LEARNING COMMUNITY FOR POSTGRADUATE LEARNERS IN THE FINAL YEAR PROJECT COURSE OF OPEN UNIVERSITY MALAYSIA

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ABSTRACT

The learning community approach offers a promising way to facilitate the learning process of postgraduate learners in their final year project course at the Open University Malaysia. This is important because the final project requires a substantial amount of commitment and needs to be carried out independently. Moreover, students often experience challenges that delay or prevent them from completing their projects. Therefore, integrating a learning community into the course to address administrative or academic matters with peers and faculty members assists progression and completion. The purpose of this study was to gain insight into the learning community used by postgraduate learners for the final year project course. A survey was administered to 52 postgraduate learners and observation of the community site was conducted. The results were positive and encouraging, especially when learners tried to make sense of the learning community in order to be connected and motivated, to receive continuous support and to learn the required knowledge for the course.

Keywords: *Learning community, final year project, postgraduate learners, Google+, distance education*

INTRODUCTION

The final year project course is a substantial piece of work that requires skills in problem solving, research methods and report writing. A good final year project starts with the formulation of a problem, suggests alternative or working solutions, and then implements one of these solutions by producing a project report. Despite the importance of the course, the completion rate within the allocated period of two semesters is a major problem. Table 1 shows the graduation record of the programme and the average number of semesters taken to complete the final project. In brief, the results show that a majority of the learners took more than two semesters to complete the project. There are also extreme cases where learners have taken more than ten semesters for to complete their project.

Table 1: Final Year Project Completion Result

FST Programme	Number of Graduated Students (Total 202)	Average # Semesters for Project Completion
Master of Occupational Safety and Health Risk Management	30	4
Master of Project Management	79	5
Master of Multimedia Communication	22	6
Master of Science in Competitive Intelligence	12	5
Master in Information Technology	59	4

Successful completion of the course is crucial to demonstrate a learner's ability to grasp a wide range of knowledge and skills during the programme, and his/her ability to research problem using scientific methods and write a report. In this regard, the university has emphasised the use of the Learning Management System (LMS) to bridge the challenges faced in assisting the learning process during the final year project course. It is expected that through this platform, learners and facilitators will be able to collaborate and acquire in-depth knowledge by participating, questioning, inquiring, and discussing.

Although there is much enthusiasm in promoting the LMS, facilitating the learning process over an extensive duration of study with learners from different semesters and programmes is very challenging. The first is inaccessibility to the LMS whenever learners take more than two semesters to complete. The second reason is the time consuming process required to classify, access or extract learner's information who registered for the course in the LMS whenever needed. This is because the information may come from various semesters and programmes offered by the faculty. Furthermore, the information extracted in the LMS might not be that accurate, particularly if registration for the final project has not been made. Thus, it is challenging for the faculty to reach all learners to give them any new information regarding the course.

The purpose of this study was to gain insight into the learning community site created to assist the learning process of the postgraduate learners in the final year project course. Discussion of the study is concerned with how the final year project course were carried out. A new learning community site known as Master Project Community using the Google+ application was created and evaluated to assist student learning during the course. This effort was aimed at improving the effectiveness of the academic support provided for the final year project students.

LITERATURE REVIEW

As part of their graduation requirements, postgraduate learners in the Faculty of Science and Technology, Open University Malaysia need to carry out the final year project course independently, over a period of two semesters or eight months in their final year of study. Students are required to register for the course through the university system in their fifth semester and consecutive semester(s) until completion. The course objectives are for students to demonstrate a wide range of skills learned during course of study by producing a report that conforms to the programme standard, to produce multidisciplinary research through the integration of material learned in several courses, and to develop their problem solving and report writing skills. The final year project report needs to be structured

according to five chapters, which are introduction, literature review, methodology, findings, and discussion and conclusion. The project counts for 15% weightage of the learner's overall performance in the postgraduate programme.

Communities can be defined as "groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly (Wenger, McDermott, & Snyder, 2002) or "groups of people with common interests and practices that communicate regularly and for some duration in an organised way over the Internet through a common location or mechanism" (Ridings, Gefen, & Arinze, 2002). Keeping in line with these definitions, a learning community site known as Master Project Community was created to assist learners in progressing and completing their final year project course using Google+ application provided by Google, Inc.

There are many new platforms that can be utilised for learning communities, including Facebook, LinkedIn, Twitter, Blogspot and Google+. Previous research has offered a number of possibilities in the use of Google+ application for educational use. Collins, Koning, and van de Velde (2016) have used a Google + community for collaborative learning related to European public health issues. Also, Leone and Biancofiore (2015) have leveraged teamwork efforts among professionals using Google+ while Puig-Ortiz, Pàmies-Vilà, and Miralles (2015) carried out cooperative laboratory activities between universities using Google+ as a tool. Yensen (2012) suggested using Google+ to provide mentoring and performance support for graduate students. The use of Google+ site provides an easy-to-use environment in which the creator can control access to teaching materials and members' participation. Even though the site can be designated to Private, in which the contents are only shown to members, the site discussed in this paper was set as a Public Community site, where contents are visible to everyone and no permission is required to participate.

Through the community site, the postgraduate colloquium event was introduced with the intention to motivate learners to complete their projects and to learn report writing skills. In this study, two colloquiums were conducted, consisting of progress presentations, parallel sessions and discussion sessions with the coordinator. Briefly, progress presentations enabled learners to present their progress. Parallel sessions covered relevant topics, namely, Problem Statement, Literature Review, Methodology, Findings and Discussion. Special attention was given in the parallel sessions to ensure that the materials were easy to understand, simple and effective. Efforts to link and adapt the knowledge that learners had acquired in research methods to report writing during the event. Learners were invited to join the parallel sessions according to their preferences or topics that they were working on. Finally, the event ended with programme coordinators' meeting to further discuss challenges or concerns faced in conducting the course. Colloquium participation, announcement, attendance confirmation and materials were shared through the site.

RESEARCH METHOD

This study created a learning community site with the objective of assisting the learning process of the postgraduate learners in the final year project course in Faculty of Science and Technology programmes at Open University Malaysia. In the initial phase of setting the community, email invitations were sent to the learners to encourage them to join the community, regardless of whether they had just started or had already been working on their project for many semesters. In order to increase the participation and members in the community, the faculty made a consistent effort to email the invitation every semester to learners who just started the course. The community reached out to more than three hundred members.

In seeking insights on the learning community, this study used two types of evaluation methods. The first evaluation was a survey instrument, administered to learners who had successfully completed and submitted their final year project in 2016. This survey instrument was designed to gain feedback on demographic characteristics of participants, learning community site experience, the postgraduate colloquium and their learning experience during the final year project.

A total of 118 learners registered for the course in 2016. However, the focus of the sample size was limited to learners who had submitted their final year project to the faculty in that year, which was 64. This is justifiable as the response will be much more reasonable for participants who have experienced writing the final project successfully. Since participation was on voluntarily basis, only 52 learners participated. This represented an 81% response rate among the participants. Participants were assured of the confidentiality of their responses. The survey result was analysed using descriptive statistics and analysis of responses to open-ended questions.

The second evaluation method involved observation of the learning community site. The site activities were categorised to indicate interaction or learning that has taken place during the course.

FINDINGS

The findings of this paper are discussed in relation to the survey instrument and observation of the learning community site. The survey findings are presented in four sections, namely, participant characteristics, learning community, postgraduate colloquium and final year project learning experience.

Participant Characteristic

A total of fifty-two participants responded to five demographic questions which covered: programme, age, gender, sector and working background.

The descriptive data in Table 2 indicates that the majority of participants successfully submitted their final project, from the programmes of Master of Occupational Safety and Health Risk Management (MOSHRM, 55%), Master of Project Management (MPM, 29%), Master in Information Technology (MIT, 10%) and Master in Quality and Management (MQM, 6%). In terms of age, most participants were y 40 years old (50%) and 31-39 old (32%). Gender was equally distributed. Participants were mostly from the private sector (90%) with working backgrounds mainly in oil and gas (21%), information technology (17%), manufacturing (15%), education (13%) and construction (12%).

Table 2: Demographic Characteristics of Participants

Characteristics	Group	Cases	Percentage
Programme	MOSHRM	29	55.7
	MPM	15	29
	MIT	5	10
	MQM	3	6
Age	<=30 years	3	5.7
	31-39	17	32.6
	>=40	26	50
	>=50	6	11.5
Gender	Female	25	48
	Male	27	52
Sector	Private	47	90
	Government	3	6
	Government Link Company	2	4
Working Background	Information Technology	9	17
	Oil and Gas	11	21
	Manufacturing	8	15
	Safety and Health	4	8
	Education	7	13
	Construction	6	12
	Medical	3	6
	Telecommunication	2	4
	Not Working	2	4

Learning Community

This section describes participants' experience using the learning community site in their final year project course.

Table 3: Learning Community Experience

Learning Community Experience	Mean	SD
Q1. It is easy to use the community site	4.12	0.85
Q2. The information in the community site is well organised	3.72	0.91
Q3. I would find it is easy to communicate with peers and faculty member using the community site	4.16	0.57
Q4. It is easy to get latest faculty information and activities from the community site	4.81	0.39
Q5. I would find the information in the community is very useful for writing my final project report	4.23	0.43
Q6. I would find being in the community motivates me to progress through my project	4.49	0.55

Table 3 shows the mean and standard deviations for all the items measuring learning community experience. These six items were rated on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Basically all of the means were greater than 4, ranging from 4.12 to 4.81, indicating that the participants largely find that learning community is easy to use, easy to communicate and get information on the site, that the community provides useful resources and motivates them towards project progression. However, item 2 had the lowest mean, that is 3.72. The low mean value was due to the new features offered in the site that requires extra time to become familiarised with. Nevertheless, it can be concluded

that the participants have positive perceptions of their experience of using learning community site to assist them in the course.

Postgraduate Colloquium

Participants who were members of the learning community also participated in the colloquium. Even though participation was on a voluntary basis, full participation indicates that the learners were very much in need of faculty support to guide them or motivate them towards project progression.

One question was asked in the survey to examine how the colloquium helped them in writing the final year project. All participants appeared to highly value the colloquium. For example, some of the responses to this question include the following:

> *"..The guidance provided help in completing my project", "..Provide overall idea and guide on how to proceed", "..Able to visualise the framework needed and guideline, "..the facilitator give details on how to work on the project", ".. its really help me to understand on how to write the project report"*

Learning experiences, challenges and suggestion

The survey questions also asked participants to describe their learning experiences, challenges and suggestion for improvement related to their experience while working on their projects. The feedbacks from the learning experience aspect were very positive, with most participants finding the course has improved or is relevant to their daily job, motivation and commitment resulting from their participation in the community and disclosure of their desire to further pursue higher education. Examples of responses include the following:

> *"…Writing for final project enhance my knowledge and improve my daily job","…Field work experiences especially during interview session", "..Working on final project required high motivation to finish it", "..Guidance from supervisor is important and definitely it is tough", "...Being in the project community makes me remind me to work on the project always", " ..Feeling grateful for the faculty support and willing to pursue PhD with the university"*

The challenges mentioned by participants indicate the various reasons which could lead to delays in project completion, such as limited time, work commitments and poor writing skills. However, time limitation appeared to be the most common reason. Examples of responses are as follows:

> *"…Too many commitments at the same time to complete the project", "It is hard to write in English", "…Having difficult time to start off with project because of lack of writing skills", "…. My time schedule of work is very tight. Not be able to manage study and work effectively", "…A lot of commitment at work, thus need to focus and dedicated time to complete the project", "….Enjoy their learning journey but it is hard to commit work and study effectively", "….motivated to complete but yet it is challenging to write the report", "....taken too much time to decide on the project title"*

In terms of participants' suggestion for improvement to the course, participants highlighted factors such as having working groups, providing clear information and providing continuous support. Examples of responses include the following:

> *"….to form small working group among learners with assistance of faculty academic supervision", "….to offer the final project course in the early*

semester rather than in the fourth semester, this initiative will give more time for student to complete the project", "….detail of final project requirement such as registration, submission and presentation need to be informed early of the semester", "….more project workshop need at various learning centre", "….frequently conduct colloquium as part of the continuous support", "… consistent support needed through the community", " ... need to share the information with supervisor regarding formatting and style of writing"

Community Site Observation

This section reports the observation of the learning community site. The activities conducted on the site were categorised as listed in Table 4. The community administrator made consistent effort in categorising the postings accordingly for easier reading and searching.

Table 4: Categories of Site Activities

Category	Activities
Administration	• Administration guidelines for nomination of supervisors and guide to project submission. • Academic guidelines about details needed for each chapter of the final project. • Sample of academic transcript. • Fee schedule for all master programmes by semester • Master's Project Evaluation template • Sample titles of Master's project (IT & Science) • Supervisor list
Announcement	• Project presentation date by semester • Supervisor nomination closing date • Project submission closing date by semester • Convocation date
Discussion	Among discussions highlighted: • Learning statistics • Research methods • Questionnaire design • APA referencing style guide • Sample of report • Research direction • Writing research objective and questions • Writing literature review • Research process cycle • Identification of research problem • Various types of research
Sharing	Among concerns highlighted: • Activities conducted in Faculty of Science • Motivational quotes • Concerns raised by learners • Learning skills
Colloquiums	Contents in this category include: • Template for Progress Presentation • Administrative Matters slides • Research Design, Chapter 1 to Chapter 4 slides • List of participation attendance • Images captured during the events

Apart from categorising the activities, observation was made regarding the number of posting. Overall, the number of posts increased significantly in several periods of the learning cycle such as 1) when it is close to project submission closing date; 2) when it is close to project presentations, as learners asked more questions about administrative processes such as extension of deadline, report submission checklist and template for project presentations; 3) when learners have just started their project whereby the enquiries touch on project title, sample of project report and supervision matters. Finally, the highest posting was recorded two weeks before the postgraduate colloquium as learners needed to register through the site to confirm their attendance.

DISCUSSION

Having a community is associated with being connected, sharing acquired skills and knowledge and seeking continuous support. Taken together, the results are very positive and encouraging. Previous studies have shown the importance of a sense of community in learning. Song, Singleton, Hill, and Koh (2004) found that learners felt the formation of a community facilitates their learning. However, having a face-to-face meeting at the beginning of the course would encourage this process. A study by Rovai (2002) identified a significant relationship between students' perceived sense of community and perceived cognitive learning. The stronger the online learners' sense of community, the less isolated they felt. Ridings and Gefen (2004) highlighted that "information exchange" is the most common reason people join communities, followed by either social support or friendship. Also Wang, Kraut, and Levine (2012) suggested that "informational support" is the key reason people joined a support group, but "emotional support" from fellow members was a key reason they stayed. The participants' positive response and experience in this study are similar to what has been identified in previous research. Apart from the findings, more than three hundred members who voluntarily joined the community prove that learners are making sense in the community for project guidance and progression. Moreover, the effort to gather all learners who have registered for the final project regardless of their programmes or current semester allowed the faculty to be in control to provide timely response to their needs and enquiries through the learning community site.

Observation from the community site indicated that postings were structured according to similar or related content, which makes it easy for learners to search for and read the information needed. The more enquiries or concerns raised by learners, whether about administrative or academic matters, the more comprehensive and structured content the community can offer to fulfil learners' needs, not only in their current semester but also during their upcoming semesters doing their project. The active interactions during certain periods of learning cycle, may be related to the learners who as working adults have high work commitments and therefore do not have the time to continuously interact in the community. What they need most is the ability to use relevant knowledge to actually perform the task (Varma & Marler, 2013). However, it is interesting to note that the high level of participation in community activities when the colloquium was conducted. This indicates that learners are very much in need of continuous support and to be connected with their peers and their faculty.

Several advantages and challenges faced by learners while working on the final year project course were identified. On the one hand, learners had positive perceptions, and felt motivated and committed towards completing their projects, while on the other hand, learners found it very challenging to cope between work and study, and had very limited time for the course. Hill (2002) indicated that studying and working at the same time can have an impact on learning success. She also suggested that a regular schedule be established for engaging learning in an online context. According to Hill (2002), by putting into place basic

time management strategies, learners can improve their overall learning experience. Working adult learners from various industrial services, namely, manufacturing, oil and gas, telecommunication, construction and many more, have many commitments at their workplace. Many learners in this study work long hours at the client site or offshore. These learners have limited access and time to comfortably read articles and write their final year projects. This study reinforces the importance of time management strategies through the community site and colloquium to facilitate their learning process. Industry-based postgraduate projects offer much potential as their project often involves real industrial processes. This can potentially lead to interesting projects that contribute useful findings or discoveries that can be practised in or adapted to the real-world context.

CONCLUSION

The final year project course in open and distance education requires a higher level of commitment from learners compared to single courses taken in the programme. This commitment that needs to be carried out independently often causes learners to experience difficulties that delay or prevent them from completion. Moreover, engaging learning over an extensive duration of study requires much more than the usual learning platform can provide. Thus, integrating a learning community site may encourage learners' commitment towards project progression and completion. The community features include: having the control to response in timely manner, categorising the postings, free membership, course discussions, and announcements offer significant added value. The learning community approach can also be further explored to ease the supervision process and improvement of the course quality. Continued research related to community building strategies is needed to enable the advancement of best practices in the dynamic context of the Web.

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