on all variables in the

procedure.

(A) Case Processing Summary

		Ν	%
Case	Valid	46	100.0
s	Excluded ^a	0	.0
	Total	46	100.0

a. Listwise deletion based on all variables in the

procedure. Percentage analysis for each question

Table 10 demonstrates the percentage analysis for questions (7-15). The results show that 45% of the students prefer to use academic websites to get academic-related material (Question 7), and only 30% are satisfied with the options that Moodle provides regards getting material, assignments submission process, and announcements (Question 8). The responses percentage was also low (24%) for students' satisfaction about the options that Moodle provides regards communication between students and lecturers (Question 9). However, 48% of the students trust academic websites to get academic-related material more than SNSs (Question 10). When students were asked about organization of Moodle and ease of getting access to information only 28% agreed (Question 11).

For the SNSs usage, 67% of the students believe that SNSs (Facebook, Youtube, ...) is faster to get any academic related information (Question 12). 41% of participants consider that SNSs are a safe environment for sharing ideas and resources (Question 13). However, 43% of participants spend extra time browsing for unrelated information to the related task when they wait to accomplish an educational task on social media such as Facebook (Question 14). 45% of the participants believe that integrating social networking features in the LMS through Mobile Learning (m-learning) will enhance Moodle usability (Question 15).

Responses to question 16 demonstrate the reasons behind the use of SNSs for communicating

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as shown in Figure 7.

process.

6. DISCUSSION AND RESULTS

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especially designed to share academic-related material.

This reflects findings in previous literature [1, 12, 20-24], some suggested that an integrated methodology of both LMSs and SNSs enhances the user experience of the LMSs [1, 12].

• Research Objective Four: To determine if adding SNSs features to the current LMS can alleviate these drawbacks, and add value to the users' experience.

Students and teaching staff responses justify improving current LMS with easy to use communication tools as well as implementing a mobile- based learning system (m-learning) [12, 25]. Students and teaching staff acceptance is the foremost step that paves the way for imbedding a new technology into the educational process [12].

7. LIMITATIONS

The aim of this study is to examine the reasons behind the usage of SNSs in the educational process, the current usage of LMS, its shortfalls, and whether embedding SNSs features in LMSs can improve LMS usage. However, this study involved teaching staff and students of one department within one university, which infers that the results should be explicated with caution when it comes to generalizing its outcomes.

8. CONCLUSIONS

Social network sites have gained significant importance in the education field, especially for the educational content distribution and creation, and in the communication between the teaching staff and students.

This study aims to answer four research questions by identifying the features of the current LMS, assessing the students and lecturers usage and satisfaction of the used LMS and SNSs, identifying drawbacks of the existing LMS, and establishing whether the addition of SNSs features to the current LMS can alleviate theses drawbacks and improve the educational experience.

The results revealed the shortfalls in the current LMS (difficult to communicate between students and teaching staff especially for instant notifications, and the complicated structure of Moodle and the limitation of uploaded file size) that cause the students and teaching staff to resort to SNSs and other systems. However, although the majority of students believe that SNSs are faster to

were revealed regarding the options that Moodle provides in terms of getting material, assignments submission process, announcements, and communication between students and lecturers. Furthermore, the majority of students were not satisfied with the organization of Moodle and ease of access to information. The aforementioned shortfalls were consistent with previous study done in the same area which explored that the use of LMSs is usually limited, LMSs are very expensive systems, do not support social constructivist approach (emphasize individuals to construct knowledge), and the difficult structure of the LMSs [12, 23, 24].

with lecturers as shown in Figure 6. Responses to question 17 demonstrate the reasons behind the use

of SNSs for communicating with their colleagues

Research Objective One: To identify the

characteristics of the existing LMS used to

deliver the courses material, and how these

characteristics facilitate the educational

Moodle is the LMS used in AlBalqa Applied

University. The interviews and questionnaire replies

indicate that the current used LMS is a trusted

source for materials, however, several shortfalls

- Research Objective Two: To assess the students' and lecturers' usage and satisfaction of the used LMS and SNSs.
- Research Objective Three: To detect the drawbacks of the existing LMS and SNSs.

The responses from the interviews highlighted shortfalls regarding the LMS amongst the students and teaching staff. These were explored further in the questionnaire. They believe that the existing LMS does not provide easy to use tools for communication and announcements, and that there are limitations that lead the teaching staff and students towards using other systems to share course-related information (file size).

And for the SNSs, students and teaching staff believe that SNSs are easier and faster for communication and announcements, however, the disadvantage that they face is that SNSs distracts the users from the required task, as it is not



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get any academic related information, they trust the LMSs more as a source of academic-related material. Furthermore, the majority of the students do not consider SNSs a safe environment for sharing ideas and resources and they waste more time when accomplishing an educational task on social media.

This research also demonstrates that the students and teaching staff prefer the use of mobile applications in the educational process and they are willing to accept the introduction of m-learning. This will unify the source of information for the students and the content ownership of the exchanged materials, discussions, and any other information will be for the university. Moreover, all the shared information will be related only to university issues, which will diminish students' distraction and keep them focused.

The outcome of this study recommends the improvement of the LMS used by embedding easy to use communication and notification tools, as well as enhancing the design of the LMS. Furthermore, it recommends the introduction of m-learning which will enhance the usability of the LMS. These findings pave the way for improving the current LMS.

9. **RECOMMENDATIONS**

Recommendations For Further Study

Although this research shows encouraging results regarding the advantages of embedding SNSs in LMSs, further studies in this subject are required to be able to generalize these results:

- 1. Several studies should be conducted on samples of students and teaching staff in other faculties within the same university in addition to other institutions and areas to compare results.
- 2. More research is required to assess the actual usage of the current LMS and the pages/groups on SNSs.
- 3. Further research should involve the implementation of the suggested changes by incorporating them into the existing LMS, and to assess their benefit by conducting a comparative evaluation between the current LMS and the improved system.

Recommendations For Practice

This study went through the theoretical part of examining teaching staff and students' perception towards current LMS, and several shortfalls were identified. Though, further steps should be taken to proceed with the practical part in:

- 1. Embedding SNSs features in current LMS.
- 2. Implement a customized LMS system (this will reduce the long term cost on the university, and the system users will be more satisfied) as well as mobile-based learning system, as m-learning will afford social networking features this will enhance the interaction between learner-learner and learner-instructor.
- **3.** The technical requirements for improving the LMS and the transitional plan for implementing the new LMS.

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Table 1: Teaching Staff Questionnaire Demographics Questions

	PART I: Teaching Staff Demographics						
No.	Question	Answer		~ •			
1.	What is your gender?	Female	Female		Male		
2.	What age group are you in?	25-30	31-36	37-45	46-52	>52	
3.	How many years of experience do you have?	1-5	6-10	11-15	16-20	>20	
4.	What is the Social Network Site that you use the most?	Facebook	Twitter	Linked in	Youtube	Other	
5.	I spend time using Internet on daily basis for	<30 minutes	30 minutes –1 hour	1-3 hours	3-6 hours	>6 hours	
6.	What is your academic degree?	Lecturer	Assistant professor		Associate professor	Professor	

 Table 2: Teaching Staff Questionnaire: Questions About Learning Management System Usage. Teaching Staff Were

 Asked To Rate Their Responses On A 5-Point Likert Scale As Follows: (1) Strongly Disagree (2) Disagree (3)

 Moderate (4) Agree (5) Strongly Agree.

PART II: Current Learning Management System Usage by Teaching Staff			
Question	Question		
No.			
7.	I use Moodle frequently to upload materials.		
8.	I am satisfied with the options that Moodle provides to contact students.		
9.	I think communicating with my students through Moodle doesn't violate my privacy as much as in SNSs		
	(Facebook, Twitter, Linked in, Youtube, etc).		
10.	I use Moodle frequently for announcements.		
11.	Moodle is well organized and I can get any information easily.		

 Table 3: Teaching Staff Questionnaire: Questions About SNSs Usage In Education. Teaching Staff Were Asked To Rate

 Their Responses On A 5-Point Likert Scale As Follows: (1) Strongly Disagree (2) Disagree (3) Moderate (4) Agree (5)

 Strongly Agree.

PART III: SNSs Usage in education by Teaching Staff			
Question	Question		
No.			
12.	I use SNSs in my everyday life.		
13.	I think using SNSs will improve my communication with students and colleagues.		
14.	I think using SNSs will notify my colleagues faster than using regular mail system or Moodle		
	messages.		
15.	When it is difficult for me to communicate with my students using academic websites, I choose SNSs		
	to perform the task.		
16.	When I want to accomplish an educational task on social network sites such as Facebook, I spend		
	extra time browsing for unrelated information to the related task.		
17.	Using SNSs is an effective teaching/learning tool.		
18.	I think integrating social networking features in the LMS through Mobile Learning (m-learning)		
	will enhance Moodle usability.		



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Question / Percent	Strongly Disagree	Disagree	Moderate	Agree	Strongly Agree
Q7			10	60	30
Q8		20	40	10	30
Q9		10	10	50	30
Q10		20	50	30	
Q11			60	30	10
Q12		20	30	30	20
Q13		30	20	30	20
Q14		20	10	40	30
Q15		30	20	20	30
Q16		10	30	50	10
Q17	10	10	50	30	
Q18			40		60

Table 5: Percentage Analysis For Questions (7-18)

Table 6: Students'	Questionnaire:	Demographics	Questions
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PART I: Students Demographics							
Question No.	Question	Answer					
1.	What is your gender?	Female Mal			e		
2.	Your academic year is:	1	2	3	4	5	
3.	What age group are you in?	<18	18-20	20-22	23-26	>26	
4.	What is the Social Network Site that you use the most?	Facebook	Twitter	Linked in	Youtube	Other	
5.	I spend time using Internet on daily basis for	<30 minutes	30 minutes – 1 hour	1-3 hours	3-6 hours	>6 hours	
6.	I use Moodle to download materials and academic-related work:	Daily	Once a week	Once a month	Once in the semester	Irregularly	

Table 7: Students' Questionnaire: Questions About Learning Management System Usage. Students Were Asked To Rate Their Responses on A 5-Point Likert Scale As Follows: (1) Strongly Disagree (2) Disagree (3) Moderate (4) Agree (5) Strongly Agree.

PART II: Current Learning Management System Usage by students				
Question	Question			
No.				
7.	I prefer to use academic websites (Faculty Website, Moodle, Faculty members webpages,) to get academic-related information			
8.	I am satisfied with the options that Moodle provides regards getting material, assignments submission process, and announcements.			
9.	I am satisfied with the options that Moodle provides regards communication between students and lecturers.			
10.	I trust academic websites to get academic-related material more than SNSs (Facebook, Twitter, Linked in, Youtube, etc).			
11.	Moodle is well organized and I can get any information easily.			

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Table 8: Students' Questionnaire: Questions About SNSs Usage In Education. Students Were Asked To Rate TheirResponses on A 5-Point Likert Scale As Follows: (1) Strongly Disagree (2) Disagree (3) Moderate (4) Agree (5) Strongly Agree.

PART III: SNSs Usage in education by Students				
Question	Question			
No.				
12.	I think SNSs (Facebook, Youtube,) is are faster to get any academic related information.			
13.	SNSs are a safe environment for sharing ideas and resources.			
14.	When I wait to accomplish an educational task on social media such as Facebook, I spend extra time			
1.5	browsing for unrelated information to the related task.			
15.	I think integrating social networking features in the LMS through Mobile Learning (m-learning) will			
	enhance Moodle usability.			
	PART III: SNSs Usage in education by Students			
Question	Question			
No.				
16.	<i>I prefer to use SNSs to communicate with my lecturers because:</i>			
	get faster responses			
	Les required steps			
	Accessibility (Via smartphones) is easier than e-learning			
	Other			
	Lide not contact my instructors via SNSs			
17.	use SNSs to contact my colleagues because:			
	Trimproves our communication			
	\Box_{a} t the latest news related to my faculty			
	Faster notifications			
	Δc pessibility (Via smartphones) is easier than e-learning			
	Orler			
	LLd not contact my Colleagues via SNSs			

Question / Percent	Strongly Disagree	Disagree	Moderate	Agree	Strongly Agree
Q7	4	13	37	28	18
Q8	9	20	41	16	14
Q9	17	33	26	17	7
Q10	7	17	28	26	22
Q11	11	17	44	24	4
Q12	2	7	24	30	37
Q13	4	13	41	26	16
Q14	7	7	43	28	15
Q15	10	15	30	25	20

Table 10. Pe	prcentage	Analysis	For	Ouestions	(7 - 15)
10010 10.16	criteniuge	ппигузіз	101	Questions	$(7^{-1}J)$

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Figure 6: Responses To Question 16: "I Prefer To Use SNSs To Communicate With My Lecturers Because:"



Figure 7: Responses To Question 17: "I Use SNSs To Contact My Colleagues Because:"