

# **A STUDY ON STUDENT PARTICIPATION IN AN ONLINE SUPPLEMENTARY COURSE IN ZOOLOGY**

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## **INTRODUCTION**

With the advancement of information and communication technology there is a noticeable worldwide growth in courses offered online. These online courses are useful to satisfy the growing demand for time flexible learning opportunities and to provide learner centered teaching and learning environments. Taking steps towards development of online courses, the Open University of Sri Lanka (OUSL) first introduced online courses in 2003 and by 2010 the number increased up to 74 (Jayatilleke, 2010). Most of these courses are supplementary courses where no compulsory assessment component is offered online, some others as blended courses where at least 20% of the assessment component is offered online and the rest as online plus courses where more than 20% of the assessment component is offered online.

The OUSL uses Manhattan and Moodle learning management systems (LMS) for online course delivery. The Animal Development B. Sc, second year course was offered online as a supplementary course in 2007 using the Moodle LMS template designed for OUSL courses. The initial objective of introducing the online component was to provide additional material for understanding the course content. In 2008, this course was improved categorizing activities under the topics of the course in the front page for easy reference. In 2010, more learning resources were added based on a survey done for the entire course. Further, the tutorial submission was accepted only through online. However, the marks of tutorial assessment was limited to maximum 2.5 added as bonus marks to the continuous assessment (CA) mark, to be fair for the students who lack facilities and find it difficult to obtain them.

The low student participation in spite of the above attempts drove us to find new ways to increase student participation. In 2013, two improvements were added; 5% of CA marks were given for the tutorial submission and one hour time period from 9 – 10 p.m. was announced for chatting in the ‘Class Discussion’. Students were informed about the online component of the course, the activities available in it and the new improvements to it through the course information sheet delivered at registration. Further, at the first face to face student contact session (day school) and at the compulsory practical session of the course, an introduction to the online component of the course was given using a presentation. At the same time, the usefulness of the online component and the advantage of using ‘Class Discussion’ as a communication tool between student and teacher as well as among students were explained. As the participation for ‘Class Discussion’ was very low during the delivery, students were reminded at day schools to participate in it.

The research objective of this study was to

- assess the level of student participation in the online component,
- evaluate their preference of activities,
- investigate students’ perception about the usefulness and attractiveness of the course as well as their difficulties and
- investigate the future improvements needed for the course.

## **METHODOLOGY**

When the online course was ready for use with the uploading of students to the system, those who have registered for SMS service were informed by post and by an SMS message. As a part of the registration process took place after the commencement of semester, there was a 3

weeks delay to upload the course. Therefore, the introduction to the course was done with a presentation and not by logging into the course. The number of students registered for the course was 336, and the active student number was 302. Probably due to the incomplete registration process or a technical error, only 244 students could be uploaded even with the second attempt.

According to Black, Dawson & Priem (2008) the activity logs in the LMS is an important resource to collect information about participation of student in online courses, giving opportunity to measure variables without causing any impact or inconvenience to students. Hence, a part of this study used activity logging data in the Moodle LMS to investigate the level of student participation in the online component, in different activities and the time that students logged in. These data were transferred to Excel, sorted and analysed.

The evaluation of student participation, students' perception about the usefulness and attractiveness of the course as well as their difficulties in participation in the online component of the course was studied giving a short questionnaire to students who attended the final examination and were collected before they left the examination hall. The questionnaires filled by the students who followed the course in 2013 were selected and those incorrectly or incompletely filled were removed. There were 144 correctly filled forms and it was 48% of the active student number.

## **RESULTS AND DISCUSSION**

Of the uploaded 244 students, 166 have logged in to the course for at least one activity. This is approximately a 55% of all the active students and is 68% of the students uploaded to the system. Thus, the percentage of students not involved in the online cause was 32%. The results obtained from the questionnaire indicated a close value of 27%. The lack of ability to give hands-on experience on Moodle to students due to the high number in the course would have made this percentage high. A similar study done at OUSL has experienced only a 17% non-involvement. The success has been owing to low student number (55), provision of hands-on experience at the introductory session and grouping students online for the compulsory practical session (Liyanage, 2010).

Of the 166 students who have used the online component only 16 (0.1%) have viewed 'Contact information' of the teachers and 5 (0.03%) have viewed the 'Tutorial questions' given. The basic information given about the use of Moodle LMS and the study course has not been viewed by any of the students. These include 'Start Here', 'Announcements', 'Help wanted', 'Course information' and 'Grades' (CAT marks and Eligibility mark). This shows the students' non-usage of online information and their much dependence on the printed information. The preference of OUSL students for print medium than e-learning has been investigated in a study done by Ranasinghe & Gamini (2010).

Of the 166 students who have engaged in any of the activities, only one student (0%) was involved in the 'Class discussion' and there were only 4 posts by this student. Only 10 students (6%) have done at least one quiz, of the 5 available. The most involved activity was the 'Tutorial Assignment' and this compulsory assignment has been posted by 130 students (78%). Of the 9 Power point presentation (Ppts) provided, 100 students (60%) have viewed or downloaded at least one presentation. . However, a lesser number, 66 students (40%) have viewed at least one video clip of the 9 provided. The data obtained from questionnaires showed close values. Here, the number of students who had done any one activity was 105 (73%). Of these 105 students, 74 students (71%) have posted tutorial assignments, 58 (55%) have viewed or downloaded Ppts and 36 students (34%) have viewed video clips.

It seems that the students have targeted most on the tutorial submission and on learning resources in the online component. However, it is important to note that 22% who have logged into the online component have not posted the assignment. Fig. 1 shows the number of

students viewed the 9 Ppts and 9 video clips. It shows that even these two activities that are highly engaged with by the students have not been completely done by most of them. There were only 29 students who have used all Ppts. The low involvement in the quizzes may be due to the fact that they are multiple choice questions and this type of questions were given only at the Continuous Assessment (CA) Test 1, which was held one month after the commencement of course.

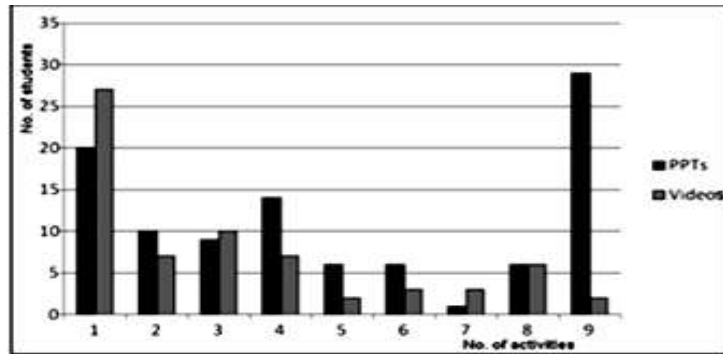


Figure 1: The number of students viewed the Ppts and videos

The most inadequate participation occurred in ‘Class Discussion’ as there was only one student involved. In the questionnaires, 47% indicated the lack of time for involving in discussion continuously while 23% indicated unpreparedness with the knowledge on course contents for discussions. Lack of internet facilities continuously has mentioned by 12%, while the others (18%) have mentioned difficulty in discussing in English language, which may have made them shy due to exposure into a larger community. Although short, simple questions were given from difficult areas in the course for discussion, the difficulty in understanding these areas may have discouraged students in discussing them. As the sense of being in a community is important to increase student satisfaction, learning and retention in online courses (Rovai, 2002), students must be attracted towards ‘Class Discussion’ probably presenting very simple straightforward questions requiring short answers initially.

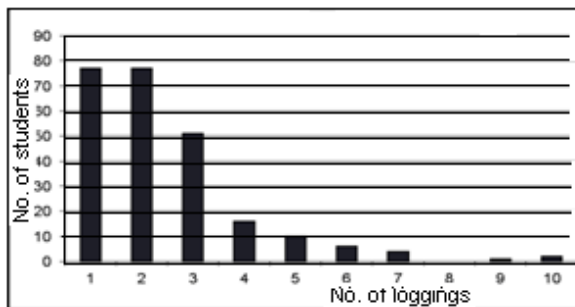


Figure 2: The number of loggings done by students.

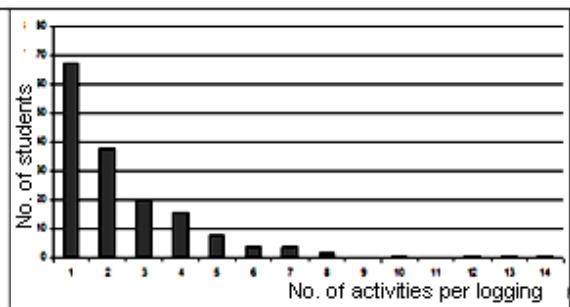


Figure 3: The number of activities per logging done by students

Fig. 2 illustrates that the number of loggings done by a student is mostly in the range of 1-3 and the average is 1.9. The number of activities done by a student per a logging is also very low (Fig. 3). This shows that students log into the online course rarely and they do not engage in much work even at the time they devote to it. This low participation can be due to the lack of time, low attractiveness of the contents or lack of resources. The lack of time seems to be a major factor, as 47% of students indicated in the questionnaires that the lack of time as the main cause for non-participation in the ‘Class Discussion’ and 35% of students who did not logged into the course have given lack of time as the reason. The rest have mentioned lack of internet facility (42%), the inability to log in to the course (14%) and unfamiliarity with the use of the computers (11%).

In the questionnaires, of those who used online component, 72% have said that the contents of the online component were considerably good. 23% indicated the need to have more learning material while 5% have said that it was not useful. When considering the number of loggings throughout the period the course was delivered (Fig. 4), more loggings can be seen before the tests indicating the use of material for studying purpose. As 67% students have viewed at

least one learning material, it was the most appealing part, except for the compulsory assignment. Therefore, it would be better to add more high quality learning material in the future to improve appeal. According to the logging time data, 63% students have logged in at least once out-of-office hours. This is almost similar to the data from questionnaires that indicated 66% of students have accessed from their homes. According to log reports, 34% have logged in only during office hours. This value is similar to data from questionnaires; 23% access by OUSL or National Online Distance Education service (NODES) facilities added to 11% access by facilities of offices or friends. This shows that considerable number of students have their own resources to use.

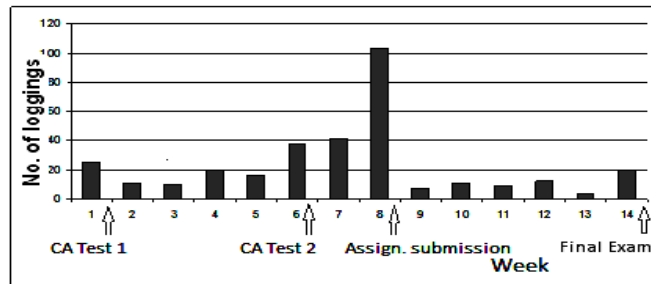


Figure 4: The number of students logged per a week through out the course delivery period.

## CONCLUSIONS/RECOMMENDATIONS

This study indicates that students hardly find time for the online component even with different learning resources. Therefore, the learning resources added must be of very good quality, useful ones which save considerable time spent on understanding course material. Also, it shows that the online learning and discussion forums are unfamiliar to students and new strategies are needed to attract them until they realize the value of being in an interactive learning community.

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