A Study of the Effectiveness of the Class News and Announcement Forum as a Medium of Communication on a Course Moodle Page in a Pre-Degree Course

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ABSTRACT: This study explores the effectiveness of the Class News and Announcement forum on the LLFXX Moodle page to make announcements and give general instructions to students. It also investigates whether there is a correlation between students' Moodle logs on the Class News and Announcement forum and the different components on the Moodle page featuring the announcements. These Moodle components were classified as different forms of engagement (student to content, student to instructor, student to other students, student with the learning environments, student with assessments, and student with feedback). The association between the correlations was also examined. This research involved 80 Blended mode students from the LLFXX course (pre-degree course). Their Moodle logs were correlated (p-value) with the different components on the LLFXX Moodle page (forms of engagement) using Pearson's Product Mean Correlation Coefficient test in SPSS. Those engagements that correlated were further studied for the degree of association (r-value). Most of the engagements correlated with the Class News and Announcement forums and the related components on the Moodle page. As a result, it can be concluded that the Class News and Announcements on the LLFXX Moodle page are effective.

Introduction

Communication is essential in the teaching-learning process. Teachers need to communicate with students to teach them the content, to instruct them about any assessment that would be conducted, to inform them about any extracurricular activities that would be happening, to make announcements, and for many more reasons. For all these reasons, teachers and students need to communicate with each other and among themselves.

In a traditional setting, this is much easier as in a traditional classroom, teachers and students meet face-to-face; thus, communication can occur when needed. However, this becomes challenging in a virtual environment. Students and teachers are isolated and come online at their convenience. Consequently, how to appropriately use technology to serve an instructional purpose tends to be another challenge for online education instructors (Yang and Cornelious 2004).

As a result, a space on Moodle must be chosen for this purpose. Many times this is conducted on the Class News and Announcement forum.

Background

At the University of the South Pacific (a regional institute), Moodle is a crucial component for all courses for all modes of teaching (Face-to-face, Blended, Online, and Print modes). It connects all 12 campuses (Cook Islands, Fiji Islands, Kiribati, Marshal Islands, Nauru, Niue, Samoa, Solomon Islands, Tonga, Tokelau, Tuvalu, and Vanuatu) through satellite. The Flexible Learning Policy outlines a few categories of communication for students. These are learner to content, learner to instructor, learner to other learners, learner with the learning environment, learner with assessments, and learner with feedback (Flexible Learning Policy).

Most of the courses have Class news and announcement forums to communicate with the students. As the name suggests, this is used to make announcements to students. LLFXX Moodle page has this component on its Moodle page and is used by the Course Coordinator to make announcements to students at the main and regional campuses.

A Rationale of the Study

The Class News and Announcement forum is used across many institutes for communication with students, however, no study has been carried out in the Pacific, to find how effectively this forum fulfills this purpose. A teacher may post announcements in this forum regularly or when the need arises, but it is crucial to investigate if students respond accordingly.

Therefore, two research questions were formulated for this research:

1. Is there a correlation between the topics in the Class News and Announcement forum and the forms of engagement?

2. How closely are these Class News and Announcement and engagements associated?

Literature Review

Instructors need to communicate with the students in both, a traditional and a virtual classroom. Apart from communicating for imparting knowledge, they need to communicate to make announcements and give general instructions. It is easier in a traditional classroom as the instructor and students are in a face-to-face setting and thus communication is easier. The transition from the traditional face-to-face classroom to online learning can be successfully achieved and quality can be ensured if several key factors are closely examined (Yang and Cornelious 2004). In a virtual setting, a forum is used to post announcements and instructions. Many students prefer to use the Class News and Announcement Forum on Moodle.

Strategies such as the strategic use of discussion boards, collaborative assignments, and class announcements are employed to improve student learning without significantly increasing the workload of faculty (Joyce 2022). The use of video has been highlighted as one method to improve instructor presence and student engagement; however, research is limited on the most efficient ways for instructors to incorporate video into their courses (Hilton 2022).

Instructions need to be given to students on time and at the appropriate time. Students should be able to receive instructions without delay and act upon them promptly (Rosenshine 2012). Such components assisted instructors in improving their classroom instruction (Stringfield, Schaffer and Devlin-Scherer 1986, Bush 1984, Waxman 1986).

Students' feedback on these instructions and appropriate actions from these instructions is crucial (Zhao and Zhang 2020) as it shows the instructor how effective their instructions were and if students are accessing and receiving instructions from the forums. Within the context of the academic setting, following instructions or failure to do so can impede general learning and the development of desired proficiencies (Dunham, Lee and Persky 2020). Thus, it is crucial to choose to most effective forum on Moodle to make announcements and give general instructions.

Method

A quantitative research method was used to investigate the effectiveness of the announcements on the class news and announcement forum. 80 Blended mode students from the main campus (Laucala campus) were investigated for this study. These students were given the information sheet for this study. 80 Blended mode students showed interest in participating in this study. They were given consent forms to fill out as this gave their approval to use their data from the LLFXX Moodle page for the research.

At the end of the semester, students' Moodle logs from the LLFXX Moodle page were extracted and analyzed. The Class News and Announcements topics were correlated with the forms of engagement outlined in the USP's Flexible Learning Policy using Pearson's Chi-Square Test in SPSS. The extent of association between the correlations was analyzed using Pearson's Product Mean Correlation Coefficient Test in SPSS.

Results

The study results from the LLFXX Moodle page are analyzed and presented below. These results are classified into six forms of engagement as per USP's Flexible Learning Policy. These six forms of engagement are: students to content, students to instructor, students to other students, students to the learning environment, students to assessments, and students to feedback (The University of the South Pacific 2017).

Topics/Subjects in the Class News and Announcement Forum

Table 1. Topics/Subjects in Class News and Announcements
and their forms of engagement

Discussion	Engagement
28. LLFXX Special Exam	Assessment
27. LLFXX Special Exam	Assessment
26. Special Exam	Assessment
25. 2020 Semester 2 Grades	Feedback
24. Grades Information Semester 2, 2020	Feedback
23. Special Final Exam	Assessment
22. Foundation and Preliminary Studies-Completion of Programme	Environment
21. LLFXX Final Exam	Assessment
20. LLFXX Final Exam Date & Format	Assessment
19. Submission of Late Submissions	Assessment
18. Test 2	Assessment
17. Assessment 2 Due Date	Assessment
16. 2020 Student Fees	Environment
15. Special Test 1 Date	Assessment
14. LLFXX Coordinator: Ms. X	Learner
13. Special Test 1	Assessment
12. Assessment 1 Due Date	Assessment
11. LLFXX Test 1 Online	Assessment
10. LLFXX Test 1	Assessment
9. Test 1 is Open	Assessment
8. Test 1 Format	Assessment
7. BBB Session	Instructor/ Learner
6. Climate-Science Fiji Debate Registrations	Environment
5. BBB Sessions	Instructor/ Learner
4. LLFXX Semester 2 Study Schedule	Content
3. Introduce Yourself Please	Instructor/ Learner
2. Week 1 Lecture in Laucala	Content
1. Welcome to LLFXX in Semester 2, 2020	Environment

Table 1 shows that a total of 28 announcements were made to the students in the semester using the Class News and Announcement forum on the LLFXX Moodle page. The first announcement was a welcome note to all LLFXX students. This was classified as a student engagement with the learning environment. The second announcement was about the week one lecture on the Laucala campus. This was classified as a student-to-content engagement. The third announcement instructed students to introduce themselves on the Discussion Forum on the LLFXX Moodle page. This was classified as both, student to instructor and student to other students' engagement. The fourth announcement was about the semester study schedule and this was classified as the student-to-content engagement.

The fifth and seventh announcements were informing the students about the BBB sessions and thus were classified as student-to-instructor and student-to-other students engagement. The sixth announcement was informing the students about the Climate –Science Fiji Debate Registration and thus was classified as a student to the learning environment engagement.

The eighth announcement informed students about the Test 1 format. The ninth announcement informed students that Test 1 was open. The tenth and eleventh announcements also reminded students that test 1 was open. The twelfth announcement was about Assessment 1 (Assignment 1) due date and the thirteenth announcement was informing students about Special Test 1. All these announcements were classified as student-to-assessment engagements.

The fourteenth announcement was a reminder for students about the LLFFXX Course Coordinator and for them to direct all LLFXX-related queries to the assigned coordinator. This was classified as an engagement for the learners. The sixteenth announcement was a reminder to pay the semester's tuition fees. This was classified as a student-to-the-learning environment engagement.

The fifteenth announcement reminded students about Special Test 1. The seventeenth announcement was about Assessment 2 (Assignment 2) due date. The eighteenth announcement informed students about Test 2. The nineteenth announcement informed students about the submission of late assessments. The twentieth announcement was about the LLFXX Final Exam Date and Format. Announcement twenty-one was again informing students about the Final Exam. All these were classified as student and assessment engagements.

Announcement number twenty-two was classified as a student to the learning environment engagement as it reminded them to fill in the Programme Completion form. Announcement twenty-three informed students about the Special Exam and thus was classified as student-to-assessment engagement.

Announcements twenty-four and twenty-five were informing students about the grades (results) released. As a result, these two were classified as student-to-feedback engagements.

Announcements twenty-six, twenty-seven, and twenty-eight were reminding students about the Special Exam as this was the final opportunity for them to be assessed for LLFXX in that semester. Therefore, these three announcements were classified as a student to assessment engagements.
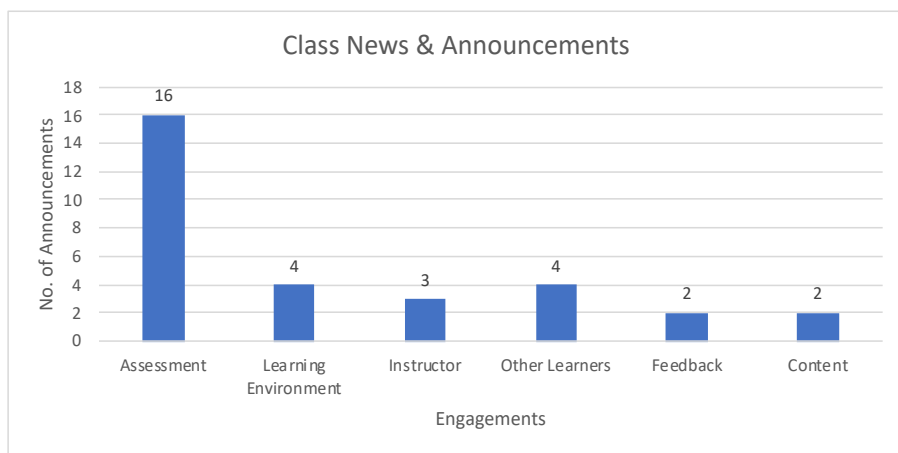
Forms of Engagement

Figure 1. Forms of engagement for the class news and announcement content

Figure 1 shows the Class News and Announcements categorized according to the various forms of engagement (content, instructor, other learners, learning environment, assessment, and feedback) (The University of the South Pacific 2017). The highest number of Class News and Announcements (16) were about assessments. There were 4 Class News and Announcements that could be categorized as engagement with the learning environment and other learners respectively. 3 Class News and Announcements could

be categorized as engagement with the instructor. Engagements with the feedback and with the content were the lowest. There were 2 Class News and Announcements for feedback and content respectively. The Class News and Announcements for the learning environment, instructor, other learners, feedback, and content range from 2 to 4. They are close, however, the Class News and Announcements for assessment is 16. It is quite high compared to the other 5 forms of engagement.

Correlation using Pearson's Product Mean Correlation Coefficient Test

Pearson's Product Moment Correlation Coefficient test is used when there are two quantitative variables and to check for a linear relationship between those variables.

This test looks at two things. Firstly, it shows Pearson's correlation which shows the association the two variables have with each other. If the variable on the Y axis increases, so should the variable on the X axis. This correlation is signified by the use of r.

The r in linear relationship shows the following:

If r is:

0.7 < 1   then the linear is a very high/very strong correlation,

0.5 < 0.7   then there is a high/strong correlation,

0.3 < 0.5   then there is a medium correlation,

0.1 < 0.3   then there is a low/weak correlation, and

0 < 0.1,   then there is no apparent correlation.

Secondly, Pearson's Product Moment Correlation Coefficient shows the p-value of the two-tailed test. If the p-value is < 0.05, then there is evidence of a statistically significant bivariate association between the two continuous variables

Pearson's Product Moment Correlation Coefficient test in SPSS is used to analyze the correlation between the statistical data. Before using SPSS to carry out the test, it was formulated that:

Ho: there is no correlation between students' Moodle logs on content and other forms of engagement on the LLFXX Moodle page.

H1: there is a correlation between students' Moodle logs on content and other forms of engagement on the LLFXX Moodle page.

Using a two-tailed test, the test variable (p) was calculated.

If,

p < alpha - result is statistically significant (correlation),

meaning there is a correlation (alternative hypothesis) between two variables.

However, if,

p > alpha - result is statistically insignificant (no correlation)

and shows that there is no correlation (null hypothesis) between the two variables.

Table 2. Correlation between class news and announcements subjects and the forms of engagement

Correlation	p-value	r-value
Class News and Announcements and content	<0.001	0.404
Class News and announcements and instructor	<0.001	0.861
Class News and announcements and other learners	0.012	0.280
Class News and Announcements and learning environment	0.291	-0.064
Class News and Announcements and assessments	0.022	0.204
Class News and Announcements and feedback	0.026	0.202

Table 2 shows the correlation and association between the subjects of Class News and Announcements posts and the different forms of engagement using Pearson's Product Mean Correlation Coefficient Test. The test showed that the p-value for the correlation between Class News and Announcements and the content was <0.001 (alternate hypothesis) and the r-value was 0.404. This shows that the association between the Class News and Announcements and the content is of medium strength. Similarly, the p-value for the correlation between the Class News and Announcements and the instructor is <0.001 (alternate hypothesis). The r-value is 0.861 showing that there is a strong association between this correlation. The p-value (0.012) accepts the alternate hypothesis emphasising that there is a correlation between the Class News and Announcements and the other learners. The r-value (0.280) shows a weak association between this correlation. A 0.291 p-value shows that there is no correlation between the Class News and Announcements and the learning environment. P-value = 0.022 for the correlation between the Class News and Announcements and the assessments. A 0.204 r-value shows that this is a weak association for the correlation between the Class News and Announcements and assessments. P-value = 0.026 for the correlation between the Class News and Announcements and the feedback and a 0.202

r-value shows a weak association for this correlation. Apart from the learning environment, the other five forms of engagement (content, instructor, other learners, assessment, and feedback) have a positive association with the correlations. The only engagement with no correlation is between the Class News and Announcements and the learning environment.

Discussion

The research used Pearson's Product Mean Correlation Coefficient Test in SPSS to answer the two research questions.

The first research question investigated if there was a correlation between the topics in the Class News and Announcements posts and the forms of engagement. Apart from the learning environment, the other five forms of engagement (content, instructor, other learners, assessment, and feedback) correlated (a < 0.05) thus accepting the alternate hypothesis. The p-value was the same for the two engagements: content and instructor. $\alpha < 0.001$ (alternate hypothesis) for these two forms of engagement. $\alpha = 0.012$ for the other learners and Class News and Announcements, accepting the alternate hypothesis (correlation). There is a correlation between Class News and Announcements and the assessments ($\alpha = 0.022$). $\alpha = 0.026$, thus proving a correlation between the Class News and Announcements and the feedback.

However, there is no correlation between the Class News and Announcements and the learning environment. $\alpha = 0.291$ thus accepting the null hypothesis. From the six forms of engagement (content, instructor, other learners, learning environment, assessments, and feedback), only the learning environment did not correlate with the Class News and Announcements. The remaining five forms of engagement (content, instructor, other learners, assessments, and feedback) showed a correlation with the Class News and Announcements as their p-value was < 0.05. This shows that the students read the Class News and Announcements and act as instructed by engaging with the assessments, feedback, content, instructor, and other learners. This proves that posting instructions on the Class News and Announcements is very effective for the students at the pre-degree level, more specifically for LLFXX.

With a very favourable result for correlation (alternate hypothesis) between the Class News and Announcements and forms of engagement; it was crucial to study the strength of association between these forms of engagement and the Class News and Announcements. A strong association

was proved between the instructor and the Class News and Announcements (r = 0.861). A medium strength of association (r = 0.404) was recorded for the Class News and Announcements and content.

In contrast, the strength of association is weak between the remaining three engagements (other students, assessments, and feedback) and the Class news and Announcements. The strength of association between the Class News and Announcements and the other students is weak, as r = 0.280, and the r value for Class News and Announcement and assessments is 0.204 (weak). The r value for Class News and Announcements and feedback is 0.202, thus the strength of association is weak.

These results show that at the pre-degree level, the students are utilizing the Class News and Announcements quite effectively. It means that they read the announcements and participate with the relevant form of engagement (content, instructor, other students, assessment, and feedback) as classified in the USP's Flexible Learning Policy (The University of the South Pacific 2017). There is a positive association between the Moodle logs of these forms of engagement and that of the Class News and Announcements.

The only form of engagement which did not get a statistically significant correlation was the learning environment. The announcements that were classified as learning environment engagement were not important or needed immediate attention and thus students may not have been interested in responding to them.

Conclusion

The study has shown that the Class News and Announcement forum is effectively used and adhered to by the students at the pre-degree level (LLFXX). The twenty-eight announcements were categorized and tested with the various forms of engagements using Pearson's Product Mean Correlation Coefficient Test in SPSS. Except for one form of engagement (the learning environment), the other five forms of engagement (content, instructor, other students, assessments, and feedback) have a statistically significant correlation and a positive strength of association with the Class News and Announcement.

A limitation of this study is that it should have looked at students from the twelve regional campuses rather than the main campus (Laucala) only. Studying the twelve regional campuses could have given more enriching data and a more concrete foundation for this study.

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