Using Blogger to Improve Student Engagement & Learning

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BACKGROUND & SIGNIFICANCE

- A sense of community has been shown to have a positive relationship with perceived greater cognitive learning (Rovai, 2002).
- Use of blogs has been shown to create a high degree of group cohesion & social presence, an important component of learning that is difficult to attain in the virtual setting (Jimoyiannis & Angelaina, 2012).
- Community of Inquiry Framework, core elements of a collaborative constructivist learning environment:
  1) cognitive presence - the ability of learners to construct meaning through reflection and discourse;
  2) social presence - the ability of participants to feel connected to each other in the absence of face-to-face (f2f) contact; and
  3) teaching presence - the design, facilitation and direction of the processes needed to support learning.

RESEARCH QUESTIONS

1. Does the use of Blogger increase the sense of community for students?
2. Does the use of Blogger increase student engagement in learning?
3. Does the use of Blogger increase student ability to achieve course objectives?

METHODS

- Google Blogger was used in two courses: Quality and Operations (N631) & Strategies for Teaching in Nursing (N672)

RESULTS

Survey Feedback

Aspects most valuable to learning

- "Ability to speak freely yet intelligently using course materials"
- "Interactions with others in course while in our blogs. It is very user friendly."
- "Being able to read other's posts and interact with them"
- "It challenged me to use a technology I was not familiar with. It kept me engaged in subject content"
- "Flexibility to perform on own time"
- "Good way to meet with other students and discuss ideas"
- "A new tool that could be integrated into my learning and career. It provided an alternative to C-Tools."

Table 1: Student Performance Comparison on Discussion Posts

<table>
<thead>
<tr>
<th>Course</th>
<th>Learning Theories</th>
<th>Clinical Evaluation</th>
<th>Critical Thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>N672-Blogger</td>
<td>0.04</td>
<td>0.77</td>
<td>0.73</td>
</tr>
<tr>
<td>N672-C-Tools</td>
<td>7.67</td>
<td>6.67</td>
<td>6.67</td>
</tr>
</tbody>
</table>

*Grading scale 1-10 for each Discussion Post

Social Network Analysis-Level of Connections

Blog Exemplars

N672 (n=14) In the network figures above, each circle represents a student. When another student posts a comment on an individual's blog post, the link is represented by a line with an arrow pointing to the circle. The size of the circle represents a measure of "centrality" based on the number of links. The circle colors show differences in the number of "inlinks" for the student. The red lines show links that are outgoing only. The blue lines are "reciprocal" meaning the two students commented on each other's blog posts. The line thickness is based on the number of comments.

N651 (n=7)

ACKNOWLEDGEMENTS

For sense of community to develop, students must have opportunities for connection (e.g. required blog posts)
- Teaching the students how to use the blog features (e.g. embedded videos, hyperlinks) up front will provide a more connected environment and reduce student frustration
- Course content may impact the level of creativity in the blogs and requires varying degrees of teaching presence to facilitate engagement.
- Visualization of student social networks can aid in strategically designing blog assignments to increase connectivity.

SUMMARY

- Blogger provided a venue for student engagement and social presence: 62-64% of the posts had a 'social presence' focus area.
- Students found value in using the Blogger and recommended using it to other students.
- Student feedback was positive and found blogs to be easy to use.
- Student liked the flexibility of using blogs.
- Students using Blogger were able to achieve course objectives better than those that used C-Tools Forum.
- Network analysis indicates that some students were more engaged with their classmates via the blog.

CONCLUSIONS

- We would like to thank the Investigating Student Learning (ISL) Program, funded by the University of Michigan Office of the Provost, the Center for Research on Learning and Teaching, and the Provost’s Learning Analytics Taskforce.
- We would also like to thank Dr. Christine Anderson for her assistance with the social network analysis.