

eLearning Sandbox Review Update: Fall 2014

Student Achievement in Flexible Learning Environments

(As titled in the IRB)

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Submitted to
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INTRODUCTION

The justification, explanation of the project, and brief literature review were previously discussed in the fall 2013 report. Therefore, this paper will only discuss the findings of the fall 2014 data.

METHOD

During the fall of 2014, four faculty fellow alumni used the classroom in A124. These four instructors taught five classes in the Flexible Learning Environment (FLE) that eLearning lovingly calls the Sandbox. Unfortunately, reporting requirements were misunderstood and student surveys were not required by all instructors. In the end, fourteen students completed the post-experience survey. The post-experience survey, along with class average of final calculated grades were used to shape this final report. Furthermore, instructors gave feedback at the end of the semester through interviews, emails, and surveys.

RESULTS

The five courses studied in the FLE were Calculus I (M 171), College Writing I (WRIT 101), Accelerated Developmental Writing (Writ 098), Oral Anatomy for Hygienists (DENT 118), and Special Topics- Print to Film Adaptations (LIT 291). Data was collected from end of course surveys and the final calculated grades in all courses.

The range in Table 1 shows scores stay about the same or improve slightly in the Flexible Learning Environment. However, most are not a statistically significant difference. The only course that shows a significant difference is WRIT 098 with a difference in the range of 63.17.

Course	Code	Min%	Max%	Mean	Range
DENT 118	201470 FLE	84.73	97.06	91.88	12.33
	201370 FLE	87.03	98.60	93.49	11.57
	201270	83	96.19	88.86	13.91
WRIT 101	201470 FLE	20.48	100.00	79.64	79.52
	201370 FLE	7.03	98.29	62.70	91.26
CALC 171	201470 FLE	21.74	97.08	69.71	75.34
	First time taught				
WRIT 098	201470 FLE	71.25	100	92.32	28.75
	201370	6	97.92	70.89	91.92
LIT 291	201470	53.44	99.85	84.97	46.41
	First time taught				

Table 1: Comparison of Flexible Learning Environment (FLE) Class to Standard Class

STUDENT SURVEY RESPONSES

In the exit survey, the team asked students to share the best experiences as well as recommended improvements. Students' responses varied greatly. Some enjoyed the experience, but there were at least two that did not. The comments include:

“It was a good class experience.” (Dental Student1, 2014)

“The mixed mode model may be suitable for some curriculum; however, some curriculum is better suited for the traditional classroom lecture. Some material, like that associated with anatomy, is not suitable because it requires more instruction to help clarify the text material.” (Dental Student3, 2014)

“The sun coming through the windows was nice and uplifting.” (Literature Student1, 2014)

“The mac system was a bit hard to work with since most students use PC's and the compatibility (sic) with the classroom computers caused a bit of hassle.” (Literature Student 2, 2014)

FACULTY SURVEY RESPONSES

Similarly, faculty were asked to respond with recommendations and reflections on their work in the FLE.

The Math instructor responded:

“Calculus is a difficult course for most first year freshman. It is a challenging course and the students are still adapting to college. Having classes in the sandbox helped make the learning environment more comfortable for students facilitating discussions that were more vibrant than in a typical classroom.”

And:

“Teaching in the Sandbox classroom always inspires me to do more and develop lessons that would not be possible in other classrooms.”

The Dental instructor included the following:

“The students once again learned the anatomy material in greater depth and with more understanding than before I started using the Sandbox teaching environment and flipping certain lessons. This was evident in exam scores as well as their ability to transfer the knowledge they gained in anatomy to their local anesthesia course they are taking this semester. “

SUMMARY

The fall of 2014 was a year of repeats. Our alumni returned to the Sandbox with new classes and fresh ideas. However, due to the fact that they had changed their teaching methods previously, there was no significant change in class averages, final grades, or range of final grades. The Flexible Learning Environment proved to be an inviting space for most students and instructors. However, the small size of the room continues to be one comment that appears in the student surveys. The views of this dental student express her dislike of the environment clearly. “I think the classroom is too small for a class size of 20 or more people and I think subjects like anatomy are too much of a difficult subject to learn and understand for students for it to be a student driven course.”

REFERENCES:

Flood, C. (2015) Post Experience Faculty Survey. Great Falls College Montana State University.

Williams, R. (2015) Post Experience Faculty Survey. Great Falls College Montana State University.

DATA FROM STUDENT SURVEY

My expectations for this course were met or exceeded.

True	10
False	4

Describe how much you agree with the following statement:

The flexible learning space (sandbox classroom) combined with the mixed mode model improved my learning.

	Total
Strongly Disagree	2
Disagree	1
Neutral	3
Agree	2
Strongly Agree	4

The flexible learning space (sandbox classroom) increased my desire to attend class.

	Total
Strongly Disagree	1
Disagree	1
Neutral	4
Agree	3
Strongly Agree	3

The mixed mode teaching model improved my class attendance.

	Total
Strongly Disagree	2
Disagree	1
Neutral	4
Agree	2
Strongly Agree	3

The instructor was well prepared for class.

	Total
Strongly Disagree	2
Disagree	0
Neutral	4
Agree	3
Strongly Agree	3

The technology in the classroom was easy to learn and use.

	Total
Strongly Disagree	1
Disagree	0
Neutral	2
Agree	4
Strongly Agree	6