

Postgraduate students' experiences of the online forum in *Myguru2*

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The integration of ICT in the higher education setting has progressed tremendously for the past 15 years. Universiti Pendidikan Sultan Idris (UPSI) provides *Myguru2* as a platform to meet the demand. The study investigated the postgraduate students' experiences about the online group forum which is one of the features in *Myguru2*. Sixteen postgraduate students participated in the study to identify the issues and challenges in the online group forum. Results of the study showed that most of the postgraduate students perceived the online group forum as followed: 1) the online group forum was flexible, 2) it developed knowledge and thinking skills, 3) it provided a platform for students to exchange ideas and 4) it promoted active participation. Technical issues, poor internet connection, uninteresting discussion and time limitations were challenges in participating in the online group forum. Based on the results, suggestions for improvement were provided.

Keywords: *MyGuru2*, online portal, integration of ICT, higher education, postgraduate students

Introduction

For the past 25 years the development of computer technologies to support teaching and learning activities has increased tremendously in every area of education. According to Sheingold and Hadly (1990), e-learning is widely implemented not only in Malaysia, but also other countries in the world. E-learning provides the flexibility for students to learn at their own pace. It also supports teachers in enhancing the quality of education in concurrence with the rapid growth of society that embraces the emerging new technologies (Moore & Anderson, 2003). E-learning refers to various technologies including web-conferencing, open learning, social media communication, interactive media and digital learning. A study of e-learning is important in educational research as it places a strong emphasis on flexible learning approaches and the development of new technologies that can support teaching and learning activities.

The most popular e-learning tool is an online forum. An online forum is a text-based communication approach that promotes interaction among students and the lecturer on relevant topics. According to Kanuka (2005), text-based communication can promote

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the quality of learning experiences among students. Online forums can also enhance students' higher-order thinking skills (Perkins & Murphy, 2006). Previous studies have also suggested that students' participation in teaching and learning can be improved through online forums (Mason, 2011).

This clearly shows that online forums can bring benefits to students who are actively involved in them. Mason (2011) suggested that there are various levels of student engagement in online forums and that student engagement is influenced by various factors. The findings indicated that most students did not take part in the online forum either because they were demotivated or due to time limitations. Despite this, the lecturers or instructors did not play an active role in the online forum. Without a proper explanation of the task and encouragement from the lecturers, students were not really interested in participating in the online forum.

Although online forums are very popular as an e-learning tool, there are relevant issues and challenges related to them. According to Thomas (2002), the effectiveness of the online forum in promoting learning can be enhanced by giving opportunities for the users to be familiarized with this medium. Although online forums have been used intensively as a mode of communication, there is still a lack of research on their effectiveness and usage, particularly for postgraduate students taking part-time courses.

In this study, postgraduate students' experiences and issues with participating in an online forum are broadly investigated. Their experiences of the online forum were captured through the group forum, which is one of the features embedded in the University Integrated Management System (UIMS), or Sistem Maklumat Bersepadu Universiti (SMBU), known as *Myguru2*. The purpose of this study was to investigate postgraduate students' perception of the *Myguru2* asynchronous forum as a tool for learning. The following research questions provided a framework for the study:

1. What are postgraduate students' views about the asynchronous online group forum in *Myguru2*?
2. What are the challenges that are faced by postgraduate students participating in the asynchronous online group forum?

The strengths and weaknesses of an online forum

McKenzie and Murphy (2000) suggest that the implementation of an online forum as one of the teaching and learning approaches is important to reduce the space and time hurdles for students. It offers flexibility for the users to participate in the discussions as they can complete the tasks at any time and place (Collis & Moonen, 2006). The online forum offers a facility whereby students can learn at their own pace with ample time to read and write on the forums. It is the case that students are sometimes very highly motivated to respond to topics posted by the lecturers and sometimes they are not motivated to do so. Flexibility is therefore a very important feature, in order to suit the lifestyles of students who may have to fulfil other commitments to their careers and families.

Through the online forum, students have the opportunities to share their knowledge, thoughts and arguments with their classmates and lecturers. However, according to Inoue (2007), students need to actively involve themselves and create a rapport with their classmates and lecturer in order to avoid demotivation and isolation. The main factor contributing to the success of the online forum is the degree of interaction within the community in the online learning environment (Hisham & Rozhan, 2003).

The online forum provides equal chances for students to give responses (Robles & Braathen, 2002). It can improve the interaction among students and lecturers in online learning. According to Mason (1994), interaction increases the level of motivation and interest towards the subject. Students have the opportunity to share their ideas, formulate their arguments and express their ideas in their own words. This learning activity may lead to the development of deep learning and critical thinking, unlike face-to-face classroom discussions, in which only certain students respond to instructors' questions.

According to Gilbert and Dabbagh (2005), the online forum also allows students to work together in co-constructing understanding about the topics or issues. Therefore, the role of lecturers or facilitators is very important to ensure that students engage in the online forum. Facilitators should not make judgements on students' responses but they should work like a mentor or coach. They should engage students in the online forum by giving feedback and probing students to clarify their ideas by asking questions or prompting them to give examples. These approaches may support student learning through the online learning environment (Sanders & Wiseman, 1990). A study conducted by Rovai (2001) suggested that the lecturers' active involvement in the online forum might influence student learning.

The weaknesses of the online forum are also highlighted in the literature. One of the weaknesses is a lack of immediate feedback from the lecturers. This is a drawback of the asynchronous online learning environment. Petrides (2002) reported that the delay in responding to students' postings might demotivate students to participate in the online forum and lead to frustration among students, unlike face-to-face meetings, in which students and lecturers can give immediate responses to the issues.

Another weakness of the online forum is the students' accessibility to the internet. According to Richard et al. (2008), the integration of ICT in the teaching and learning environment relies not only on teachers' readiness to use ICT, but also on the availability of ICT, such as an internet connection and technological devices. Without sufficient facilities and resources, students may face difficulties participating in the online teaching and learning activities.

Another drawback of the online forum is the time students spend in planning their answers. According to Thomas (2002), student participation in an online forum requires a lot of planning. Students need to carefully craft their answers and do a lot of reading before they can post on the online forum. Time constraints might influence students' responses as they might employ a surface learning approach in order to complete the task (Dart & Clarke, 1991).

The features of *Myguru2* and an online forum

Myguru2 is an application that was developed by programmers and developers at the ICT Centre of University Pendidikan Sultan Idris in 2008. *Myguru2* is an open source system in terms of component, operating system, development application and database (Nazri & Wiraputra, 2012). It is compatible with all Web browsers and this feature is very important to ensure that all users can fully access the application. *Myguru2* can be accessed from anywhere at any time as long as students have an internet connection and this feature is very important to promote self-paced learning among students (Rosenberg, 2001).

Since 2008, UPSI has imposed a policy of e-learning to embrace the rapid growth of ICT as a tool to support teaching and learning activities. Lecturers and students are required to use *Myguru2* as a platform for sharing information and it allows lecturers

to manage their courses by making relevant changes to ensure they meet the needs of students. It contains various functions and features to support teaching and learning processes. *Myguru2* allows lecturers to carry out various teaching and learning activities such as creating and uploading teaching materials in any format, for example Microsoft Office, audio, videos, photos and hyperlinks. Figure 1 shows the teaching materials that are shared by the lecturer.



Figure 1. Teaching materials can be easily accessed by students.

Myguru2 allows a collaboration between students and lecturers through file sharing, online surveys and an online asynchronous discussion, which is the group forum. The group forum is managed by the lecturer as he or she has the authority to post a topic or topics that are relevant to the course. It provides a platform for students and lecturers to engage in intellectual online discussion on the topics. Interestingly, students can respond to the topic as many times as they want. They also have full access to view their peers' responses and make comments. Figure 2 shows an example of a topic that was posted by a lecturer on the group forum.



Figure 2. Example of topics posted by a lecturer on the online forum.

Myguru2 also has a feature to monitor students' participation in the group forum. The lecturer can view the number of students' responses in each forum in great detail. Based on the information that is generated from the monitoring system, the lecturer can take appropriate actions to ensure that all students take part in the group forum. He or she can ask students to participate in the online forum by sending private messages to students, making an announcement online or telling students in face-to-face teaching and learning sessions. Figure 3 shows the monitoring system that is available to help the lecturer to monitor students' responses in the group forum.



Figure 3. The monitoring system that is available in Myguru2

Methodology

The nature of the course

Curriculum Design and Instructions in Biology is one of the courses that is offered in the Biology Department at UPSI. It is a compulsory course for each postgraduate student who is pursuing a Masters in Biology Education and is offered every semester. In this course students investigate current studies and developments in curriculum and instructional reform efforts and examine innovate and creative teaching and learning strategies in biology. Students also learn about contemporary views on teaching and learning biology and its implications, designing and developing lessons that foster creative and critical thinking skills.

Although this course is mainly carried out through face-to-face classroom meetings every week, it is also compulsory to engage students with online learning through *Myguru2*. In *Myguru2*, the lecturer can upload teaching materials, give instructions for assignments and engage students in online discussion through group forums. Every two weeks students are required to read articles on various issues related to curriculum design, teaching instructions and classroom management. Students are required to respond to at least two messages for each issue that is created by the lecturer in the group forum. The issues in the group forum are related to articles. Students have full control over their participation in *Myguru2* as they can access it using a browser and

a password. *Myguru2* allows students to fully participate in online learning such as responding to the group forum (asynchronous), sending private messages, downloading notes and articles and accessing instructions for assignments.

Participants

Sixteen postgraduate students who enrolled in the course participated in the study. There were 14 female students and two male students. Of the students, 80% were part-time and only 20% were full-time. Most of the part-time students were teachers at government schools and they were unable to be at the campus during weekdays as they had commitments at schools. Therefore, most of the postgraduate courses are conducted on Friday and Saturday, in order to meet the needs of the part-time students.

Data collection and analysis

The data were analysed by the qualitative method. Students were required to share their experiences of the online group forum in the open-ended questionnaire. It was distributed to students after they completed 14 weeks of the course. All students' contributions on the group forum were collected. Qualitative data analysis consisted of coding the responses to the open-ended questionnaire. Six main themes were identified. Another two researchers also coded the responses of the open-ended questionnaire individually. They then compared the themes to identify differences and similarities between them. The development of themes was carried out to obtain a more comprehensive understanding of the students' views and challenges in participating in the online group forum.

Results

Findings show several trends in postgraduate students' views on the group online forum and challenges that hinder them from participating in it. The research questions have been used to present the data.

i. What are postgraduate students' views on the asynchronous online group forum in *Myguru2*?

The findings of the study showed that postgraduate students' views on the online group forum in *Myguru2* could be grouped into four main themes, as follows: 1) the online group forum was flexible, 2) it developed knowledge and thinking skills, 3) it provided a platform for students to exchange ideas and 4) it promoted active participation. These findings show that the online group forum provided opportunities for students to develop knowledge and thinking skills. The students suggested that they could gain more knowledge by participating in the online group forum. Jenna mentioned:

'I found that the forum helps me to develop knowledge and it is helpful for me to discuss with all my classmates'.

It seemed that the responses in the online group forum showed the development of students' knowledge. The students provided additional information as they responded to the topics that were posted on the online group forum. They supported their arguments based on facts and evidence that they retrieved from journal articles or books. For

instance, one of the online group forum topics required students to discuss the teaching approaches that promote critical thinking. She suggested possible questions that could be used by teachers to promote critical thinking. She also provided suggestions for teaching and learning activities that could be carried out to promote critical thinking. Figure 4 shows Devi's responses on the topic related to critical thinking.

Another essential ingredient in critical thinking instruction is the use of writing. Writing converts students from passive to active learners and requires them to identify issues and formulate hypotheses and arguments. The act of writing requires students to focus and clarify their thoughts before putting them down on paper, hence taking them through the critical thinking process. Writing requires that students make important critical choices and ask themselves (Gocsik, 2002):

- . What information is most important?
- . What might be left out?
- . What is it that I think about this subject?
- . How did I arrive at what I think?
- . What are my assumptions? Are they valid?
- . How can I work with facts, observations, and so on, in order to convince others of what I think?
- . What do I not yet understand?

Consider providing the above questions to students so that they can evaluate their own writing as well. Some suggestions for critical thinking writing activities include:

- . Give students raw data and ask them to write an argument or analysis based on the data.
- . Have students explore and write about unfamiliar points of view or "what if" situations.
- . Think of a controversy in your field, and have the students write a dialogue between characters with different points of view.
- . Select important articles in your field and ask the students to write summaries or abstracts of them. Alternately, you could ask students to write an abstract of your lecture.
- . Develop a scenario that place students in realistic situations relevant to your discipline, where they must reach a decision to resolve a conflict.

Figure 4. An example of a response from a student on teaching approaches to develop critical thinking.

The finding also suggests that one of the strengths of the online group forum was its flexibility. The students perceived the online group forum as flexible as they were able to respond to the forum at anytime and anywhere. Aliza liked the online forum, as she stated:

'It is easy, I can complete the task at any time.'

Similarly, Jamilah appreciated the flexibility that the online group forum offered her in terms of responding to it. She said:

'What I like about the online forum is I can do it during my leisure time'

Based on students' responses in the group forum, it was clear that students responded to the group forum at any time. There was no specific duration for students participating in the group forum. Some of the students preferred to participate in the evening and some of them at night. Figure 5 shows some of the timings of students' participation in the group forum.

Learning environment for developing critical thinking In my opinion, learning enviro ...	27 Nov 2015 05:31:14 PM	28 Nov 2015 07:37:04 PM	4 All Read	23
PROMOTE CRITICAL THINKING Assalamualaikum and have a nic ...	27 Nov 2015 12:20:29 AM	29 Nov 2015 11:48:36 PM	3 All Read	34
Promote critical thinking Assalamualaikum and good day e ...	26 Nov 2015 11:06:35 PM	26 Nov 2015 11:34:33 PM	2 All Read	28
Questions provoking critical thinking Problem solving can promote cr ...	26 Nov 2015 05:36:53 PM	30 Nov 2015 01:53:14 PM	7 All Read	47
Promote Critical Thinking In my point of view conducting ...	26 Nov 2015 04:20:56 PM	09 Dec 2015 06:39:45 PM	5 All Read	43

Figure 5. Timings of students' participation in the online group forum

The results of the study indicate that students perceived the online group as a platform for exchanging ideas among lecturers and students. It allowed students to share relevant information or comment on peers' opinions. They could attach and send relevant files to their peers. Based on the students' responses in the open-ended questionnaire, students suggested that the online group forum allowed them to share information and gain new information. Anita suggested that:

'I found that the online group forum allows me to share information with my friends and at the same time I can get information from my friends'

The online group forum allowed students to view posts from other students and lecturers. They could also make comments and suggestions on the issues posted by their peers. Figure 6 shows examples of some of the posts in the online group forum.

Re : Open Inquiry will facilitate students creative thinking
 Posted By : 13 Dec 2015 08:32:43 PM
 Reply To : 09 Dec 2015 01:08:07 AM
 Attachment : No File Attach

Hi Teacher,

I am really interest with your lesson plan using open-inquiry. Actually,Students are more involved in the construction of knowledge through active involvement. The more interested and engaged students are by a subject or project, the easier it will be for them to construct in-depth knowledge of it. Learning becomes almost effortless when something fascinates students and reflects their interests and goals. Thank you

Re : Open Inquiry will facilitate students creative thinking
 Posted By : 20 Dec 2015 09:26:13 PM
 Reply To : 09 Dec 2015 01:08:07 AM
 Attachment : No File Attach

Hi teacher,

I am agree with your points. Students learn more via experiment and group discussion. Students will observe, touch, hear any physical or chemical changes occur during experiment and they will evaluate, synthesize and think critically before come up with ththeir own conclusion. Group discussion help students share idea, argue, accept or reject friends opinion and let students think rather than memorize facts.

Figure 6. Students can view and make a comment on their peers' responses

The group online forum created active participation between students and the lecturer. Students suggested that the participation of the lecturer in the online group forum was important in getting feedback on their responses. They also found that the lecturers' comments allowed them to think further on their responses, as the lecturer asked relevant questions to probe more responses from students. Malik suggested that:

'The group forum is very good and engaging as the lecturer is actively involved in the forum and she asks questions that make me think of the answers'

Both the lecturer and the students took part in the online group forum. The lecturer not only created the topics but also gave comments on students' responses. She engaged students in the forum by asking questions that could help students to extend or clarify their answers. Figure 7 shows an example of the lecturer's response to a student's answer in the online group forum.

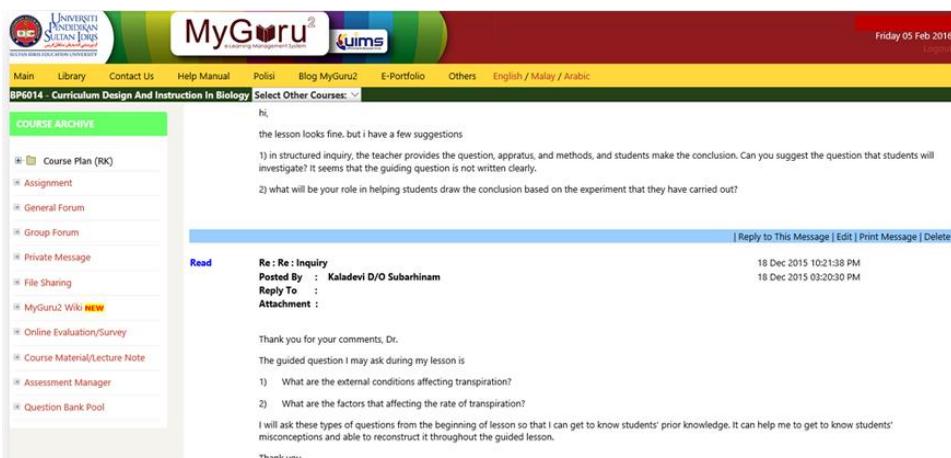


Figure 7. A lecturer and a student's involvement in the online group forum.

ii. What are the challenges that are faced by postgraduate students participating in an asynchronous online group forum?

Despite the benefits that participants receive from the online group forum, the study reported that they found that technical issues, poor internet connection, uninteresting discussion and time limitations were challenges in participating in the online group forum. The main problem that emerged from the open-ended questionnaire was the technical issues. They found that *Myguru2* is not user-friendly enough, as it does not have a function to remind students about the latest update on the online group forum. Azila argued:

'I found that Myguru does not have notifications. I have to open it regularly to check any updates from friends and my lecturer. I do not realize that my friends have responded to my posts'

They also suggested that another challenge in participating in the online group forum was the accessibility to *Myguru2*. Their concern was reflected in their responses in the open-ended questionnaire, which showed that it took a long time to load the information on *Myguru2*. They also suggested that those situations might demotivate them from taking part in the online group forum. Maria suggested:

'I have to wait for a long time to load the information. I felt bored to respond to the online group forum'

Another challenge in participating in the online group forum was the responses from students. They found that peers' responses on the topics affected the ways in which they responded to the online group forum. Some of the responses did not reflect on the topics posted by the lecturer. Leong said:

'I found that my friends' responses on the forum are boring. I hardly understand the posts and some of the information shared by my friends is boring'

Lastly, the participants believed that participation in the online group forum was time-consuming. The topics posted in the online group forum required a lot of commitment from the students. They had to read articles before responding to the topics. Suzana stated:

'The online group forum is very time-consuming. I have to read a lot of articles before I can respond to the forum'

Discussion

This study looked at postgraduate students' views of the online group forum and its limitations. It seems that the themes that emerged from the open-ended questionnaire are similar to findings that have been identified in previous studies. The study reinforces the finding that flexibility of participation in online forums is one of the factors that might be useful in online learning. This is supported by a study conducted by Collis and Moonen (2006), which found that online forums provide opportunities for students to participate in the forum at their own pace. This feature is very important in our study as most of the postgraduate students enrolled on the course are part-time students, who have to fulfil responsibilities in their careers as most of them work as teachers in government schools. Another aspect that emerged from the findings is that online forums promote learning experiences involving knowledge sharing. This aspect is not only highlighted by students in the open-ended questionnaire, but is also portrayed in their responses in the group forum. It concurs with a previous study conducted by Mason (1994), which found that students can participate in online learning by sharing ideas, expressing ideas in their own words and debating peers' ideas. The learning activity may promote deep learning and engage students with higher-order thinking.

The opportunity to develop knowledge among students is another aspect that is highlighted in the study. It demonstrates that the online forum provides a place for students to develop their knowledge. This aspect is portrayed in their posts in the online group forum and is similar to the findings of a study conducted by Gilbert and Dabbagh (2005), which highlighted the importance of knowledge construction while students engage in online discussion. The knowledge construction taking place in the online forum can be enhanced with the participation of the instructors. Active participation by lecturers

in the online forum increases the level of participation among the students. It also promotes the motivation of students to participate in the online forum. This finding is supported by a study conducted by Ravio (2001), who highlights that there is a positive relationship between lecturers' participation and students' responses.

Several limitations of the online group forum emerged in the findings. One such issue, technical problems, is not a new criticism in previous research. The technical issues highlighted in the study included poor internet connection and a lack of notification after receiving feedback from lecturers and peers. Technical problems should not be neglected because without a good internet connection, relevant notifications and appropriate ICT devices, students might be demotivated to participate in the online forum. This theme is similar to the findings of a study conducted by Richard et al. (2008), who highlighted the importance of good ICT facilities for supporting student learning in the online learning environment.

Another issue highlighted in the findings concerns the students' responses. Some of the responses were irrelevant to the topic in the forum. This issue might be related to their understanding of the goal and/or objectives. Without a clear understanding students might not be able to respond appropriately. The design of the instruction should be improved to ensure that students have a clear picture of the topic being discussed. A suitable approach should be implemented to ensure that students are given opportunities to ask questions in order to improve their understanding about the topic discussed in the online group forum.

Another theme that emerged in the study is the time-consuming nature of the online forum. Apparently students need a lot of time to prepare their answers, yet they did not receive immediate responses, unlike discussion in face-to-face meetings, in which students can get immediate feedback from peers and lecturers. This finding is similar to a study conducted by Thomas (2002), which suggested that the online forum required a lot of time and effort as it is less interactive and does not promote discussion. This might demotivate students to participate in the online forum and lead to frustration (Petrides, 2002).

Conclusion

This study suggests several implications for practice and research. Firstly, UPSI is moving forwards in online learning through the use of *Myguru2*. However, it seems that the means to support students to actively take part in the online forum are inadequate. *Myguru2* should incorporate user-friendly tools that allow users to receive notifications of any updates on the online forum through emails or text messages (sms). It is very important to facilitate a high quality discussion in the online learning environment, especially through the dedicated learning management system to maximize student learning and motivation. Next, the participation of lecturers in the online forum plays a significant role, as this may build a rapport among students and encourage positive participation. The lecturers are then no longer perceived as a knowledge feeder but as a peer in the co-construction of knowledge. Therefore, integrating proper strategies to engage positive participation among students in the dynamic online learning context is essential. It seems that the rapid growth in online learning not only brings benefits to students, but also issues and challenges. Each student may gain benefit and also experience unique challenges. Therefore, there is a need for future studies to be carried out to investigate best practice in supporting online learning among students.

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